

# Return on Equity of Listed Manufacturing Companies and Government Spending On Security in Nigeria (1990-2015)

Odunlade Olajire Aremu, Adegbe Festus Folajinmi, Akintoye Ishola Rufus

**Abstract**— In this study we focused on the effect of government expenditure on security on the Return On Equity of manufacturing companies in Nigeria. The study adopted ex-post facto research design. a sample size of 20 was purposively selected from the population of 83 manufacturing companies in the country as at 2016. Secondary data were obtained from published financial statements of listed manufacturing companies in Nigeria, publications of government and the World Bank. Validity and Reliability of the data were based on the reports of external auditors and other regulatory agencies. The data were analyzed using descriptive and inferential statistical methods. The study found that government spending on Security did not have significant effect on the financial performance of the manufacturing firms.  $ROE(\beta_2=2.558, t=0.752, p>0.05)$ .

**Index Terms**— Return On Equity, Government Spending on Security, Manufacturing Companies.

## I. INTRODUCTION

**Highlight** One of the functions of government is to ensure the protection of citizens, organizations, and institutions against threats to their well-being and the prosperity of everyone in the country (Rothbard, 2013). This is done through the setting up of necessary security arrangement that enhances the confidence of the business world and other stakeholders (Rothbard, 2013). This is the basis for so much money spent on security by nations across the globe (Dunne & Perlo-Freeman, 2003). Incidentally security challenges is on the increase all over the world and therefore business organization will only want to operate in an environment where this threat to their operation is reduced significantly (Rothbard, 2013). Security issues observed by him include; robbery, terrorism, burglary, trespassing, harassment, juvenile delinquency, unauthorized living, and other inappropriate social behavior. Rothbard (2013); was of the opinion that since organized crime is not limited to a geographical location or country that business organizations also need to complement efforts of public authority to maximize the security of the environment where they operate. However the greater part of the responsibility he said rest with the public institutions like the army, the police, customs

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and other paramilitary agents. Secured and stable environment significantly contributes to attractiveness of a location for business plants, its success and therefore economic prosperity of the people (Benoit,1978). For this reason Public institutions charged with the responsibility of ensuring the security of life and properties need to be strengthened to ensure a secured environment for business operations (Benoit,1978).

This has been the driving force behind huge budgetary allocation to defense and security by governments of many countries all over the world (Degerand Sen 2013). This crucial role of security in the industrial growth informed the so much money expended by government of countries of the world on security and defence. In 2012, the United States which is the biggest spender on security and defence budgeted a whopping sum of \$683 billion, to rank first among the powerful nations of the world, next to it was China with the sum of \$166 billion, Russia came third with the sum of \$90.7 billion. Among the top ten countries Italy came 10<sup>th</sup> with \$34 billion. This year Nigeria budget on defence and security was N755billion equivalent to about \$5billion In spite of the so much spent by the Nigerian government relative to the total budget of the nation, security situation in Nigeria still poses a great challenge to the development of manufacturing sector (Nigeria-South Africa Chamber of commerce, 2016).

### A. Statement of the Problem

In the recent time Nigeria has witnessed unprecedented level of insecurity, for this reason the nation was ranked low in 2012 by the Global Peace Index. Nigeria was ranked 139<sup>th</sup> in the world. This has been attributed to the activities of terrorists and kidnappers, pipeline vandalization, Niger-delta crisis and suicide bombing and ritual killings (Otto and Ukpere, 2012). This security situation in Nigeria still poses a great challenge to the development of manufacturing sector (Nigeria-South Africa Chamber of commerce, 2016). In 2006, the sum of N206billion was allocated to security in the budget while in 2015, it was N779billion (CBN, 2017).

However, the state of insecurity has continued to threaten sustainable business operations in the country. Business operations in the area of production, marketing, finance and human resource are highly impaired (Otto and Ukpere, 2012). This insecurity makes investment unattractive to potential investors, increase cost of doing business either through direct loss of goods and properties or the cost of taking precautions against business risks and uncertainties

(Essien, Tordee, Solomon and Felix ,2015). This study investigated government expenditure on security over the last twenty six years to determine the extent to which it has affected performance of the manufacturing sector in Nigeria.

## B. Objective of the Study

Examine the effect of government spending on security on Return On Equity of listed manufacturing companies in Nigeria

## C. Research question

What is the effect of government spending on power, roads, security and human capital on Return On Equity of listed manufacturing companies in Nigeria.

## D. Hypotheses

Government spending on security has no significant impact on Return On Equity of listed manufacturing companies in Nigeria.

### E Model Specification

$$ROE = \beta_0 + \beta_1 SECEXPit + \varepsilon$$

### Method of data analysis

The study adopted *ex-post facto* research design. Secondary data obtained from published financial statements of listed manufacturing companies in Nigeria, publications of government and the World Bank were analyzed using descriptive and inferential statistical methods.

## II. LITERATURE REVIEW

### A. Theoretic Framework

**Positive Accounting Theory:** Positive accounting theory developed by Ball and Brown, 1968; with contributions from Watts and Zimmerman (1977), is concerned with explaining accounting practice. It is designed to explain and predict the real world events and translate them to accounting transactions (Deegan, 2009). The circumstances of these transactions explain why particular accounting method is adopted by the preparer of financial

statements (Deegan, 2009). In this way Positive accounting theory is based on self-interest and rational theory

(Watts and Zimmerman, 1979). This is because Finance Manager will choose a method that will better report its performance. For example, managers may choose to use different depreciation method which lowers profits in the short run and higher profits towards the end. In the same way managers who have spent many years in their position will want to ignore any research and development costs which will lower current year profits and affect their income (Zimmerman, 1977)

The problem of finance manager in the public sector is how to select the activities that will maximize the benefits accruing to the public from the limited fund that is available to him (Amanand Hildreth, 2012). However, according to the positive theory of government budget there are a number of factors which influence this selection. More importantly political consideration takes precedence over public interest. In this circumstance activities chosen that satisfy the interest of the administrators is in most cases considered satisfying

the public. This explains the reason why most of the time activities chosen for consideration in the public spending are not based technically on the cost and the benefits of it to the public (Wildavsky, 1964). There are of course many stakeholders in the public expenditure, since the appropriation and distribution are the functions of public fund managers; each stakeholder evaluates expenditure performance from his perspective (Walker, 1930). Government spending in the public sector therefore is expected to affect positively all the stakeholders, through provision of public goods and services such as; electricity, clean water, good roads, security, ultra modern schools, efficient libraries and abundant parks (Walker, 1930). Watts and Zimmerman (1977), asserts that: the objective of positive theory of government spending is therefore to provide reasons for the government spending on specific activities included in the budget by the public finance managers and to predict the impact of such adoption on the performance of the government (Schick, 1998).

### B. Empirical Review

One of the functions of government is to ensure the protection of citizens, organizations, and institutions against threats to their well-being and the prosperity of everyone in the country (Rothbard, 2013). This is done through the setting up of necessary security arrangement that enhances the confidence of the business world and other stakeholders (Rothbard, 2013). One of the conditions that has become very critical to the internationalization of business operations across the globe is the issue of threat to security of life and properties (Dunne and Perlo-Freeman, 2003). Incidentally security challenges is on the increase all over the world and therefore business organization will only want to operate in an environment where this threat to their operation is reduced significantly (Rothbard, 2013).

Some of the security issues observed by him include; robbery, terrorism, burglary, trespassing, harassment, juvenile delinquency, unauthorized living, and other inappropriate social behavior. Rothbard (2013), was of the opinion that since organized crime is not limited to a geographical location or country that business organizations also need to complement efforts of public authority to maximize the security of the environment where they operate. However the greater part of the responsibility he said rest with the public institutions like the army, the police, customs and other paramilitary agents. Secured and stable environment significantly contributes to attractiveness of a location for business plants, its success and therefore economic prosperity of the people (Benoit, 1978). For this reason Public institutions charged with the responsibility of ensuring the security of life and properties need to be strengthened to ensure a secured environment for business operations (Benoit, 1978).

This has been the driving force behind huge budgetary allocation to defense and security by governments of many countries all over the world (Degerand Sen 2013). This crucial role of security in the industrial growth informed the so much money expended by government of countries of the world on security and defence. In 2012, the United States

which is the biggest spender on security and defence budgeted a whopping sum of \$683 billion, to rank first among the powerful nations of the world, next to it is China with the sum of \$166 billion, Russia came third with the sum of \$90.7 billion. Among the top ten countries Italy came 10<sup>th</sup> with \$34 billion. This year Nigeria budget on defence and security was N755billion equivalent to about \$5billion

**Table 1 Top 10 Countries With The Highest Security And Defense Budgets In 2012**

Rank	Countries	\$ billion
1	United States	683
2	China	166
3	Russia	90.7
4	United Kingdom	60.8
5	Japan	59.3
6	France	58.9
7	Saudi Arabia	56.7
8	India	46.1
9	Germany	45.8
10	Italy	34

**Source: Yearbook of the Stockholm International Peace Research Institute (SIPRI), 2012**

The remarkable progress made by Israel on industrialization has been due to its consciousness over the external threat to the security of the country. In spite of the fact that the country is a developing nation, government spending on defense and security provided a secured environment which significantly attracted industries into critical sectors of the economy and of course the performances of these industries in terms of the output and contribution to government revenue (Deger and Sen, 2013).

Investment both national and international provides a good drive for industrial progress in nations of the world and therefore a liberal environment increases the level of investment and brings significant benefits; including job creation, more efficient resource allocation, and social and environmental progress (Benoit, 1978). These very important roles which investments play particularly with international investments has made governments of nations of the world to pay serious attention to national security to guarantee a secured environment for business organizations (Deger and Sen, 2013). Israel is one of the nations of the world where government expenditure on security has been on the increase in view of the relatively high security challenges facing the country (Deger and Sen, 2013). Even at this, the nation has continued to experience a rapidly growing and relatively developed level of Industrialization. Defence spending of this country is also supported by the United States thereby giving the economy a leverage for accelerated level of industrialization. This is not unexpected because of the role

military expenditure plays in providing a secured environment for business organization.

Among the EU-28, Classification of the Functions of Government (COFG) shows that expenditure of government on defence, public order and safety has increased tremendously as at 2015. In 2015 Greece expenditure on security was 2.7 % of the Gross Domestic Product (GDP), United Kingdom recorded 2.1 % of GDP, Estonia 1.9 % of GDP and France 1.8 % of GDP. On the average expenditure on defence in EU-28 was 1.4% of GDP in 2015 while it was 1.2 % of GDP in 2014 (Eurostat Information, 2017). The defence include; military, civil, foreign military, Research and Development (Eurostat Manual, 2015). This increase in government spending on security was also reemphasized by Dunne and Perlo-Freeman (2003). According to them, various empirical studies on government expenditure on military show a positive statistical relationship with threat to the level of security, these threats may be from within or outside the country. In other words, government expenditure on defence has been on the increase in countries of the world (Dunne and Perlo-Freeman, 2003). This has been necessitated by increase in the level of threat to security.

When there is a threat to security, expenditure on military rises (Dunne and Perlo-Freeman, (2003). This gives rise to change in the composition of the budget. This budget reallocation has been found to regenerate more efficient government expenditure (Landau, 1996). That is higher government expenditure on military was found to have significant positive relationship with the level of industrial progress. Stroup and Heckelman's (2001) conducted similar study on a cross-section of Africa and Latin America countries, their findings also confirm the results obtained by Pieroni (2009). The study shows that an increase in military expenditure, caused by external threat, is associated to higher current government expenditure, which has a positive impact on industrialization. By implication threat to security causes government to change the composition of the budget with more revenue been allocated to the military expenditure and part of additional revenue collected to more efficient public functions which promote the level of economic activities (Pieroni, 2009) Essien, Tordee, Solomon and Felix (2015), in their study on security issues and its relationship with Foreign Direct Investment obtained results showing that national security remains one common and major factor hindering the growth of FDI in Nigeria within the period covered by the study. Every investor they said wants his investment to be secured and therefore will like to assess the situation in a country before investing in such an environment. The security challenges facing Nigeria include the threats to lives, properties and business establishments coming from regional or ethnic agitation for self-determination, crisis in the Niger-Delta, Terrorism in the North, rising cases of armed robberies and kidnapping, ritual killing, (Otto et al). This insecurity has continued to cripple business activities and frighten investors. Otto and Ukpere (2015), examined the impact of government security expenditure on development in Nigeria. Several empirical studies show that for many years the level of insecurity in the country has been on the high side and this has impacted very

much on production cost by the manufacturing industries. This In security did not only increase the unit cos production for many firms but also resulted in lowering the level of their output with a number of them relocating to other neighboring countries (Otto and Ukpere, 2015). These companies include Michelin and Dunlop, among several others. In their study, they proxy existence of security that facilitated industrial progress with government expenditure on security. They obtained data on government expenditure on security between 1980 and 2009. Analysis of the data showed a positive relationship between spending on security and national output in Nigeria, this implied a positive effect of the spending on industrial output in the country.

This crucial role of security in the industrial growth informed the so much money expended by government of countries of the world on security and defence. In 2012, the United States which is the biggest spender on security and defence budgeted a whopping sum of \$683 billion, to rank first among the powerful nations of the world, next to it is China with the sum of \$166 billion, Russia came third with the sum of \$90.7 billion. Among the top ten countries Italy came 10<sup>th</sup> with \$34 billion. This year Nigeria budget on defence and security was N755billion equivalent to about \$5billion.

III. DATA ANALYSIS

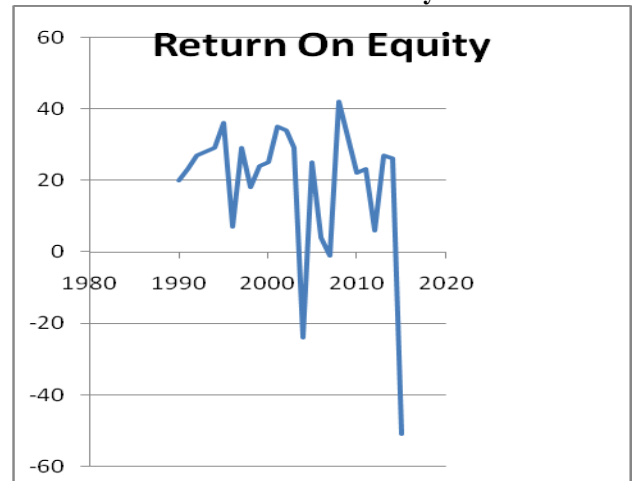
**Table 2 Manufacturing Firms’ Return On Equity and Government Expenditure Descriptive Statistics**

Years	Return On Equity %	Security % of total expenditure
1990	20	5
1991	23	6
1992	27	5
1993	28	4
1994	29	6
1995	36	3
1996	7	8
1997	29	6
1998	18	7
1999	24	6
2000	25	8
2001	35	11
2002	34	20
2003	29	11
2004	-24	12
2005	25	12
2006	4	11
2007	-1	12
2008	42	11
2009	32	10
2010	22	12
2011	23	13
2012	6	16
2013	27	11
2014	26	12
2015	-51	16

Source: Researcher’s Field Survey, 2018

Manufacturing Return On Equity (ROE) is a financial ratio that measures the profitability of a business in relation to the book value of shareholders’ equity; it is also known as net assets or assets less liabilities. It is used to determine the ability of a company’s management to use owners’ equity to generate income. When government spends money on infrastructures such as power, roads, security and human capital development, expectation of the business sector is that such expenditure of the government provide good environment for business prosperity. In other words it is expected to increase earnings, reduce cost and increase profit. This ultimately would increase Return On Equity of the business owners. In the Table, ROE of the manufacturing companies in 1990 was 20%, rose to 36% in 1995 and then fluctuated between 7% in 1996 and 26% in 2014. It fell to -24 in 2004 and went down to as low as -51% in 2015. Expenditure on security recorded better performance with 5% in 1990 and consistently rose to 16% in 2015.

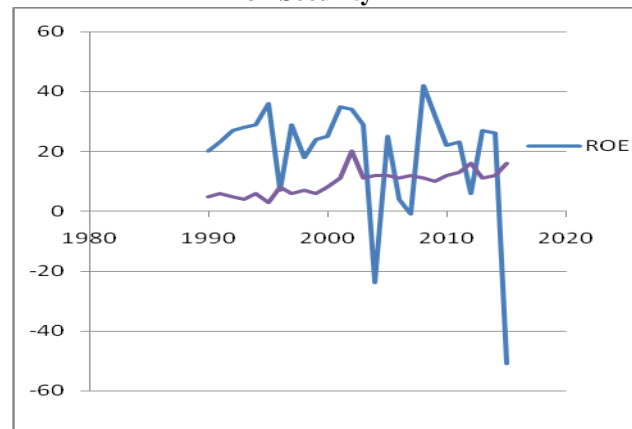
**Chart 1 Trend Analyses**



Source: Researcher’s field survey 2018

Chart:1 shows that ROE was 20% in 1990 but fell down to -24% in 2004, it however attained its peak in 2008 when it was 42% of the total assets, in 2009 it fell to about 32% and 22% in 2010. After the year 2010, there was a remarkable fall in this profitability index of the manufacturing companies. As at 2015 it was only about -51% of the total assets.

**Chart 2 Return On Equity and Government Spending on Security**



Source: Researcher’s field survey 2018



Chart: 2 shows that government expenditure on security in 1990 was N2.74 billion representing 5% of the total spending by the government. It was N3.76 billion or about 6% of total government spending in 1991. This percentage of government spending on security came down to 4% in 1993 and in 1995 it was only 3% but rose again to 11% in 2001. Return On Equity was 20% in 1990 it rose to 36% in 1995. In 1997 ROE fell to 29% even when the percentage of government spending on security increased to 6%. The peak of 20% government spending on security was achieved in 2002 with ROE rising to 34% in that year. In 2006 government spending on security rose to N207 billion

representing 11% of total spending of the government in that year, ROE however fell to only 4%, in the same manner ROE fell further to -1 in 2007 when percentage of government spending on security increased to 12% as can be seen from the Chart:2. The total expenditure on security in 2008 increased to N354 billion, this was only 11% of total government expenditure, ROE in the same year 2008 attained its peak of 42%. In 2009 government spending percentage dropped again to 10% and between 2010 and 2015, it fluctuated between 12% and 16%. Incidentally within this period also the ROE crashed to as low as -51 in 2015.

**Table 3 Regression Results**

Model 1	Correlation	Unstandardized Coefficients		Standardized Coefficient	t-statistics	Sig.
		B	Std. Error	Beta		
(Constant)		37.508	18.753		2.000	0.059
SECEXP	-0.294	-2.363	3.049	-0.317	-0.775	0.447

**a. Predictors: (Constant), Security**

**b. Dependent Variable: ROE**

Correlation of government expenditure to Security was -0.294 This result shows that as the government spending on security increased, ROE declines. In the co-efficient table, the value of constant is 37.51 representing the value of Manufacturing ROE when Government Expenditure is zero. Coefficient of the independent variable, Security was

-2.363. The t-statistics associated with this coefficient as shown in the results are; 2.00 for constant with 0.059 significant level and Security with t-statistics of -0.775 and 0.447 significant level. These results show that government spending on security did not have significant relationship with the Return On Equity. The result also show that the government spending on security and Return On Equity were inversely related. The results are in agreement with the result obtained by Essien, Tordee, Solomon and Felix (2015). Results of their study show that national security remains one common and major factor hindering the growth of FDI in manufacturing companies in Nigeria. The security challenges facing Nigeria according to them include the threats to lives, properties and business establishments coming from regional or ethnic agitation for self-determination, crisis in the Niger-Delta, Terrorism in the North, rising cases of armed robberies and kidnapping, ritual killing, (Otto and Ukpere, 2015). This insecurity has continued to cripple business activities and frighten investors. This insecurity did not only increase the unit cost of production for many firms but also resulted in lowering the level of their output with a number of them relocating to other neighboring countries (Otto and Ukpere, 2015). This insecurity makes investment unattractive to potential investors, increase cost of doing business either through direct loss of goods and properties or the cost of taking precautions against business risks and uncertainties (Essien, Tordee, Solomon and Felix, 2015).

## I. CONCLUSION

Results of the study shows that government spending on security did not impact positively on investors Return On Assets. The implication of this is that the level of insecurity in the country will continue to discourage investment in manufacturing sector of the nation's economy.

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