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Industrial Sector Growth And Public Infrastructure Capital In Nigeria

Akatugba D. Oghenebrume
Department of Economics, Niger Delta University, Wilberforce Island, Nigeria
aka_brume@yahoo.com

Francis Agboola Oluleye
Department of Economics and Development Studies, Federal University Otuoke, Nigeria, francisoluleye@yahoo.com

Abstract
Public infrastructure is essential for long-run industrial and economic growth. Unfortunately, public infrastructure in most developing countries is typically in poor condition. Poor infrastructure reduces the profitability of modern manufacturing industrial sector and may therefore inhibit industrialization. Road systems are neglected, public transport and telecommunication systems are unreliable, power supply frequently breaks down, hence the need to examine the link between public infrastructure capital and industrial sector growth and through that assess the impact of public infrastructure capital on industrial sector growth in Nigeria. The Ordinary Least Squares (OLS) and the Generalized Method of Moments (GMM) methods were used for the analysis. The empirical results indicate that on one hand, public capital infrastructure captured by infrastructure development index, human capital development measured by human development index and inflation rate are negatively related to industrial sector growth in both the OLS and GMM frameworks. Broad money supply and exchange rate on the other hand, were found to have a positive relationship with industrial sector growth in both the OLS and GMM frameworks. It is thus concluded that for Nigeria, infrastructure exerts a negative impact on industrial sector growth. This outcome suggests that the level of access to infrastructure or its quality did not affect industrial growth. It is therefore recommended that policy direction in Nigeria should focus on reversing pervasive infrastructure deficit, in ways that enable economic growth and development.

Keywords: Manufacturing Growth, Public infrastructure, Nigeria.

Introduction
The insatiable desire to industrialize continues to permeate both developed and developing countries’ policy space as industrial development remains a driver of structural change and long-run growth for two reasons as posited by Dijkstra (2000) and Zattler (1996). First,
industries (especially manufacturing) have higher productivity growth and technological development than other sectors of the economy, and also technological spill over’s. Second, countries that neglect industry depend on primary exports which are subject to long-run deterioration of the terms of trade. However, the extent of industrialisation depends on the prevailing macroeconomic environment, the dynamic and complementary nature of economic policies targeted at shifting resources from low productivity to high-productivity sectors. One of the surest ways to achieve the afore-stated goal is through massive investment in public infrastructure capital, as leverage to competitiveness of the industrial sector.

The literature on the impact of public infrastructure capital on growth reports controversial results, as policy makers in Nigeria tend to regard public infrastructure as the key to long-run industrial and economic growth. But unfortunately, public infrastructure in Nigeria is typically in a fairly poor condition. Poor infrastructure reduces the profitability of modern sector manufacturing and may therefore inhibit industrialization. Road systems are neglected, public transport and telecommunication systems are unreliable, power supply frequently breaks down, etc.

Most studies analysing the impact of public infrastructure capital on growth have applied neoclassical production functions (Aschauer, 1989; Garcia-Mila’ & McGuire, 1992; Munnell, 1992; among others). Their results generally point to the positive effects of public capital, but the diversity of results is perhaps too great for any definitive conclusions to be drawn and many inconsistencies have been reported. In this respect, the production function itself has been considered inaccurate due to the restrictions it places on technology and a firm’s behaviour, and its failure to take into account private input prices which would affect the intensity of their use. In order to overcome some of these weaknesses, the duality theory has been suggested as an alternative (Berndt & Hansson, 1992, Nadiri & Mamuneas, 1994, Morrison & Schwartz 1996, Conrad & Seitz, 1992, Seitz & Licht, 1995 and Sturm, 1997). The duality theory, based on the estimation of cost and profit functions, allows the substitutability relationship between private and public factors to be examined as well as the marginal effect of infrastructure on a firm’s cost structure. As stated in Moreno, Lo´pez-Bazo and Art´is (2002) this approach is of particular relevance to the study of the impact of infrastructure investments.

Moreno, et al (2002) observed that an improvement in the endowment of public capital can have two effects: a short-run effect, due to cost reductions in variable inputs as a consequence of the new public capital stock, where the economy is constrained by its current stock of private capital; and a long-run effect, by which a higher infrastructure endowment changes a firm’s desired level of private capital. Thus, the short-run effect of increasing the public capital endowment may be either reinforced or counterbalanced according to the substitutability relationship between public and private capital, in other words, in accordance with the reallocation effect between the two types of capital. This occurs because a firm wishes either to substitute some of its physical capital stock or to increase its intensity with additional free public capital. This might have an influence on the spatial distribution of activity, as pointed out by Martin and Rogers (1995), and might also lead to a sectoral restructuring of the economy, as Holtz-Eakin and Lovely (1996) suggested.
Furthermore, existing empirical literature on the impact of public infrastructure capital on growth has mainly focused on cross-country time series evidence and a production function framework to estimate the average relation between public infrastructure capital and growth. However, a majority of them focus on one element of infrastructure (e.g., telephone, roads) in disregard of the multidimensional nature of public infrastructure and commonly find that infrastructure stocks are positively related to growth. In addition, empirical tests of the effects of infrastructure on growth use various econometric specifications that depend on the underlying theoretical argument(s) with associated econometric problems. Econometric problems such as simultaneity bias, omitted variables and non-stationarity have not been addressed to varying degrees in subsequent research as studies on Nigeria’s infrastructure-growth nexus are few and scanty. In addition, it is evident from existing empirical literatures that the argument on the nexus between infrastructure and growth is inconclusive and requires a robust approach that would reveal a new insight into the enquiry of infrastructure and growth. It is against this background, that this study takes a different approach by examining the link between public infrastructure capital and industrial sector growth using alternative measures of infrastructure that combine several of its dimensions. The study attempts to fill these gaps.

Following the introduction, the rest of the paper is structured as follows. Section 2 discusses conceptual issues in infrastructure analysis and the many facets of infrastructure. Section 3 presents a brief review of theoretical and empirical literatures on infrastructure and growth. Section 4 explains the model and data, while section 5 presents the estimation technique for the study. Section 6 discusses the empirical results while section 7 provides the conclusion and policy implication.

Conceptual Issues in Infrastructure Analysis

The literature defines infrastructure in two basic ways. The broader definition distinguishes a conceptually sensible category of capital stock used by large capital-intensive natural monopolies that in individual countries may or may not be privately owned. The other approach is an expedient one used in research. It identifies infrastructure with the tangible stock owned by the public sector. The literature also notes that, as with any public good, some benefits of infrastructure capital such as improved security, time saving; improved health and a cleaner environment are magnitudes that are difficult to measure and thus are not included in official measures of national output. Hence, it is difficult to relate infrastructure to all of its goals.

Facets of Infrastructure and Conceptual Issues in Infrastructure Analysis

Broadly, infrastructure serves two major purposes. It provides services that are part of the consumption bundle of residents and is an input into private-sector production, augmenting capital and labour. With regard to its role in augmenting output and productivity, there is conceptual agreement but researchers disagree about magnitudes involved.
Infrastructure includes highways and roads, mass-transit and airport facilities, education buildings, electricity, gas and water supply facilities and distribution systems, waste treatment facilities, correctional institutions, police, fire service and judiciary. Some infrastructure types do not possess the characteristics of public goods—non-rivalry and non-exclusionary—and thus are private and club goods. Power and water are extant examples of private and club goods.

Roads constitute a mixed case of private and club goods. Core infrastructure comprises highways, water, electricity and telecommunications. Public services provided by core infrastructure components may enter directly (intermediate inputs) into private-sector production or even into aggregate production function. These components are expected to contribute most directly to private-sector output.

However, some components of core infrastructure are part of social infrastructure (which counts as a final good). For instance, individuals living in squatter and slums that lack social infrastructure such as water and sewerage systems and electricity can be classified as poor cohorts regardless of movements in their indicators of income and food consumption. Therefore, as a basic consumption good, infrastructure is also a central issue in poverty alleviation strategies. Additionally, infrastructure projects generate large-scale expenditure for public works and thus increases aggregate demand. Infrastructure investments are as well sensitive to income shocks.

Boom times can lead to indiscriminate public spending as can redistributive motives. Conversely, countries that face severe drop in income tend to lean on public capital expenditure programmes since the benefits of infrastructure programmes are spread over a longer term, although the costs or the effects of immediate cut backs occur with a lag. Thus cuts in spending on infrastructure are particularly expeditious for politicians attempting to manoeuvre tight budgetary corners. Given the large scale involvement of governments in infrastructure investment, it is suggested that the patterns of growth in infrastructure stocks may be explained better by political economy rather than by economic efficiency (Canning, 1998 as cited in Ayogu, 2007) even though much of the research in this area have looked to economic efficiency.

Theoretical Literature

The connection between infrastructure and growth is a major focus of the development literature. Rosenstein-Rodan (1943) analysed the demand side of capital formation and particularly identified one category of physical capital for special attention: social over head capital. Social overhead capital is not only characterized by non-convexities which he called ‘generalized external economies’, but also establishes vital prerequisites for private-sector investment. This idea subsequently blossomed into the public capital hypothesis—the proposition that public capital stock has significant positive effects on private-sector output, productivity and capital formation.

Much later, Ratner (1983) and Aschauer (1989) linked infrastructure to productivity-slow down in the USA and attempted econometrically to establish empirical evidence of the connection postulated by Rosenstein-Rodan. In another study, Aschauer (1993) observed further that infrastructure provision through public investment should be well taken as factor of production
just as labour and private capital in the private sector production process. In order to raise productivity growth, countries must boost the existing stock of capital accumulation and at the same time investment abundantly on research and development. Most of the empirical studies in this area have focused on the USA and other developed countries. There were empirical regularities in the findings of these studies that the services provided through public capital are more important in the process of raising production efficiency (Lynde & Richmond, 1993; Munnell, 1990 and Garcia-Mila & Guire, 1992).

It is instructive to state here that theoretical growth thinking within the neoclassical production functions have been revised to include several variables, notably government spending (infrastructure), human capital, protection of property rights and market distortions (see Barro, 1996). The exogenous growth models have been criticized on several grounds including failure to explain technological progress and cross-country income differences. These deficiencies have motivated the development, and burgeoning empirical applications, of endogenous growth models. Barro (1990), one of the earliest contributors to theoretic endogenous growth modelling, argues that the government’s contribution to current production is driven by its flow of productive (infrastructure) expenditure, which can prevent diminishing private-sector capital returns, raise the marginal product of private-sector capital, and these in turn raise the rate of output growth. This motivates the present study’s focus on public capital infrastructure and industrial sector growth.

**Empirical Issues**

Martina and Rogers (1995) examined the impact of public infrastructure on industrial location when increasing returns are present. Major findings: Trade integration implies that firms tend to locate in countries with better domestic infrastructure. High levels of international infrastructure and strong returns to scale magnify industrial relocation due to differentials in domestic infrastructure or capital endowments. Regional policies which finance domestic infrastructure in a poor country lead firms to relocate in this country. Regional policies which finance international infrastructure in a poor country will lead firms to leave this country. We also analyze the incentives for countries to inhibit industrial relocation.

Ret, Niels, Daniel and Youdi (1994) examined the impact of infrastructure (roads, telecommunications, electricity) on industrial development in Central Java. The spatial distribution of manufacturing industry is analysed by means of both secondary data at the knbupatm level and primary data on 274 firms in various pa & of Central Java. In addition to demand side factors, infrastructure does indeed play an important role, but local government bureaucratic procedures for obtaining land and permits are also important.

Moreno, López-Bazo and Art’s (2002) presented a theoretical framework for determining the short- and long-run effects of public infrastructure on the performance of manufacturing industries in the Spanish regions. The study derived long-run elasticities by taking into account the adjustment of quasi-fixed inputs to their optimum levels. By considering the impact of infrastructure on private investment decisions, the study found that infrastructure exerts an
indirect source of influence in the long-run through their effect on private capital, apart from the direct effect on costs in the short-run.

Nedozi, Obasanmi and Ighata (2014) analyzed infrastructure development and economic growth in Nigeria using simultaneous analysis. Two models were specified and analyzed using the OLS method. Findings from the study show that infrastructure constitute a critical part of growth process in Nigeria.

Babatunde, Salius and Oseni (2012) attempted to investigate the impact of infrastructure on economic growth in Nigeria using a multivariate model of simultaneous equation during 1970 to 2010. The study utilized three-stage least squares technique to capture the transmission channels through which infrastructure impacted on growth. The study submitted that infrastructure investment directly impacted on the overall output and indirectly stimulates growth of other sectors.

Olorunfemi (2008) examined the direction and the strength of the relationship between infrastructural services and manufacturing output in Nigeria using time series data from 1981 to 2005. The study used Vector Autoregressive (VAR) model and Granger causality. Results showed that the present transport and electricity service in Nigeria did not cause growth to occur in the manufacturing sector. It was also revealed in the study that telecommunication and education had contributed to the growth in the manufacturing sector. The paper recommended that a centrally coordinated, internally consistent and a holistic approach that would encompass uniform standard, a maintenance culture and a linkage between the various sectors of the economy toward the development of infrastructure services is important to the development of manufacturing sector.

Herranz-Loncán (2007) investigated the impact of infrastructure investment on Spanish economic growth during the period 1850 to 1935 using new infrastructure data and VAR technique. The study showed a strong positive relationship between infrastructure and growth but infrastructure returns were not significant in the estimation.

Seitz and Licht (2007) examined the impact of public infrastructure capital on manufacturing production cost in the 11 (West) German states. The study adopted a simple theoretical model of a cost-minimizing firm in which the stock of public capital is included as a proxy for public services provided to firms as a fixed unpaid factor of production. Duality theory was used to recover the productivity effects of public infrastructures by calculating the cost-saving effects that are associated with public services. Using a translog cost function, the study presented a panel estimates for the manufacturing industry in the 11 states of (West) Germany with labour, buildings and machinery as private factors of production. The results strongly indicated significant cost reducing effects of public infrastructure services and suggest that public capital formation encourages private investment.

Kodongo and Ojah (2016) in a study titled does infrastructure really explain economic growth in Sub-Saharan Africa used System GMM to estimate a model of economic growth augmented by an infrastructure variable, for a panel of 45 Sub-Saharan African countries, over the period
They found that it is the spending on infrastructure and increments in the access to infrastructure that influence economic growth and development in Sub-Saharan Africa. Interestingly, these significant associations, especially those of infrastructure spending, are more important for lesser developed economies of the region than for the relatively more developed economies, which uncommonly have better than near-zero access to infrastructure. In addition to these robust direct links between the target variables, the study further found that infrastructure access, and quality, also relate to economic growth indirectly via export diversification (trade competitiveness), and cross-border capital flows and trade competitiveness, respectively. They recommended reversing Africa’s pervasive infrastructure deficit, in ways that enable economic growth and development, must be carefully nuanced.

Ogunlana, Yaqub and Alhassan (2015) analyzed the effect of public and private investment on infrastructures and its impact on economic growth in Nigeria during the period 1970 to 2014 using the Engel-Granger (1987) cointegration and Error correction mechanism (ECM). Empirical results showed that infrastructure components exert positive contribution on economic growth in Nigeria. Domestic investment on infrastructure and total labour force correlated with economic growth negatively. The study recommended that government need to design an economic policy that would raise the quality of infrastructures and at the same time makes provisions for human capital development for sustained growth.

Ehizuelen (2016) examined the dynamic linkages between infrastructure and economic growth in Nigeria. Economic development in Nigeria can be facilitated and accelerated by the presence of infrastructure. The study employed Ordinary Least Squares. Results showed that infrastructure is an integral part of Nigeria economic growth. Undermining it (infrastructure) is undermining the growth and development of Nigerian economy. The study has showed that infrastructure is an intermediate goods and service for the real sector and a finished goods and service for consumers. So, if the real sector which is the engine of growth is to propel Nigerian growth and development, infrastructure should be given qualitative and adequate attention.

**Methodology**

**Sources of Data and Measurement of variables**

The paper used times series data covering the period of 2000–2016, obtained from World Bank’s African Development Indicators, Central Bank of Nigeria (CBN) Statistical Bulletin various issues and National Bureau of Statistics. The choice of this period is predicated on the fact that the study core measure of infrastructure development, that is; the Africa Infrastructure Development Index (AIDI) for Nigeria first edition was published in April 2011. This was updated and expanded to cover the period 2000–2016 (AfDB, 2013b). Seven variables were used in the study, namely industrial sector growth, one proxy of public capital infrastructure, human development index, broad money supply, exchange rate, and inflation rate.

Industrial sector growth was measured as industry production index. This is an economic report that measures changes in output for the industrial sector of the economy.
Public capital infrastructure was measured by Africa Infrastructure Development Index (AIDI) for Nigeria. The first edition was published in April 2011. This was updated and expanded to cover the period 2000–2016 (see AfDB, 2013b).

Human capital was measured by human development index as reported in the United Nations Development Program (UNDP). UNDP’s human development index is composed of life expectancy, national income, and average and expected years of schooling.

Broad money supply was used measure the depth of financial development. This is considered important for growth especially in low-income countries like Nigeria. Exchange rate was used to measure the level of economic competitiveness; while inflation measure price stability.

**Model Specification**

The main objective of this study is to examine the impact of public infrastructure capital on industrial sector growth in Nigeria. For this purpose the model adapted for this study is predicated on the endogenous growth framework of Barro (1990) and a modified model of Kodongo and Ojah (2016). The preferred model is represented as equation 1 below:

$$
\text{InIPI} = \beta_0 + \beta_1\text{InPKI} + \beta_2\text{InHCD} + \beta_3\text{InBMS} + \beta_4\text{InEXR} + \beta_5\text{InINFR} + \mu
$$

Where,

IPI represents industrial sector growth, PKI public capital infrastructure, while HCD, BMS, EXR, INFR and $\mu$ represent human development index, broad money supply, exchange rate, and inflation rate and the stochastic error term respectively. The ‘a’priori’ expectations are determined by the principles of economic theory and refer to the expected relationship between the explained variable and the explanatory variable(s). It is expected that $\beta_1, \beta_2, \beta_3 > 0 \& \beta_4, \beta_5 < 0$.

For the necessity of uniformed scale of measurement and consistent interpretation of results, all variables were transformed to natural logarithms, which allow us to interpret the coefficients as elasticities.

**Justification of the Variables in the Model**

To capture public capital infrastructure, the study utilized Africa Infrastructure Development Index (AIDI) for Nigeria. This measure is adopted in the present study for many reasons. For instance, measuring infrastructure as a single variable, either in physical or monetary unit fails to capture the multi-dimensional nature and heterogeneity of infrastructure across time periods and countries, and does not properly distinguish between quality/productivity and bulk of infrastructure (Calderón & Servén, 2010). Additionally, simultaneity can be a serious econometric problem in infrastructure-growth studies because countries with faster growing output may spend more on infrastructure while infrastructure provision may also positively mediate the relationship between aggregate input and output, and hence foster output growth.
These flagged issues inform our variable measurement and choice of econometric procedures. That is, we tried to respond to the criticism about the use of single variable measures by applying an index of various infrastructure measures. The African Infrastructure Development Index (AIDI), developed by AfDB (2013b), is a weighted average of nine indicators of infrastructure covering four key components: electricity, transport, information and communications technology (ICT), and water and sanitation. Although the index emphasizes measures of infrastructure “bulk”, it also captures some aspects of infrastructure “quality”. For instance, bulk of transport infrastructure is captured through total road network in km (per square km of exploitable land area) while transport infrastructure quality is addressed through total paved roads (km per10,000 inhabitants).

Human capital is important because it enables a country’s pool of labour resources to acquire hard skills (e.g., ability to operate machines) and soft skills (e.g., for teamwork and effective communication) which can potentially improve the productivity of capital (Kodongo & Ojah, 2016).

Another factor that could positively affect the industrial sector growth in Nigeria is the steady flow of money supply. Broad money supply as one of the proxies of financial development is considered important for economic growth especially in low-income countries (e.g., Hassan, Sanchez., & Yuc, 2011; Menyah, Nazlioglu & Wolde-Rufael, 2014).

Exchange rates (local currency units per unit of the USA dollar) is expect to have a positive and significant effect on industrial sector growth since it has the potential to alter the value of prices in the economy without real changes in the production of goods and services within the economy (Arthur, Aigheyisi & Oaikhenan, 2015). It is expected that depreciation would reduce import as a result of the higher relative price of imported goods. Depreciation would thus increase net export and domestic income (output) would increase with depreciation through the goods market.

Inflation as a measure of price stability is expected to adversely affect consumer demand and adversely affect growth (Kodongo & Ojah, 2016).

**Estimation Technique and Procedure**

First, the variables employed in the study were investigated for their stochastic properties, using two traditional unit roots tests. The traditional tests deployed are the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP). The two tests were used to test for consistency and where conflicts exist, to decide on the most appropriate option (see Hamilton, 1994). The unit root tests are followed by Ordinary Least Square (OLS) and the Generalized Method of Moments (GMM). The instruments are the one period lag of the variables. The GMM framework help in dealing with validity of inference, serial correlation effects and the problem associated with endogeneity (see Kodongo & Ojah, 2016).
Empirical Results

Descriptive Analysis

In order to have glimpse of the data used in the study, a first pass at the data in form of descriptive statistics was carried out. This gives us a good idea of the patterns in the data and the nature of the estimations and diagnostics to be carried out. The summary statistics is presented below.

Table 1: Summary Statistics Results

<table>
<thead>
<tr>
<th></th>
<th>IPI</th>
<th>PKI</th>
<th>HCD</th>
<th>BMS</th>
<th>EXR</th>
<th>INFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>124.0919</td>
<td>13.75563</td>
<td>0.477275</td>
<td>17.11142</td>
<td>139.7287</td>
<td>17.57688</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>15.90176</td>
<td>4.230814</td>
<td>0.018976</td>
<td>8.083803</td>
<td>22.99285</td>
<td>6.030155</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.468010</td>
<td>0.131690</td>
<td>-0.247241</td>
<td>1.824208</td>
<td>0.472921</td>
<td>0.160833</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>1.906969</td>
<td>1.430245</td>
<td>1.892080</td>
<td>4.818086</td>
<td>2.929342</td>
<td>2.313512</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>1.380565</td>
<td>1.689001</td>
<td>0.981333</td>
<td>11.07758</td>
<td>0.599739</td>
<td>0.383156</td>
</tr>
<tr>
<td>Probability</td>
<td>0.501434</td>
<td>0.429772</td>
<td>0.612218</td>
<td>0.003931</td>
<td>0.740915</td>
<td>0.825655</td>
</tr>
<tr>
<td>Observations</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

As observed from the table, exchange rate has the highest mean value of 139.7287, while human capital development has the lowest mean value of 0.477275 whereas the mean values for industrial production (IPI), public capital infrastructure (PKI), broad money supply (BMS) and inflation rate (INFR) are 124.0919, 13.75563, 17.11142 and 17.57688 respectively. The analysis was also fortified by the value of the skewness and kurtosis of all the variables involved in the model. The skewness is a measure of dispersion away from the mean value while the kurtosis is a measure of the symmetry of the histogram. The bench mark for symmetrical distribution i.e. for the skewness is how close the variable is to zero. From this study, it can be observed that all the variables are positively skewed except human capital development that is negatively skewed. Variables with value of kurtosis less than three are called platykurtic (fat or short-tailed) and all variables except BMS qualified for this during the study period. On the other hand, variables whose kurtosis value is greater than three are called leptokurtic (slim or long tailed) and BMS variable qualified for this during the study period. Jarque-Bera test shows that the residuals are all normally distributed but with the exception of BMS variable since the probability values do not exceed 5%. In summary, the descriptive statistics revealed that five variables are normally distributed. This is so because the probability values of the variables do exceed 5%.

Time Series Properties of the Variables

Econometric studies have shown that most financial and macro-economic time series variables are non-stationary and using non-stationary variables leads to spurious regression (Engel & Granger, 1987). Thus, the variables were investigated for their stochastic properties, using two traditional unit roots tests. The traditional tests deployed are the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP). The two tests were used to test for consistency and where
conflicts exist, to decide on the most appropriate option (see Hamilton, 1994). The results of unit root tests are presented in Table 2 below:

Table 2: Unit Root Test Results (Trend and Intercept)

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF</th>
<th>Critical Values</th>
<th>Order of Integration</th>
<th>PP</th>
<th>Critical Values</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPI</td>
<td>-7.171</td>
<td>-5.125*</td>
<td>I(1)</td>
<td>-4.982</td>
<td>-4.800*</td>
<td>I(1)</td>
</tr>
<tr>
<td>PKI</td>
<td>-3.608</td>
<td>-3.363**</td>
<td>I(0)</td>
<td>-2.833</td>
<td>-2.690*</td>
<td>I(1)</td>
</tr>
<tr>
<td>HCD</td>
<td>-4.016</td>
<td>-3.791**</td>
<td>I(1)</td>
<td>-5.756</td>
<td>-4.800*</td>
<td>I(1)</td>
</tr>
<tr>
<td>BMS</td>
<td>-3.145</td>
<td>-3.098**</td>
<td>I(1)</td>
<td>-3.135</td>
<td>-2.690*</td>
<td>I(1)</td>
</tr>
<tr>
<td>EXR</td>
<td>-2.587</td>
<td>-1.966**</td>
<td>I(0)</td>
<td>-4.728</td>
<td>-3.759*</td>
<td>I(1)</td>
</tr>
<tr>
<td>INFR</td>
<td>-4.629</td>
<td>-3.791**</td>
<td>I(1)</td>
<td>-9.007</td>
<td>-4.800*</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

Note: * Indicates stationary at the 1% level, and ** Indicates stationary at 5% level.

Source: Researchers’ Computations Using Eviews 9.5.

From Table 2, the traditional tests of the ADF and PP indicates that all the variables tend to be stationary in first difference except PKI and EXR which tends to be stationary at level in the ADF test. Next, the study presents the estimated regression results from the OLS and GMM.

Table 4: Regression Results

<table>
<thead>
<tr>
<th>Dependent Variable: ASI</th>
<th>OLS</th>
<th>GMM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>t-Statistic</td>
</tr>
<tr>
<td>C</td>
<td>2.438**</td>
<td>2.248</td>
</tr>
<tr>
<td>LOG(PKI)</td>
<td>-0.535**</td>
<td>-2.704</td>
</tr>
<tr>
<td>LOG(HCD)</td>
<td>-1.194***</td>
<td>-1.772</td>
</tr>
<tr>
<td>LOG(BMS)</td>
<td>0.068</td>
<td>1.132</td>
</tr>
<tr>
<td>LOG(EXR)</td>
<td>0.571**</td>
<td>2.757</td>
</tr>
<tr>
<td>LOG(INFR)</td>
<td>-0.047</td>
<td>-0.452</td>
</tr>
<tr>
<td>R²</td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>D.W</td>
<td>1.7</td>
<td></td>
</tr>
</tbody>
</table>

Note: * and *** denote significant at the 1, 5 and 10 percent level respectively.

Source: Researchers’ Computations (2017).

Results, reported in Table 4, show a strong negative relationship between the target variable – infrastructure indexes – and industrial sector growth in both the OLS and GMM frameworks. Consequently, a rise in infrastructure exerts a negative impact on industrial sector growth. The coefficient is statistically significant both the OLS and GMM frameworks. This outcome suggests that the level of access to infrastructure or its quality did not affect industrial growth.

The coefficient of human capital measured by human development index is indirectly related industrial sector growth in both the OLS and GMM frameworks and statistically significant at
the 10% levels. This outcome is not in conformity with theoretical prediction and the finding of Kodongo and Ojah (2016).

Broad money supply coefficient is positively related to industrial sector output growth in both the OLS and GMM frameworks. Consequently, a rise in broad money supply, captured as a percentage of GDP exerts a positive impact on industrial sector growth. The coefficient is statistically significant in the FMOLS framework. This finding is consistent with apriori expectation and study of Hassan et al., 2011 and Menyah et al., 2014.

The coefficient exchange rate is directly related to industrial sector growth in both the OLS and GMM frameworks and statistically significant at 1% and 5% levels respectively. This outcome is in conformity with theoretical prediction, owing to positive adjustment of output in the long-run, and the enhancement in the export earnings resulting from currency depreciation.

The coefficient inflation rate is negatively related to industrial sector growth in both the OLS and GMM frameworks. Thus, price instability is inimical to the performance of the industrial sector as it discourages accessibility to credit from financial institutions. Specifically, 1% increase in inflation rate is associated with -0.047 and -0.073 percent decreases industrial sector growth in both frameworks respectively. This finding is consistent with apriori expectation as inflation is expected to adversely affect consumer demand and adversely affect growth (see Kodongo & Ojah, 2016).

The goodness of fit of the OLS estimate is adequate. About 89% in the variation in industrial sector growth is due to changes in the regressors; while in the GMM estimates, the explanatory variables employed in the model account for about 88% changes in industrial sector growth.

Further empirical evidence revealed that at 1% level of significance the variables collectively influence the variation of industrial sector growth as shown by the F-statistic (15.91), and F-Prob (0.00) in the OLS framework. This is a sign that the model is a non-spurious regression. Finally, Durbin – Watson Statistic is given as 1.7 and 1.6 in both frameworks (D-W = 2) suggests that autocorrelation is unlikely to be a problem. Consequently, the estimated model is confidently relied upon for making inferences and for prediction purpose as utilized in this study.

**Conclusion and Policy Implications**

The paper investigates the link between public infrastructure capital and industrial sector growth and through that assesses the impact of public infrastructure capital on industrial sector growth in Nigeria. The Ordinary Least Square (OLS) and the Generalized Method of Moments (GMM) methods were used for the analysis. It is noteworthy that there is a significant difference between the OLS results and those of the GMM.

The empirical results indicate that on one hand, public capital infrastructure captured by infrastructure development index, human capital measured by human development index and inflation rate are negatively related industrial sector growth in both the OLS and GMM frameworks. Broad money supply and exchange rate on the other hand, were found to have a
positive relationship with industrial sector growth in both the OLS and GMM frameworks. It is thus concluded that for Nigeria, infrastructure exerts a negative impact on industrial sector growth. This outcome suggests that the level of access to infrastructure or its quality did not affect industrial growth. It is therefore recommended that policy direction in Nigeria should focus on reversing pervasive infrastructure deficit, in ways that enable economic growth and development.

References


Banks Business Models, Risk Management Systems And Small And Medium Enterprises Financing Proclivity In Zimbabwe

Watson Munyanyi
Great Zimbabwe University wmunyanyi@hotmail.com

Tafirei Mashamba
Great Zimbabwe University tmashamba@gzu.ac.zw

Abstract
The need to create sustainable ways of generating profits has put substantial pressure on banks to reinvent their business models in the post-global financial crisis era. The objectives of bank managers, which include profit maximization, essentially influence the bank’s lending behavior, scale, choice, and timing. Among the constraints that small and medium businesses face is limited access to financing. An increase in bank involvement in the financing of small and medium enterprises is critical for the survival of the sector. Given the widespread heterogeneity in banks business models globally, this study, grounded on the Portfolio Management Theory, investigates how diversity in business models affects bank risk management systems and their proclivity to small and medium enterprises lending. Structural equation modeling, a confirmatory, multivariate technique, was employed to analyze the causal relationships between these variables, starting with a pictorial representation of the variables. The strong relationship between the variables under study suggests that business models and risk management systems are key components in the decision to lend to small and medium enterprises. As such there is need for banks to reconsider their business operations mechanisms in order to accommodate the small and medium enterprises sector.

Keywords: Business Model, Risk Management, SME Financing, Financial Performance, Value Creation

1. INTRODUCTION
The need to create sustainable ways of generating profits has put substantial pressure on banks to reinvent their business models in the post-global financial crisis environment (Kok, Móré & Petrescu, 2016). In addition, globalisation and changes in the regulatory and monetary policies also contribute to the need to shift a banks’ business models (Gehrig, 2015). In recent years, banks business models transformed and became more heterogeneous than ever before and this is predominantly apparent in global banks (Hryckiewicz & Kozłowski, 2017). For example,
Asian banks underwent a remarkable shift in competitive conditions and strategy, because of both the Asian financial crisis of 1998 and the global financial crisis (Olivero, Li, & Jeon, 2011). Over and above bank-specific changes that occurred, financial deregulation and innovation also led to transformations of the credit markets and the bank lending channels (Perera, Ralston, & Wickramanayake, 2014). The asset-liability structures of international banks show investment banking models that comprise primarily of trading assets and market funding, while other banks have preferred to concentrate on different strategies (Hryckiewicz & Kozłowski, 2017). Because of the general increase in the level of liquidity risk, banks have also grown to favour ‘safe loans’, thereby alienating SMEs, who already suffer from under diversified sources of finance (Holton, Lawless & McCann, 2011; Ivashina and Scharfstein, 2010). Most banking institutions highlight factors such as unavailability of collateral, failure to prove creditworthiness, insignificant cash flows, lack of sufficient credit history and poor and undeveloped bank-borrower relationships as factors that make it difficult for them to advance financing to SMEs (Ardic, Mulenko & Saltane, 2012; Osano & Languitone, 2016). In addition, management of risk is also an important factor in lending decision, since risks that affect banks may affect the economic performance and professional reputation of the firm as well as environmental, safety, and societal outcomes (Rebelo, Silva & Santos, 2017).

A business model specifies how a firm will generate revenue from the provision of products and services hence, it defines how a business will create and capture value (Boons and Lüdeke-Freund, 2013). It defines what benefit a business will bring to customers; how it will deliver the benefit, and how it will create value (Teece, 2010; Chesbrough & Rosenbloom, 2002). While the notion of business model arose from competition-oriented business environments, it is imperative that all businesses to incorporate business models fundamental components in their strategic planning (Ranerup, Henriksen and Hedman, 2016). Several empirical studies have been carried out focusing on the relationship between business model and factors such as capital (Wheelock & Wilson, 2000), operational efficiency (Kwan & Eisenbeis, 1997), sources of finance (Demirgüc-Kunt & Huizinga, 2010), securitisation and financial markets (Mian & Sufi, 2009), corporate governance (Laeven & Levine, 2009) and diversification (Stiroh, 2010). Given the widespread heterogeneity in banks’ business models globally, this study poses the question, how does diversity in business models affects bank risk management systems and SMEs lending proclivity. Existing literature has tended to define banks business models basing either on a relative examination of balance sheets (Blundell-Wignall & Atkinson, 2010) or on group analysis on single assets and liability transactions (Ayadi & de Groen, 2014). However, such methods fail to incorporate the influence of non-financial information in the crafting of banks business models. In addition, the methods do not capture the socioeconomic and other aspects like customer relations, value creation and environmental factors, that are part of a bank’s business model. While there is almost ample research seeking to clarify the business models construct, their significance in relation to strategic decision making and the creation of value remains unresolved (Casadesus-Masanell and Ricart, 2010; Teece, 2010). Research is still limited regarding the influence of business models and risk management systems on the lending decisions of banks towards SMEs.

2. LITERATURE

2.1. Theoretical Foundation

This study is grounded on the Modern Portfolio Theory (MPT) developed by Harry Markowitz in 1952. The theory argues that there is an unlimited number of “efficient” portfolios that occur along the efficient-frontier curve which consists of those portfolios that either maximise return
or minimise risk (Todoni, 2015). The MPT therefore advocates that firms minimize portfolio risk on a specific expected return by properly deciding on the essentials of the portfolio (Markowitz, 1952). It is against this advocacy to the portfolio theory that this research seeks to investigate the influence of business models on lending decisions while considering the moderating role of risk management systems.

2.2. Business Models

The notion of business models has gained growing interest among management practitioners and academics since the mid-1990s (Huijben and Verbong, 2013). Understanding how to develop a suitable business model has become integral for a firm to remain competitive and operate profitably (Porter, 1996). Literature on business models has focused predominantly on the way in which businesses organize themselves to create and compete from their activities (Bolton & Hannon, 2016). Therefore, a business model, which represents how a business creates, delivers, and captures value, is the logic behind the creation of both public value for society and revenue for the business (Janssen and Zuiderwijk, 2014). There are generally nine business model ‘building blocks’ namely key partners, key activities, key resources, customer value proposition, customer relationships, channels, customer segments, cost structure and value capture (Osterwalder and Pigneur, 2010). The way businesses interpret these business model dimensions determines its sustainability (Rauter, Jonker and Baumgartner, 2015). It becomes an abstract tool that describes the interrelated activities in the process of interacting with customers, associates and merchants and it determines how successful a business creates, captures, and delivers value (Osterwalder & Pigneur, 2010; Bocken, Short, Rana and Evans, 2014; Zott and R. Amit, 2010). According to Boons and Lüdeke-Freund (2013) a basic business model outline is a combination of value propositions, customer interface and the financial model and this allows for creation of a competitive edge.

In essence, a business model is a description of the benefits that a venture hopes to deliver to customers, how it will deliver and value will be captured in the process (Chesbrough and Rosenbloom, 2002). A business model pronounces the logic, data, and other indications as to how a business generates and brings value to customers and it is only when a company identifies means of capturing value that they can bring benefits to their customers through innovation (Teece, 2010; Friedrich von den Eichen, Freiling and Matzler, 2015). The determination of how a firm delivers value is central in designing a business model (Teece, 2010; Boons and Lüdeke-Freund, 2013) and the ability create and capture value is well-defined by a firm’s business model (Öiestad and Bugge, 2014; Baden-Fuller & Morgan, 2010). Firms create their business models in response to changes in technologies, regulatory frameworks, competitor behavior and customer demands (De Reuver, Bouwan & Haaker, 2009).

2.3. Risk Management Systems

Steinherr (1998) considers risk management to be one of the most significant innovations of the 20th century. The decision theory states that risk is any uncertain component of an action, event or a process that has potentially detrimental and irreversible effects (Oprean, 2014). The occurrence of the global financial crisis in 2008, whose consequences were regarded as the worst since the Great Depression, has put financial institutions under the microscopic lens of policymakers and financial economists (Ibrahim, 2016). There some various forms of risks that affect the operational processes of firms including quality risks, environmental risks, health and safety risks and information security risks and firms must strive to create healthier operational environments where risks is minimized (Qi, Qingling, Wei & Jine, 2012). Nowicki (2013) suggests that a critical component of organisational strategy is the minimization of business risk to levels that ensure the competitiveness of the firm in the market. The identification,
assessment and minimization of hazards and risks should be aimed at mitigating the impact of risk on operations, products and services, infrastructure, and the business (Rebelo & Santos, 2014). The process of risk management is aimed at identifying and assessing risk with the aim of applying suitable methods to reduce the negative effects of risk and help firms better manage their operations (Tohidi, 2011).

There is a wide range of factors that are considered in risk management from the economic, economic, political and competitive, to the level of technological and financial development (Oprean, 2014). The overall objective of risk management is to provide the firm with the much needed information to lessen risks and alleviate the negative impact of risk on the firm’s activities and stakeholders (Rebelo, Silva & Santos, 2017). In addition, Agarwal and Hauswald (2010) recommend that progression in technology related to credit scoring permits banks to overcome limitations in lending as well as hardening soft information. Such rating-based credit risk assessment models have been widely by financial institutions in granting loans (Guo, Zhou, Luo & Xiong, 2016). Risk management activities include the selection and implementation various measures aimed at modifying the risk the business is likely to face (Szczepański & Światowiec-Szczepańska, 2012). The major activity in risk management involves limiting risk through controlling, and the other activities include risk evasion, risk transfer and the use of insurance to finance risk (Chapman, 2008). The effectiveness of the control mechanisms is measured by the extent to which a risk is eradicated or limited after the introduction of the measures. Measures of risk in banks include loans-to-assets ratio and the equity to assets ratio which measures the general capital strength in a bank while indicating the bank’s capital adequacy and stability level (Paulet, Parnaudeau & Abdessemed, 2014).

2.4. SME Lending Decisions

Small and medium enterprises (SMEs) contribute significantly to a country’s economic growth (Paul, Parthasarathy and Gupta, 2017). SMEs worldwide are responsible for the creation of many jobs and income opportunities for the poor thereby contributing to poverty alleviation and economic growth (Ayyagari, Demirgüç-Kunt and Maksimovic, 2011; Edoho, 2015). Like many developing countries, Zimbabwe is experiencing a significant rise in the number of SMEs in recent years (Macheka, Manditsera, Ngadze, Mubaiwa and Nyanga, 2013). The country’s black empowerment and indigenisation laws that culminated at independence in 1980 contributed to the growth of SMEs across sectors in the country (Nyangara, 2013). Despite the significant role that SMEs play in economic development, these SMEs continuously encounter hindrances particularly in developing countries (Bouazza, Ardjomuan and Abada, 2015). Access to finance by SMEs is largely cited as the greatest obstacle to SMEs development and as a result it has attracted the attention of academics and policy makers (Ardic, Mylenko and Saltane, 2012; Osano and Languitone, 2016). SMEs are unable to access bank financing because of lack of required collateral, limited awareness of funding opportunities and limited business support services.

Recently, there has been a renewed research interest the area of SME financing, considering the growth in the globalisation of financial markets (Stevenson & Pond, 2016). The procyclicality of bank lending post-global crisis created unwanted response effects that reduced economies’ allocative efficiency (Behr, Foos & Norden, 2017). Additionally, the global financial crisis of 2008–2009 brought about a negative shock to the growth of bank lending and consequently, SMEs access to financing, which is characterized by information asymmetry, was negatively affected (Cull & Pería, 2013). Existing literature strongly supports the notion that availability of finance is critical in the decision to undertake an entrepreneurial venture (Abe, Troilo & Batsaikhan, 2015). SMEs presently do not have adequate resources take up innovative developments and improve growth opportunities (Paulet et al., 2014). SMEs access to financing
in developing largely depends on several internal and external firm factors (Berg & Schrader, 2012).

The objectives of a bank, which include profit maximization essentially, influence the bank’s lending behavior, scale, choice, and timing (Behr, Foos and Norden, 2017). In this context, smaller banks are generally willing to consider financing small firms than relatively large banks (Canales and Nanda, 2012). In many countries, monetary authorities have sought to encourage banks to lend to SMEs as a way of promoting the sector’s growth (So, Thomas & Huang, 2016). Yet, asymmetric information, inadequate collateral and inexperienced managers are some of the challenges that restrict SMEs access to bank financing (Shaban, Duygun and Fry, 2016). In addition, banks sometimes avoid advancing financing to some SMEs like young start-ups even though they exhibit the possibility of high returns because of the possibility of risk of loss (Muller, Gagliardi, Caliandro, Bohn and Klitou, 2014). That said, this paper explores how business models and risk management systems influence banks’ decisions to lend to SMEs.

2.5. Conceptual Model And Hypothesis Development

A review of existing literature led to the development of the following conceptual model. The conceptual model is a pictorial representation of the hypotheses proposed and the relationships being investigated in the broader research. Figure 1 summarizes the proposed theoretical relationship between the variable under study.

![Conceptual Model](image)

Figure 1: Conceptual Model

2.5.1. Financial Performance Orientation and Risk Management Systems

Financial performance can be defined as the ability of firms to operate competently and profitably, to survive and grow while reacting well to the opportunities and threats in the business environment. In this study, financial performance was measures using and instrument adapted from Moorman and Rust (1999) that basically measured financial performance subjectively. Return on assets, net profits, sales, and market share were the main issues
included into the measurement instrument. Currently organisations are facing increasing global competition coupled with growing while changing customer demands for product innovativeness and supplier sensitivity and these factors transformed firms‘ business models while reducing the incentive for banks to take up new risks (Chan and Qi, 2003). The uncertainty in the business environment makes it difficult to monitor risk in certain investment assets (Szczeparski and Światowiec-Szczeparska, 2012). One of the firm’s motives for managing risk is to ensure the stability of earnings and cashflows and the reduction in risk allows the firm to make better forecasts and avoid financial distress and its consequences (Dhanini, 2007; Drogt & Goldberg, 2008). Failure to manage risk or misjudging a risk has catastrophic consequences, to the firm extending from customer loss to bankruptcy (Hollman & Mohammad-Zadeh, 1984). Risk management significance in banks and other financial intermediaries is magnified because of the position that these occupy in the economy and the fact that intermediation itself is a source of other risks (Sharma, 2008). An understanding of risks and mechanisms to prevent them helps preserve and improve competitive position (Oprean, 2014). Existing literature has shown that banks in their business models can combine their daily activities with improvement in profitability, while minimising risk (Hryckiewicz & Kozlowski, 2017). Given the arguments above, this study proposes the following hypothesis.

**H1:** Financial Performance oriented business models are significantly and positively related to risk management systems in SMEs lending.

### 2.5.2. Value Creation Alignment and Risk Management Systems

The notion of value creation has over the years remained a central issue in corporate strategy development (Tuch and O’Sullivan, 2007). The value creation process, as contained in the dynamic capability theory, focuses on how firms revive or alter their resources persistently to improve their well beings (Eisenhardt & Martin, 2000; Teece, 2007). It involves reconfiguring the consumers’ perception on the worthiness of a product or service (Priem, 2007). The process of reconfiguring the firm’s core processes carries a risk in that the implementation of new manufacturing processes for example, may alter standard product specification leading to product unacceptability in different national markets or consumer groups (Schoenberg & Bowman, 2015). Commercial banks now face competition from investment banks, mutual funds and insurance companies who have incorporated commercial banks’ core business activities into their own (Olivero, Li, & Jeon, 2011). When banks, particularly those in growing economies with limited domestic markets, expand their operations to new geographical markets, they are presented with opportunities for both growth and value creation (Lu and Beamish, 2001). As banks undertake to expand their activities, they expose themselves to risk such as liquidity risk (Jenkinson, 2008) thereby negatively affecting profitability of the bank (Chaplin, Emblow & Michael, 2000). Undoubtedly, there is a link between investment decision making, banking system development, firm value and risk management and given this interconnectedness, it is imperative that this study proposes the following hypothesis.

**H2:** Value creation business models are significantly and positively related to risk management systems in SMEs lending.

### 2.5.3. Customer Alignment and Risk Management Systems

Scholars have thrown some doubts on the notion that banks always make the best lending decisions that always lead to the competent distribution of credit. Such scholars have argued that the customer should not be ‘forgotten’ in the discussion of lending decisions (Heo & Lee, 2011). As banks continue to compete for deposits in the competitive environment they are bound to alter their funding decisions and costs (Sääskilahti, 2016). Competition, increasing costs of customer acquisition and growing customer switching tendencies, have forced many
banks to adopt a strategic emphasis on customer retention (Ennew and Binks, 1996; Manrai and Manrai, 2007). One critical component of bank lending decisions is information asymmetry between lender and borrower and banks have developed closer relationships with their customers to reduce such informational irregularities (Boot, 2000). Banks also manage their costs by cross selling different financial products to the same customer hence the need to reinforce the relationships with customers and foster customer loyalty (Bonini, Dell’Acqua, Fungo and Kysucky, 2016). There are numerous other evident benefits to banks for maintaining long-term relationships with its customers (Ying and Yuande, 2013). Profitability and competitive advantages are gained through ensuring quality relationships exist between banks and their customers, given the level of competition in the banking industry and a dwindling customer base (Ndubisi, 2007; Izogo, Reza, Ogba and Oraedu, 2017). Concisely, sustaining good customer relationships and continuous patronage is regarded as critical for organisational success (Izogo, 2016; Ndubisi Kho-Lattimore, Yang and Capel, 2011). In this respect, banks find themselves having to trade off tight risk management systems for customer loyalty and retention because such relationships impact banks performance (Hasana, Jackowicz, Kowalewski and Kozlowski, 2017). Based on the above, the following research hypothesis is proposed.

**H3:** Customer aligned business models are negatively related to risk management systems in SMEs lending.

### 2.5.4. Risk Management Systems and SMEs Lending Proclivity

Banks’ lending decisions are based on some process that is meant to overcome operational problems that have the potential to affect the viability of bank (Ashton and Keasey, 2003). One factor that has limited SMEs to access bank financing is information opacity, which is generally high in the young who generally do not have audited financial statements and thus they lack the financial information needed to make an informed decision on a business loan application (Hasana, Jackowicz, Kowalewski and Kozlowski, 2017). The greater probability of default prevalent among SMEs force banks to reduce the amount of credit advanced to these firms (Behr, Foos and Norden, 2017). SMEs are generally considered as riskier, more financially constrained and more bank-dependent than large firms and as such traditional methods of risk management may not be favorable for lending to SMEs (Ashton & Keasey, 2003). Bank lending to SMEs is always affected information asymmetries and its unattractive risk management practices (Behr, Foos & Norden, 2017). Accordingly, the following research hypothesis is formulated:

**H4:** Risk management systems are significantly and negatively related to SME bank lending proclivity

### 2.5.5. Financial Performance Orientation and Value Creation Alignment

Because of a series of company failures, product failures, stock market pressures, brand collapses and increased competition in the market, that the world has experienced, the notion of value creation has become a global issue (Lau and Tong, 2008; Prahalad and Ramasamy, 2004). In a dynamic and competitive business environment, the essential logic for value creation is also changing, making strategic thinking critical for survival (Acharyulu and Shekhar, 2012). Value is created in an organisation through the transformation of organisational inputs into short and long term outputs and outcomes for the benefit of firm stakeholders, society, and the environment (Abdullah and Said, 2015). Anderson et al (2014) have concluded that firms that understand and consider value creation at their management controls will yield better economic and behavioral aspects. Each mode of value creation corresponds with a set of value creation activities and these activities affect the internal structure of the organisation (Kraaijenbrink and
Spender, 2011). Existing literature has shown that there is a positive relationship between value creation and business performance (Fuller, 2001; Gholami, 2011; Kraaijenbrink and Spender, 2011). Given these elements, we propose the following hypothesis:

\( H_5: \) Financial performance oriented business models are significantly and positively related to value creation alignment.

3. METHODS OF THE STUDY

3.1. Sample and Data Collection

The target population of the study is commercial banks. As of 31 December 2016 they were 13 registered commercial banks. Per each institution, questionnaires were distributed to owners/managers, loan officers/credit controllers and branch managers, considering that they are actively and meaningfully involved in the operational functions of the lending institutions. Data for this study was collected using self-administered questionnaires from a sample of 13 institutions (450 respondents) and of these, 273 questionnaires were returned and analysed after cleaning. The response rate was acceptable as it aligned well with the requirements for structural equation modelling (SEM), which requires a sample size of 200 or more observations (Hair, Black, Anderson & Babin, 2010).

3.2. Data Analysis and Results

Structural equation modeling (SEM) was used to statistically analyse the relationship between variable as it provides a more vigorous methodology for testing causal models (Kline, 2004). SEM is a technique that specifies, estimates, and evaluates linear relationships between a set of latent and observed variables (Byrne, 2001; Shah and Goldstein, 2006). SEM has the ability to examine multiple relationships simultaneously and allows for measurement errors. AMOS version 24.0 was use for SEM and a two-step model building method was employed, where measurement properties are validated first, then the structural model (Joreskog and Sorbom, 1993).

3.3. Sample Description

The demographic profiles of the research participants are presented in Table 1. Most the respondents have a meaningful academic qualification with most of them (49.45%) having a professional qualification. This strengthens the findings of this research because at least it can be concluded that the respondents understood the questions and gave reasonable responses. Most of the respondents are directly involved in the lending process. 52.01% are credit controllers or analysts and 30.04% are loan officers. The research was on lending decisions and these are the best people to relate to on such issues. The involvement of Management in the research also validate the findings are these are responsible for managerial functions like business modelling and risk management. For note is the fact that there were more male respondents than female respondents.
### Table 1 Sample Demographic Characteristics

<table>
<thead>
<tr>
<th>Highest Level of Education</th>
<th>Freq</th>
<th>%</th>
<th>Position in Bank</th>
<th>Freq</th>
<th>%</th>
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<tr>
<td>Doctorate</td>
<td>2</td>
<td>0.73</td>
<td>Management</td>
<td>28</td>
<td>10.26</td>
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<tr>
<td>Postgraduate Degree</td>
<td>15</td>
<td>5.50</td>
<td>Credit Controller/Analyst</td>
<td>142</td>
<td>52.01</td>
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<tr>
<td>Undergraduate</td>
<td>102</td>
<td>37.36</td>
<td>Loan Officer</td>
<td>82</td>
<td>30.04</td>
</tr>
<tr>
<td>Professional Qualification</td>
<td>135</td>
<td>49.45</td>
<td>Bank Teller</td>
<td>5</td>
<td>1.83</td>
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<tr>
<td>High School</td>
<td>19</td>
<td>6.96</td>
<td>Other</td>
<td>16</td>
<td>5.86</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>273</td>
<td>100</td>
<td><strong>Total</strong></td>
<td>273</td>
<td>100</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Participants Work Experience</th>
<th>Freq</th>
<th>%</th>
<th>Gender</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
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<tr>
<td>≤ 2 years</td>
<td>85</td>
<td>31.14</td>
<td>Male</td>
<td>153</td>
<td>56.04</td>
</tr>
<tr>
<td>3-5 years</td>
<td>98</td>
<td>35.90</td>
<td>Female</td>
<td>120</td>
<td>43.96</td>
</tr>
<tr>
<td>6-10 years</td>
<td>56</td>
<td>20.51</td>
<td></td>
<td>273</td>
<td>100</td>
</tr>
<tr>
<td>11-20 years</td>
<td>23</td>
<td>8.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 21 years</td>
<td>11</td>
<td>4.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>273</td>
<td>100</td>
<td><strong>Total</strong></td>
<td>273</td>
<td>100</td>
</tr>
</tbody>
</table>

#### 3.4. Validation of measures

In both exploratory and confirmatory studies, survey instruments are commonly subjected to reliability and validity inspections (Collis & Hussey, 1995) and this measurement instrument validation is somehow a precondition to testing a model and research hypotheses (Shan & Jolly, 2013). Reliability of an instrument relates to the constancy and consistency of an instrument in measuring a variable (Page & Meyer, 2000; Sekaran, 2003). In this study, scale reliability, convergent validity and discriminant validity were assessed. Convergent validity was determined by calculating item reliability, internal consistency, and average variance extracted (AVE) (Fornell & Larcker, 1981) while convergent validity and discriminant validity were assessed using confirmatory factor analysis.

Item reliability assesses the loadings for each individual item. The loadings indicate the correlation of the items with their respective constructs. Table 2 presents the detailed item loadings, internal consistency and the average variance extracted. A factor loading that is above 0.60 is regarded as high enough hence significant to explain variations in the variable (Johnson & Wichern, 2002). The item loadings from this study ranged between 0.714 and 0.889 making them acceptable and hence all items were significant in explaining the variations in the variables. Regarding internal consistency, Fornell and Larcker (1981) stipulate that the minimum acceptable value is 0.7. They also add that the AVE value must be greater than 0.5 to be acceptable. The results contained in Table 2 indicate that all the variables have internal consistency values above 0.7 value and AVE values above 0.5. This implies that convergent validity of the measurement properties was achieved.
Another important assessment measure is discriminant validity. Discriminant validity relates to the extent to which two theoretically comparable variables are different (Hair et al., 1998). As advocated for by Barclay, Higgins, and Thompson (1995) discriminant validity is established when the square root of the AVE is greater than the inter-construct correlations. The results in Table 3 prove that adequate discriminant validity of the measurement model was established. The constructs in this measurement model do differ from each other.

Table 2 Item Loading, Composite Reliability (Cr) And Average Variance Extracted (AVE)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Loading</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Performance Orientation (FPO)</td>
<td>FPO1</td>
<td>0.850</td>
<td>.916</td>
<td>.733</td>
</tr>
<tr>
<td></td>
<td>FPO2</td>
<td>0.889</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FPO3</td>
<td>0.805</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FPO4</td>
<td>0.878</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Alignment (CA)</td>
<td>CA1</td>
<td>0.745</td>
<td>.843</td>
<td>.573</td>
</tr>
<tr>
<td></td>
<td>CA2</td>
<td>0.758</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CA3</td>
<td>0.714</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CA4</td>
<td>0.801</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value Creation (VC)</td>
<td>VC1</td>
<td>0.637</td>
<td>.800</td>
<td>.501</td>
</tr>
<tr>
<td></td>
<td>VC3</td>
<td>0.612</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VC4</td>
<td>0.752</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>VC6</td>
<td>0.622</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Management Systems (RMS)</td>
<td>RMS1</td>
<td>0.829</td>
<td>.672</td>
<td>.891</td>
</tr>
<tr>
<td></td>
<td>RMS2</td>
<td>0.819</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RMS3</td>
<td>0.824</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RMS2</td>
<td>0.808</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SME Lending Proclivity (SLP)</td>
<td>SLP1</td>
<td>0.664</td>
<td>.811</td>
<td>.520</td>
</tr>
<tr>
<td></td>
<td>SLP2</td>
<td>0.687</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SLP3</td>
<td>0.701</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SLP4</td>
<td>0.821</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Another important assessment measure is discriminant validity. Discriminant validity relates to the extent to which two theoretically comparable variables are different (Hair et al., 1998). As advocated for by Barclay, Higgins, and Thompson (1995) discriminant validity is established when the square root of the AVE is greater than the inter-constructs correlations. The results in Table 3 prove that adequate discriminant validity of the measurement model was established. The constructs in this measurement model do differ from each other.

Table 3 Correlation Of Latent Variables And Square Roots Of Ave

<table>
<thead>
<tr>
<th>Construct</th>
<th>FPO</th>
<th>CA</th>
<th>VC</th>
<th>RMS</th>
<th>SLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Performance Orientation (FPO)</td>
<td>0.856</td>
<td>-0.182</td>
<td>0.757</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Alignment (CA)</td>
<td></td>
<td></td>
<td></td>
<td>0.708</td>
<td></td>
</tr>
<tr>
<td>Value Creation (VC)</td>
<td>0.386</td>
<td>-0.020</td>
<td></td>
<td>0.820</td>
<td></td>
</tr>
<tr>
<td>Risk Management Systems (RMS)</td>
<td>0.399</td>
<td>-0.226</td>
<td>0.615</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SME Lending Proclivity (SLP)</td>
<td>0.330</td>
<td>0.141</td>
<td>0.362</td>
<td>-0.493</td>
<td>0.721</td>
</tr>
</tbody>
</table>

(The bold elements in the main diagonal are the square roots of AVE)
4. RESULTS

4.1. Research Model Assessment and Tests of Hypotheses

Model fitness was also assessed and the hypothesis tested. For the model to be regards as fit, the CFI values should be between 0 and 1 and the closer the number is to 1 the better the model fit and a CFI value of 0.90 or greater indicated an acceptable model fit (Hu & Bentler, 1999). The Root Mean Square Error of Approximation (RMSEA) estimates are also used to assess model fitness and a RMSEA of 0.06 or less indicates a satisfactory model fit (Hu & Bentler, 1999). The results reported below Table 4 show that the model is satisfactory in terms of general goodness of fit. The results show that, CFI was 0.918, and RMSEA was 0.056 and consequently thresholds were achieved (Bentler, 1990). The results of the hypotheses testing are detailed in Table 5. All the 5 hypotheses stated in the conceptual model were supported.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_1$: FPO $\rightarrow$ RMS</td>
<td>0.162*</td>
</tr>
<tr>
<td>$H_2$: VC $\rightarrow$ RMS</td>
<td>0.651*</td>
</tr>
<tr>
<td>$H_3$: CA $\rightarrow$ RMS</td>
<td>-0.234*</td>
</tr>
<tr>
<td>$H_4$: RMS $\rightarrow$ SLP</td>
<td>-0.264*</td>
</tr>
<tr>
<td>$H_5$: FPO $\rightarrow$ VC</td>
<td>0.481*</td>
</tr>
</tbody>
</table>

Note: GFI=0.882; AGFI=0.852; IFI=0.918; TLI=0.900; CFI=0.918; RMSEA=0.056; *p<0.01.

4.2. DISCUSSIONS AND CONCLUSIONS

This study made use of the Modern Portfolio Theory to provide a theoretical grounding for the conceptual model to examine the impact of business models on SMEs lending proclivity by banks, as well as the mediating role of risk management systems. The study proposed that business models impact on risk management decisions which in turn are negatively related to SME lending tendency. The findings of the study indicate that banks with business models that are more inclined towards increasing financial performance and creating value positively correlate to tighter risk management systems, while those who are customer centric tend to have lighter demands in their management of risk. Banks and microfinance institutions are characteristically profit-oriented and are expected to deliver by their shareholders (Meriläinen, 2016). However, there is evidence of some institutions that exhibit greater customer orientation and tend to be tolerant to the SMEs financing demands. Customers aligned banks tend to have in place lighter risk management demands and as a result tend to lend more to these SMEs. Reasons for customer alignment are summarised by Santos (2009) who states that a closer interface with crucial customers and product end-users does not only enable firms to study their current market needs, but also enable the firm to discover future customer needs ahead of competition. This kind of SME tolerant lending behavior was generally observable among Non-Governmental Organisations backed microfinance institutions and government affiliated specialised banks.

5. IMPLICATIONS AND RECOMMENDATIONS

Since financial performance and value creation business model tend to be associated with stringent risk management systems, perhaps it will be beneficial to both banks and SMEs if
banks alter their business models slightly to enhance fee and commission based activities. From the questions asked to the respondents, the current value creation and financial performance focused business models have meant that banks subject borrowers to rigorous risk assessments and those that pass the test are subjected to high interest rates to compensate for taking up the perceived risk. However, as stated by Kok, Mirza, Móré and Pancaro (2016), a shift to fees and commissions based models result in diversified income sources thus helping banks stabilise their capital generation and become less reliant on net interest income. Once banks are able to expand their fees and commissions generating activities they may eventually be able to reduce the interest rate the demand from SMEs thereby improving on access to financing. While it is not clear whether a stronger dependence on fees and commissions income will fully compensate for lower net interest income, a study by Altunbas, Manganelli and Marques-Ibáñez (2011) has shown that fees and commission income tends to be more stable than both net interest income and trading income. This model does not divert much from the ultimate objective of interest income based business models.

The results expose the need for policy makers to promote and incentivize the formation of Savings and Cooperative Banks to enhance SMEs access to debt financing. While commercial and merchant banks as well as micro finance institution are profit oriented, savings and cooperative banks are stakeholder banks and usually they do not have a profit distribution determination; hence, they are not primarily profit-oriented. As argued by Fonteyne (2007) cooperative banks are not shareholder owned but belong to contributing members, who frequently are the customers such that, instead strictly seeking to maximise returns cooperatives may seek to primarily serve their members. The need to educate banking institutions on the significant role the customer plays in value creation is evident from this study. When the focus of a firm is the customer in value engineering, they achieve market success through focused innovation and shared resources, knowledge, and skills. This means that by adopting a more customer aligned business model, the bank’s goal of value creation is eventually achieved while satisfying SMEs’ financial needs.

An alternative creditworthiness evaluation system may be very handful in ensuring that SMEs access debt financing from banks and microfinance institutions. In Zimbabwe, financial institutions, in pursuance of the financial performance maximization and value creation business models advance loans to SMEs primarily based on past repayment data, something many SMEs do not possess. While such traditional risk management strategies are highly dependable, the use of alternative data from online, mobile, and psychometric sources may also yield similar if not better results. One’s willingness and ability can also be determined through a series of psychometric evaluations rather than through submission of audited financial statement and pledging of collateral. This however does not undermine the fact that financial institutions that look to enhance their understanding of their customers, build their business portfolios, and manage risk should make greater use of these alternative data sources, as sources of opportunities and to enjoy the distinct advantages inherent to such data sources.
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Subsidy Regime in Nigeria, 1999-2014

Eme, Okechukwu Innocent  
Department of Public Administration and Local Government, University of Nigeria, Nsukka  
okechukwu.eme@unn.edu.ng

Ugwu Chistain Chibuike  
Department of Public Administration and Local Government, University of Nigeria, Nsukka

Asogwa Maxmius  
Department of Public Administration and Local Government, University of Nigeria, Nsukka

Abstract  
This study examined the socio-economic of subsidy regime in Nigeria between 1999 and 2014. The researchers investigated the negative and positive effects of the subsidy policy on the masses in order to examine how the policy has properly impacted on the life of the, the intended beneficiaries. Subsidy regime in Nigeria has been a policy that each government tries to pursue because Subsidy has become a policy tool of government by giving incentive to industries, agriculture, health, transport, education, and oil, in other to promote and develop the economy. These subsidies were meant to helping the masses to assess these facilities at their own convenience and at a reduced price. However, up until the time of the study, the masses have not felt the impact of policy in the economy because of lack of proper consultation. The research methodology used for the study is documentary. The study found out that the policy is characterised among others by corruption and loss of revenue by the government among others. Recommendations were made on how to make the policy yield positive results in other to achieve its objectives in Nigeria.

Keywords: Subsidy Regimes, Corruption, Nigeria, Policy & Political System.

1. Introduction  
Subsidy regime has become a policy framework that each government in Nigeria tries to pursue because subsidy has been seen as a management and policy tool of government’s industrialization. However, up until the time of writing this paper, majority of the populace have not felt the impact of this policy because of its top-bottom approach.

Amidst the level of corruption and uncertainty surrounding the bases, application, impact, and sustainability of the policy, various governments have continued to pursue the subsidy option without sound empirical insights for the intended beneficiaries such as the rural poor, small
and medium scale investors who produce more than 70% of the nation’s agricultural output. In the area of transport, the masses are still experiencing unbearable hardship in transport fares. The same experience is equally manifesting in the fields of education and health where quality education and health care services are above the poor in Nigeria.

If subsidy is continually been targeted improperly and disproportionately benefiting the non-poor masses in Nigeria, it is imperative that the policy be reformed and re-tooled to become more socially effective. To achieve this objective, the second section of the paper examined conceptual issue- subsidy. The third segment explored methodologies issues and theoretical framework of analysis. The next part discussed sin a thematic form the areas government have intervened. The following sections offered recommendations and conclude the paper.

2. Contextualising Subsidy

Putnam and Bartlett (1993) referred to subsidy as the transfer of economic resources by the government to the buyer or seller of goods or services that have the effect of either reducing the price paid, increasing the price received, or reducing the cost of production of the goods and services. According to (Keppler, 1995; Koplow, 1993; Michaelis, 1995; Pearce and Warford, 1993), subsidy is a form of government monetary support payment to a particular economic sector, institution, business, individual with the aim of promoting an activity or set of activities that the government deems beneficial to the economy in particular and to society at large. Indeed, this is one of the main roles that governments are created to perform: to encourage activities which, if left solely to market, would occur in unfavourable quantities.

Todaro et al( 2009), Bakare (2012) and Ayogu(2012) share the same view on subsidy. For them, a subsidy is an assistance paid to a business or economic sector mainly by the government to prevent the decline of that industry or selling government services at a social cost.

But Agboeze (2012) pointed out a new dimension of subsidy debate. For him, it is a policy tool that addresses protectionism or trade barrier by making domestic goods and services artificially competitive against imports. This view equated subsidy with waiver policy.

Hornby, (2005) and Agu (2009) in their different studies defined the term within the context of waiver. Agu (2009:286) captured the views of these scholars when he defined the concept as a payment made by government to producers of certain goods and services, to enable them produce and sell at lower prices than they would otherwise. Agu was of the view that the policy helps to lower the market prices below the factor costs, so that consumers would have the privilege to pay less for the goods and services than they cost the producer to produce it. Critics of this view have posited that subsidy may distort markets, and can impose large economic costs.

What these definitions have in common is that subsidy is a device employed by governments to assist either the consumers or producers to consume or produce certain commodities at prices below the prevailing market prices. It is also an incentive given to either the consumers or producers to by government at the expense of expected revenue boom.

For our purpose, a subsidy amounts to any government expenditure that makes a resource such as energy, agricultural products, education and transport appear cheaper to final consumers than its full economic cost. All such expenditures represent hidden costs of producing, converting and using a resource.
3. Methodology

Theoretical Framework

**System theory will be used as our theoretical framework of analysis.** System theory is one of the most widely used theoretical framework by scholars and students respectively. This theory depends so much from the works of the following scholars-Ludwig von Bertalanffy (1950), Talcott Parson (1951) and David Easton (1965a &1965b), among others. They conceived a system as a set of elements that are linked in interaction and share some common features. This includes any grouping with any sort of the relationship, collection of people, etc. A system is regarded as a phenomenon (be it physical, biological or social), is conceived as an organized purposeful whole, composed of structurally identifiable boundaries from the supra-system (the Environment) in which it interacts.

According to Russel Ackoff (1972) quoted in Enwerem (2009:51), the systems theory is an important transition from the mechanistic concept of social reality which sought to explain a phenomenon from the standpoint of its constituent units as a part in terms of the whole. In addition, he stated that a system is a whole, which cannot be taken apart without the loss of its essential characteristics. The characteristics include:

1) A system has a set of objectives, which the entity seeks to achieve, and without it cannot exist.

2) A hierarchy of inter-dependent units (sub system) which interact among themselves in order to achieve the system objectives.

3) Each sub-set of structure have roles to play, meaning that each sub-system has a defined and specialized role in the realization of the purpose of the system and sub-system roles are mutually reinforcing.

4) An input transforming technology processes and techniques by which resource inputs extracted from within, has implication for systems perspective and effectiveness through feedback mechanism.

5) A boundary which excludes the plethora of other structures that define the threshold of transformations among the universe of system;

6) An environment meaning the larger context in which the system is situated a context in which it engages in mutual transactions through the agency of input and output.

Accordingly, system theory assumed that,

- The society makes demands as society also renders supports
- The system processes the demand.
- They are a dynamic Environment.
- They are always a feedback to the system by the society (Anderson,1997, Dye,2008 & Jones, 1977)
Figure: A Model of the Political System


Inputs into the political system from the environment consists of inputs of demands and supports. The former are the claims for action that individuals and groups make to satisfy their interests and values while the latter are gotten when groups and individuals support governments either by voting them in during elections, pay their taxes, obey laws, and otherwise accept the decisions and actions undertaken by the political system in response to demands. The amount of support for a political system suggests the extent to which it is regarded as legitimate, or as authoritative and binding on its citizens.

Outputs in system theory are processed information which include laws, rules, judicial decisions, and the like. Regarded as the authoritative allocations of values, they constitute public policy. The concept of feedback refers to the responses government from the people when policies are made. It may generate support or crises that will require another policy to correct.

The usefulness of system theory in studying any public policy is limited by its highly general and abstract nature. It does not moreover; say much about the procedures and process by which decisions are arrived at within the “black box” called the conversion chamber. Indeed, systems theory depicts government as simply responding to demands made upon it, and its results are sometimes characterized as “input-output studies.” Nonetheless, this approach can be helpful in organizing inquiry into policy formulation. It also alerts us to some important dimensions of the political process. For instance, How do inputs from the environment affect the content of public policy and the operation of the political system? How in turn does public policy affect the environment and subsequent demands for policy action? How productive is the political system able to convert inputs of demand into public policy and preserve itself over time?

Application of the Theory

Nigeria as a political entity has environment were groups and government both make demand. Governments demand the payment of taxes, be law abiding and support government programmes, the people equally demand from governments accountability, and
decisions which the citizen must abide in to show support to the governments. The conversion box will be the government, which is a sub-system of the system (Nigeria), where all problems are been brought to. All the issues been brought in by all sectors of the economy are been iron out in line with the government policies of the country which is highly dependent on the policy direction and capability of the government in power. For instance during the Jonathan’s regime his government brought out the issue of tax waiver which his predecessors also did. Waiver is the charging and waiving of customs duty, an integral part of the tax system in any country which a government routinely use in her attempt to influence economic and industrial development with the aim of furthering her national objectives (Weber, 1994).

As Okeke (2001) posited, in several developing counties, government provide tax incentives, which include duty waivers, to encourage capital formation in selected industries. But in order to help achieve this objective, such incentive must meet the characteristics of a good tax system, which include fairness, transparency and even handed application (Duanjie 2004).

The then President Jonathan administration grossly abused waivers to businesses. In September 2011, for instance the former Minister of Finance announced that the power to grant waivers have been transferred from the President to the Economic Team in order to avoid further abuses. Such a pronouncement meant that the Government was simply replacing one illegality with another illegality. This is so because there is no mention of the “Economic Team” in the laws governing the granting of custom duty waivers in Nigeria. On 30th November, 2011, Daily Trust exclusively reported that the Federal Government granted rice and palm oil import duty waivers amounting to about N150 billion to 10 companies. With one of them securing the duty write offs 164 times since February 2011. (Daily trust, 30 November 2011). Later that year, the President directed that no import waiver should grant in the 2012 fiscal year. (Punch 29 Oct, 2012). This like all previous policy directives did not stand the test of time.

The output of the process occurred in the conversion box turn out to be negative as we have mentioned about the waiver. If a government adopts a policy and at the long run things gets bad or says bad politicians hijack it, the people will perceive danger and it will lead to dissatisfaction among the people. When the government fails to bring out policies that can benefit the people the resultant effect will be agitation. This output determines the next input through the feedback the feedback loop mechanism.

4. Subsidy Regime in Nigeria: A Thematic Exposition

The history of subsidy regime in Nigeria has history that dates back to the era of national development plan. To do justice to the discourse to the sectoral analysis, we are going to discuss them in themes:

The Agricultural Sector

Before the discovery of oil in Nigeria, agriculture was the mainstay of the Nigerian economy. It provided food and employment for the populace, raw materials for industries and revenue and foreign exchange for the Government. Largely there are four historical epochs in Nigeria. The first epoch was 1960–69 during which the developmental approach was essentially laissez-faire. Agriculture was mainly in the hands of small scale subsistent operators. Government involvement was limited to the development of research institutions for agricultural research and product marketing (marketing and commodity boards). The second phase was the period of intensive state control of agricultural activities (1970–85). The third phase was the era of Structural Adjustment Programme and guided deregulation (1986–99) when government started promoting large scale farming with limited support for subsistent farmer. Land was deregulated. The fourth phase is the era of reform under a democratic
government in which the economy is conceived to be market-oriented and private sector driven.

The period had witnessed policies in many critical areas including agricultural credit guarantee, granting of subsidy on fertilizer and other agriculture inputs, regulation of food import through appropriate tariff policies, establishment, and abolition of commodity boards, establishment of commodity marketing companies, and land reform. Under the era transformation agenda instituted by the Jonathan administration (2011–15), emphasis is on the development of agricultural commodity value chains, transformation of agricultural marketing, reform of agricultural insurance, improved agricultural finance through the Nigerian incentive-based risk sharing system for agricultural lending and establishment of microfinance banks for agriculture.

Education Sector

Nigeria’s independence education system and policy was characterized by series of committees and conferences. Concrete steps toward curriculum reforms started in 1966 by the National Education Research Council (NERC) under Chief Awokoya (Sofolahan, 1987). In September 1969, the curriculum reform conference debated on appropriate curriculum contents and problems in Nigeria’s education system. Another conference held in 1973 led to the formulation and production of the National Policy on Education in 1977 and as revised in 1981 and 2004 respectively. The production of this document and the eventual take-off of the policy in 1982 in some states of the country, marked the end of the post-independence piece-meal and rather disjointed adjustments to the colonial education heritage bequeathed on Nigeria by the British.

The education system based on the National Policy on Education (NPE) document of1977 (last revised in 2004). This policy document addressed the issues of imbalance in the provision of education with regard to access, quality of resources and girls’ education. The policy organized education curriculum into 6 years of primary education, 3 years of junior secondary school, 3 years of senior secondary education and 4 years of university/polytechnic/college education.

Government initiatives to reform the education system in the 1990s included the revision of the National Policy on Education document and two studies of the education sector was conducted on how to improve education. The first study “A Situation Analysis Policy Study” (SAPA) conducted in cooperation with the United Nation Children’s Education Fund (UNICEF). The study was undertaken to help analyze the factors inhibiting access to education, and factors that affect the quality of education. The study was conducted between 1991 and 1992. The second study was conducted in 1997 and was aimed at assessing learning achievements of Nigerian primary school children at level four. The results of this study indicated that the children lacked basic numeracy and literacy competencies.

Another initiative by the government during this period was the introduction of a free and compulsory nine-year schooling program in 1992. It covered primary education and junior secondary education. The main objective of the program was to ensure that there was a smooth transition from primary education to junior secondary school. It also aimed at ensuring that learners remain in school long enough to acquire basic and life skills.

In 1996 another initiative was taken by the government in the area of funding of education. The initiative, FGN/ODA Nigeria community education programme aimed at addressing the needs of rural communities in three states of the Federation, namely, Abia, Bauchi, and Akwa-Ibom and to meet the needs of the nomadic communities in the North Eastern part of the country. The objective of this initiative is to increase equality and access to education especially women
and girls in the targeted communities. Other initiatives are in the restructuring of education funding arrangements.

In the case of secondary schools, between 1989-1994 the Federal Government was funding about 66 secondary unity schools and the rest were funded by the State governments. The administration, management and funding of the schools are shared between the State Ministries of Education, the National Secondary Education Commission and other agencies as prescribed in the legislation (Moja2000). Education at this level is free of tuition although students were expected to pay levies as contribution to the costs of running the schools. Education at this level has two purposes. One, is to prepare pupils to exit school with the necessary skills to find employment, and the other is to prepare them to continue with academic careers in higher education.

The Federal government is the major financier of higher education in Nigeria.

Government funding of education has been inadequate. The funding of education is shared among different levels of government and supplemented by funds from other sources such as businesses, community organizations, and levies charged to parents. The revenue collected through fees constitutes an insignificant proportion of the revenue of the institutions. Inadequate funding of education has been one of the most significant causes of the low quality of much of the education offered at all levels. Funding allocations have been in flux during the last decade. Overall, there has been a drop in the funding level of education. The table 1 below summarizes the year – by – year allocation to the sector between 1999 – 2016.

<table>
<thead>
<tr>
<th>Year</th>
<th>Allocation in billion</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>N23.047</td>
<td>11.2%</td>
</tr>
<tr>
<td>2000</td>
<td>N44.225</td>
<td>8.3%</td>
</tr>
<tr>
<td>2001</td>
<td>N39.885</td>
<td>7.0%</td>
</tr>
<tr>
<td>2002</td>
<td>N100.2</td>
<td>5.9%</td>
</tr>
<tr>
<td>2003</td>
<td>N64.76</td>
<td>11.8%</td>
</tr>
<tr>
<td>2004</td>
<td>N72.22</td>
<td>7.8%</td>
</tr>
<tr>
<td>2005</td>
<td>N92.59</td>
<td>8.3%</td>
</tr>
<tr>
<td>2006</td>
<td>N166.6</td>
<td>8.7%</td>
</tr>
<tr>
<td>2007</td>
<td>N137.48</td>
<td>6.07%</td>
</tr>
<tr>
<td>2008</td>
<td>N210.00</td>
<td>13%</td>
</tr>
<tr>
<td>2009</td>
<td>N183.36</td>
<td>13%</td>
</tr>
<tr>
<td>2010</td>
<td>N249.08</td>
<td>12%</td>
</tr>
<tr>
<td>2011</td>
<td>N356.51</td>
<td>7.94%</td>
</tr>
<tr>
<td>2012</td>
<td>N400.15</td>
<td>8.43%</td>
</tr>
<tr>
<td>2013</td>
<td>N427.52</td>
<td>8.7%</td>
</tr>
<tr>
<td>2014</td>
<td>N493.45</td>
<td>-</td>
</tr>
<tr>
<td>2015</td>
<td>N292,242,784,654</td>
<td>-</td>
</tr>
<tr>
<td>2016</td>
<td>500bn</td>
<td>-</td>
</tr>
</tbody>
</table>

Sources: From the authors and collections from the Budget office, CBN &NBS

Despite the increase in allocations, in real terms the recurrent financing per student has declined by more than 30% (ASUU, UNN Branch 2009) while student enrollment increased by 88%. There is a huge gap between the NUC parameters for funding and Federal government allocations to higher education. Two facts emerge from this table.
One is Nigeria’s paltry allocation to Education. The second is that, even by standard of African countries which share the same economic and social features with us, Nigeria scored lowest in her budget allocations to Education.

The re-launch of Universal Basic Education in 1999 was aimed at providing free universal basic education for all, to enable all citizens to acquire appropriate levels of literacy, numeracy, communicative, manipulative and life skills. The intention was to provide nine years of compulsory education that would span primary and secondary levels. Access to basic education as a national priority includes literacy and adult education, science and vocational training. To implement the scheme, government has established two committees as part of its strategy to ensure that the goal is achieved. The Coordinating Committee and the Technical Committee are to be headed by the Vice President and the Minister of Education respectively. The plans include public information and community mobilization, provision of resources and the setting up of mechanisms to facilitate implementation of the programs.

From 1999-2016 data gotten from Statistics of education budgets in Nigeria show how the federal government has been subsidizing the tertiary institution in Nigeria. Under the transformation agenda, Priority policies for the development of education include:

1) Promotion of primary enrolment of all children of school going age irrespective of the income profile of the parents
2) Provision of infrastructures such as classrooms across all levels of education to ease overcrowding, increase access, and reduction of pupils/teacher ratio
3) Enhancement of the efficiency, resourcefulness, and competence of teachers and other educational personnel through training, capacity building, and motivation

To actualize the goal of Transformation Agenda in the education sector, the Federal Ministry of Education drawn a 4-Year Strategic Plan (2011 – 2015) for the development of the sector. The plan has six (6) focal areas:

- Access and equity;
- Standard and quality assurance;
- Strengthening the institutional management of education;
- Teacher education and development;
- Technical and vocational education and training
- Funding, partnerships, resource mobilization and utilization (Jonathan, 2011)

In a bid to revamp the educational sector after the non-implementation of the 2009 agreement which brought in the 2012 strike in the universities, the Federal Government on January 2012 signed a memorandum of understanding (MoU) with ASUU and renewed its commitment and assurances to full implementation of the 2009 Agreement as articulated by Otobo (2009:27) are as follows:

i. Funding requirement in revitalizing the Nigeria universities: Government reaffirms its commitment to the revitalization of Nigerian universities through budgetary and no budgetary sources of funds. Government will immediately stimulate the process with the sum of N100 billion and will build this up to a yearly sum of N400 billion in the next three (3) years. These interventions will be based on identified prioritized needs.

ii. Federal government assistance to state school: The state universities shall continue to enjoy federal special and other statutory interventions.

iii. Progressive increase of annual budgetary allocation to education to 26% between 2009 and 2020 Government will improve significantly the budgetary allocation to education from
2013 to 2020.

iv. Earned Academic Allowances: Government accepts in principle the payment of Earned Academic Allowances (EAA). However, there is need to work out practical and sustainable ways to do this. Consequently, the mandate of the Implementation Monitoring Committee (IMC) has been expanded to include proposing practical and sustainable ways of paying the Earned Academic Allowances and the report is expected in 60 days. Government shall direct the universities to support internal staff development of all those not covered under Tertiary Education Trust Fund (TET) fund intervention on capacity building.

v. Amendment of the pension/retirement age of academics on the professorial cadre from 65 to 70 years As soon as the legislative procedures for the Bill on seventy years retirement age for academics at the professorial cadre are concluded, the president shall assent to it not later than the end of February 2012.

vi. Establishment of Pension Fund Administrator: Government directed the Implementation Monitoring Committee (IMC) to take all necessary steps to register Nigerian university pension management committee (NUPEMCO) within three (3) months. Where the IMC has difficulties, it should refer the matter to the Government for necessary action.

Vii. University Governing Council: Government undertakes to reinstate Governing Councils of various universities on or before February 12, 2012, but may make changes in external membership where it deems necessary. The tenure of the Councils thus reinstated ends in February 2013.

viii. Transfer of Federal Government landed property to universities: Universities shall form a University Property Holding Company, which shall among other things, participates in the acquisition, management, and concession of government properties.

ix. Setting up of research and development units by companies operating in Nigeria and teaching and research equipment Government will encourage companies operating in Nigeria to collaborate closely with Nigerian universities in setting up research and development units.

x. The Budget Monitoring Committee (BMC) Each council shall set up a Budget Monitoring Committee (BMC), which shall monitor the effective use of funds in each university. BMC shall through the Governing Council, send its report on project execution, budget performance, and financial discipline to the Implementation Monitoring Committee quarterly.

xi. Expansion of the implementing monitoring committee the implementing committee will be expanded to include one representative each of the ministry of finance, Ministry of National Planning and the Budget Office.

In order to ensure effective overall monitoring of the implementation of the FGN/ASUU agreement, Government shall meet with the expanded IMC on a quarterly basis to assess progress (Sobowale, 2009, ASUU, UNN Branch 2009, ASUU, UNN Branch, 2012, & ASUU, UNN Branch 2016).

Transport Sector

After Nigeria’s political independence, different regional and city governments began to establish public transport systems for developmental economic purposes. These include the Ibadan City Bus Service, the North Western State Transport Corporation (operating then as Kano Line), Kwara Line, and Plateau State Transport Corporations among others.
Unfortunately, most of these transport lines collapsed between the second half of 1970s and early 1980s due to mismanagement and fraud (Adeniji, 2002). However, from the mid-1980s, other government owned public transport companies were established in Lagos, Kaduna, Port Harcourt, Kwara, Rivers, Oyo, and Edo States. With the exception of Lagos State Transport Corporation (LSTC), these transport corporations also collapsed and were closed down completely as a result of corruption, financial impropriety, inadequate government financial support, lack of qualified staff, political interference, and uncontrolled competition from private transport operators (Adeneji, 2000). These State-Owned transport companies operate arbitrarily and increase transport fares without control or regulation (Daramola, 2003) in pursuit of greater profit, business expansion, and as a mechanism for paying back loans within the shortest period to avoid interest payment. According to Filani (2002) and Filani (2003), the consequences of the above-uncontrolled extortion, lack of enough vehicles to meet commuters demand, sub-standard and unorganized operational system led to:

1. Unprecedented socio-economic hardship on the citizens;
2. Steady decline in the level of motorization by 50 percent between 1990 and 1998 thereby causing acute shortage of transport services;
3. The use of used and discarded vehicles (a.k.a ‘tokumbo’) imported from Europe and America;
4. Environmental pollution; and
5. Perverse scourge of road traffic accident that have continued to claim hundreds of lives (Federal Republic of Nigeria, 1996).

Consequently, these problems led to an increase in demand for a new transport policy. The Federal Urban Mass Transit Programme (FUMTP) was established in January 1988 to address the socio-economic and mobility frustrations and hardships experienced by the citizens and communities across cities in Nigeria (Kontagora, 1988 & Ogbazi, 1989).

This intervention brought into being State-owned mass transit companies across the states of the federation a way of improving the public transport at these levels. FUMTP offered grant-aided facilities to the states in the form of maintenance; workshop equipment’s; mobile workshop and tools; traffic improvement measures. The Federal Government injected over 2000 Federal Assisted Buses into the public transport service network across the states. About 85% of those buses were given to the state-owned companies under concessionary loan conditions. The remaining 15% of the buses was distributed to Federal Colleges, Universities, and other Tertiary Institutions and specialized Agencies as grants (Filani, 2003 and Sunday Concord, 1989).

The public mass transit system was better organized, boost of better trained staff and maintenance facilities than most of the private sector operators. Their services are often provided on fixed routes, and their fares are relatively cheaper than those provided by private sector operators. They have service schedules, although in practice are rarely followed because of the inadequacy of vehicles, declining fleet utilization rates, growing competition from private operators, poor traffic management, and congestion especially during peak travel periods (Umar, 2003).

The success recorded by FUMTA and its challenges led to the emergence of another transportation policy in 1993 to strengthen the Mass Transit Programme. According to World Bank (1996), the general objectives of the new transport policy include: adequacy, economic and financial efficiency, safety, reliability and national self-reliance. However, its major pitfall was that there was no approved policy guideline, sanction, and deadline for its
implementation. Consequently, the NTP had little or no influence on the government’s actions in the transport industry.

In response to these challenges, the federal government articulated a new transport policy in its National Economic Empowerment Development Strategy (NEEDS) programme. The NEEDS transport policy envisaged a transport development strategy that is private sector driven with government guaranteed safe environment that addresses the issues of wealth creation, employment generation and poverty reduction (FGN, 2010).

Scholars like Aderemo(2004) and Afukaar (2001) noted that in spite of all these reforms, the prices of transport facilities, vehicles, and spare parts such as tires, tubes, fuel, and lubricants have continued to increase leading to some private public transport companies fizzling out while most of the government owned transport companies remained ‘a ghost’ of themselves.

According to Thisdayonline.com of August 9, 2012, government intervened in the transport industry by in 2012 after the anti-subsidy strike by releasing 1,600 mass transit buses [although only 1,100 buses were released] to strengthen the programme and ease mobility problems. The Federal Government, 36 state governments, 774 local governments, the Central Bank of Nigeria, and several commercial banks were involved in this new partnership. No technical or academic research work has evaluated the distribution of these buses, their impact on the declining mass transit services and the socio-economic problems caused by the fuel subsidy removal.

5. Recommendations

Based on the study’s findings, the study suggested the following recommendations:

- The Federal government policy of subsiding other sectors such as the transport, agriculture, housing, education and industries would add value to the lives of Nigerians. The Lagos state model of Public – Private Partnership (PPP) initiatives should serve as model.

- Savings from the excess crude account should and other government savings such as the Sovereign wealth fund should be used by the federal government for infrastructural development.

- The government must come up with policies that will compensate Nigerians developmentally and utilize the savings to checkmate inflation.

- The government should work on the regulatory agencies for effective service delivery where the rights of the citizens must be protected.

- The government at all levels should rebuild the people’s trust in its by: - cushioning the effects of the fuel subsidy removal, curbing the excesses of the three tiers of government, investigating and bringing to book all those corrupt officials/economic saboteurs/cabal that squandered the fuel subsidy and waiver largesse.

- The Economic and Financial Crimes Commission (EFCC) and other anti-corruption agencies should always be at alert and make sure those responsible for corruption, abuse of office and power and mis-management of fund are brought to book. They should be allowed full access to relevant government information to aid their work.

6. Conclusion

This paper summarised in a thematic form the subsidy regime between 1999 and 2014. The selected and focused areas include the agriculture, transport and education sectors and found out the benefits and challenges of the subsidy regime. The study suggested among other that the federal government should articulate good policy frameworks in these areas in order to address the gaps and challenges in these areas. They should equally bring to book those who
mis-manage the subsidies in the past to book. The paper, therefore concluded by positing that if the finding and recommendations that the researchers have brought out could be followed, we shall see a new dimension of subsidy policy affecting the masses positively.

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Impact of Board Characteristics, Audit Committee Characteristics And External Auditor on Disclosure Quality of Financial Reporting

Ali Thamer Nawafly
Al-Nahrain University, Iraq

Ali Saleh Alarussi
Xiamen University Malaysia, Malaysia, al_arussi@yahoo.com

Abstract

This study has been conducted to identify the factors that influence disclosure quality of financial reporting, it focuses on board characteristics, audit committee characteristics, and external audit to ensure financial reporting quality. Seven independent variables have been examined their significant relationships with the disclosure quality of financial reporting of companies in Malaysia. The independent variables are Board composition, Board size, Board expertise, Audit committee independence, Audit committee size, Audit committee expertise and External Auditor Characteristics. The study has taken a sample of 150 non-financial listed companies of Bursa Malaysia. It is across sectional study that use the data for companies’ annual report for 2014. The regression analysis SPSS is applied to examine the association between independent variables and dependent variable. The findings show that board characteristics, audit committee characteristics and Big Fours have all a significant and a positive impact over disclosure quality of financial reporting. This study besides contributed by supporting agency theory, provided a simplified framework that includes Big Fours as one of the determination of disclosure quality. Due to the time limitation, the data include only 150 companies listed in bursa Malaysia for year 2014. These results benefit internal users (such as mangers, board of directors and shareholders. They can realize the characteristics of board of directors and audit committee that enhance the disclosure quality of financial reporting. This is important especially after the depreciation of the Malaysian currency, hence restore the investors’ trust. On the other side, external users such as investors, creditors, new established companies, tax authority also may get advantages of these results. It is clear that those users care about solid information with high quality to make their decisions after the first currency’s depreciation. This study differs than previous studies in many ways: first, it focuses on non-financial listed companies in Malaysia. Previous studies have concentrated on companies in the financial sector, such as banking and financial institutions or on industrial organizations. Second, this study analyzes the data in companies’ annual reports for a one-year period which is 2014. Staring from 2014, the economy in Malaysia was fluctuating due to currency
depreciation by more than 17.5% by the end of 2014. Third, this study measures financial reporting disclosure quality by using a disclosure index, which different than other previous measurements such as earnings response coefficients, bid ask spreads, and audit report lag. Last but not least, this study provides an empirical support evidence for two theories which are agency theory and resource dependency theory.

**Keywords:** Board of directors, Audit committee, Big Four Audit, Disclosure quality of financial reporting, and Malaysia.

**Introduction**

Recent collapses of high profile businesses worldwide have captured great attention of investors, regulators, and academicians. The collapse of high-profiles corporate around the world has been rooted in weakness of the Corporate Governance (CG) and Audit Committee (AC) (Srinivasan, 2005). Disclosure quality of financial reporting is critically significant for the progress and development the investors ‘confidence. Firms with good quality of Financial Reporting (FR) experience significantly better share price performance (Penman, 2007). Disclosure quality is considered to be an important mechanism in reducing information irregularity between firm and investors (jiang, Habib, & Hu, 2011), and hence improve the disclosure quality transparency (Akhtaruddin & Haron, 2010). Researchers have also recognized that boards of directors are an important instrument for observing the performance of management and protecting the interests of shareholders and enhancing disclosure quality (Beasley M. S., 1996). According to agency theory another mechanism of corporate governance (CG) is the separation of the roles of the Chief Executive Officer (CEO) and Chairman Board (CB). Besides separation between the CEO and CB, Auditing Committee (AC) and external audit facilitate the decline in the agency costs and increase the disclosure quality (Beasley M. S., 1996). Other advocates of the separation between the two roles highlighted that cross checks regarding the performance of management through AC and external auditors will ensure quality in FR (Klein, 2002). In addition, AC size and board size are also hypothetically linked with the capability of directors to monitor and govern management (Carcello & Nagy, 2004), despite the fact that the there is an unclear direction. Along with board of directors and audit committee one of the major players of corporate governance is external auditor. Without the involvement of external auditors corporate frauds are near to impossible (Cadbury, 1992).

In Malaysia, many high-profile cases including corporations like Technology Resources Industries, FA Peninsular, Tat Sang, Time dotcom, and Malaysian Airlines have experienced the failure of CG (Hashim & Devi, 2008). Recently, market has been disappointed when Securities Commission (SC) Malaysia reprimanded the Mulph International Bhd’s Directors failing to disclose information in a 2010 prospectus in a full and true manner (Wind, 2012). Undoubtedly, the series of corporate scandals has shattered the trust of investors in financial markets (Ball, 2006). Regulators, professional bodies, and researchers on disclosure claim that economic crisis worldwide as well as financial scandals in some of the big Malaysian corporations are attributed to the reduction of disclosure quality of FR (Kirkpatrick, 2009). The presence of Malaysian code of CG 2002 has been revised in 2007, and again in 2012. The major changes were suggested in the areas of roles and responsibilities of the board to formalize ethical standards through a code of conduct. The composition of the board should include a Nominating Committee. The committee should be chaired by a senior independent director. Furthermore, independence of the independent directors was further stricken. All these initiatives and efforts reflect the government’s desire in developing and enhancing the Malaysian regulatory framework to reinforce the financial and capital market in Malaysia that could distinguish Malaysia from other countries.
With the latest code revision, it was expected that the disclosure quality of FR will improve however it fails to show a significant improvement in the quality of disclosure (Zahiruddin & Manab, 2013). Thus, there is an urgent requirement to enhance the quality of FR as the financial markets require clear and true accounting statements to analyze securities which will increase the confidence of investors. Empirically, AC with independent and capable members was found to be able to monitor the internal management disclosure process, leading to fewer internal control problems, more conservatism accounting, less earnings management, fewer incidents of FR fraud and more frequent and higher quality of reporting (Akhtaruddin & Haron, 2010; Beasley, 1996; Cohen, Hoitash, Krishnamoorthy, & Wright, 2014). Bédard and Gendron (2010) suggested further research to examine the level of AC independence and board characteristics to improve quality disclosure of FR. Besides, role of big four companies in bringing quality in the FR cannot be ignored. So this study intends to empirically answer the following question: what are the relationships between board characteristics, AC characteristics, and external auditor and the quality disclosure of FR after controlling firm size? In short, this paper empirically examines these factors namely board composition, board size, board expertise, audit committee independence, audit committee size, audit committee expertise and Big Four on the quality of FR after controlling Firm size. The remainder of this paper is structured as follows: Section 2 provides an overview of quality disclosure and reports a number of previous studies as well as presents the development of the hypotheses while the research method and measurements of variables are described in Section 3, Section 4 discusses the regression analysis results. Finally, section 5 presents the conclusion of this paper and recommendations for future research.

**Literature review and hypotheses development**

Studies on quality of Financial Reporting (FR) have seen a vast growth in the few last years. Currently researchers are paying a great attention towards the significance of AC and BOD for improving FR quality (McNeil, Frey & Embrechts, 2015). Disclosure quality of financial reporting means the fulfillment of disclosure requirements (Singhvi & Desai, 1971). Disclosure should be made appropriately in the financial statements, footnotes, and management discussion (Abbott, Daugherty, Parker, & Peters, 2015). Since financial information is critical in this regard. It becomes necessary to assess the extent to which quality reporting is done in preparing the financial statements (Chen, Hope, Li, & Wang, 2015). In the other hand, investors require information to gage the corporation for making their investment decisions (Johl, Kaur Johl, Subramaniam, & Cooper, 2013). Therefore, disclosure quality also assists companies in attracting new investors. Along with attracting new investors quality reporting maintains the demand of the company in the share market which ultimately keeps the share prices high (Dehaan, Hodge, & Shevlin, 2013). Quality reporting decreases information asymmetry between uninformed and informed investors (Goodman, Neamtiu, Shroff, & White, 2013). While using bid ask news as a proxy for the information asymmetry, García Lara, García Osma, and Penalva (2014) documented a negative relationship between analyst ratings regarding reporting of the firm and bid ask news.

Likewise, Armstrong, Guay, and Weber (2010) highlighted that firms usually enjoy low bid-ask spread after the continual increase reporting ratings by the analyst. Cheng, Liao, and Zhang (2013) found that companies that are committed to higher level of disclosure have relatively lower level of information asymmetry. Companies with better quality reporting enjoy low cost funding in the form of cheaper debt and cheaper equity cost (Albrinng, Huang, Pereira, & Xu, 2013). Corporate quality reporting is subject to managers’ discretion (Fifka, 2013) and management decides the decision regarding holding or disclosing information regarding trade-off between the associated proprietary costs of making such reports and the expected benefits of
informed investors (Gigler, Kanodia, Sapra, & Venugopalan, 2014). In short, the quality reporting literature revealed that there is a variety of disclosure information that has been discussed in prior study; Firth, Wong, Xin, and Yick (2014) classified reporting in their study with the financial, non-financial perspective and information on outlook, forward looking and historical data. Bertoni, Ferrer, and Martí (2013) analyzed the role of CG played by the Australian companies in the decision regarding disclosure of information in the published annual reports. Furthermore, some of the researchers have classified quality reporting into three types; financial information, strategic information and non-financial information (Martínez-Ferrero, Garcia-Sanchez, & Cuadrado-Ballesteros, 2015; Ismail & King, 2014; Mio & Venturelli, 2013). This study examines whether the board characteristics, AC characteristics, and external auditor quality are associated with FR disclosure quality.

Although there are a number of theories used to support disclosure quality, this study used only two theories which are agency theory and resource dependency theory as both the theories form the concept of responsibility that is used in the argument in this paper. Board composition and AC independence including the board size and AC size are the core factors of agency theory (Eisenhardt, 1989; Hill & Jones, 1992; Goodman, Neamtiu, Shroff, & White, 2013). Financial accounting expertise of BOD and AC are supported by resource dependency theory (Hillman & Dalziel, 2003; Ruigrok, Peck, & Tacheva, 2007; Cohen & Krishnamoorthy, 2014).

**Board composition**

Board composition is closely related to outside directors sitting in BOD of a company (Nyazeva, Knyazeva, & Masulis, 2013). It is argued that those independent directors who are free from the influence of the management and who do not have any direct interest in the company, are more effective at decision control (Yoshikawa, Zhu, & Wang, 2014). Concerning with transparency of FR, Balakrishnan, Billings, Kelly, and Ljungqvist (2014) argued that the number of independent non-executive directors in the board enhances the disclosure quality. Consistently, Daske & Gebhardt (2006) and Frias-Aceituno, Rodriguez-Ariza, and García-Sánchez (2014) reported a positive relationship among independence of directorate and FR disclosure quality of the company. Hambrick, Misangyi, and Park (2015) have shown that by increasing the number of outside directors the likelihood and chances of frauds can be minimized. Similarly, reported that outside directors are adversely related to accounting enforcement actions, indicating that board composed of outside directors is regarded as an important structure of CG for improving disclosure quality (Firth, Wong, Xin, and Yick, 2014). This is on the line with the resources dependency theory which states that outside directors’ networks, contacts, and connections confer access to necessary strategic resources and information (Ruigrok, Peck, & Tacheva, 2007) therefore enhance the disclosure quality. In contrary, Ismail and King (2014) reported an insignificant relation between independence of board and FR transparency of a company.

In the Malaysian context, Chen, Cheng, and Wang (2015) argued that there is a significant positive impact of Board composition over the earnings quality, proxied by the coefficients of earnings response. His results supported the effectiveness of independence of directorate as a control mechanism for provision of quality disclosure of FR. Al_arussi et al., (2009) found a positive relationship between non-executive directors in the board and the extent of internet disclosure by companies in Malaysia. Furthermore, Allegrini and Greco (2013) reported a significant linkage between high ratio of independent directors in the board and better quality of audit, proxied with audit fee, improves the disclosure quality. The findings of their study highlight the significance of independent board for better monitoring and improved FR disclosure. However, the findings of Hutchinson, Mack, and Plastow (2015) did not support the above studies and showed some contrary findings between independence of board and accounting issues. Further, Dehaan, Hodge and Shevlin (2013) has shown that higher ratio of
independent directors in the board appears to worsen audit lag. This study examines the impact of board composition on the quality disclosure of financial reporting. This variable is measured by the ratio of independent non-executive directors relative to the total directors in the board (Beasley, Carcello, Hermanson, & Neal, 2009; Alzoubi, 2012). Based on the above arguments, the first proposed hypothesis is as follows:

H1: There is a positive relationship between Board composition and financial reporting disclosure quality.

According to agency theory, the basic mechanisms to minimize agency cost are more disclosure and appropriate independent board (Fernando, 2009). Empirical findings show that the board size does matter because it impacts monitoring, controlling and decision making in the company (Zona, Zattoni, & Minichilli, 2013). McDonald and Westphal (2013) argued that larger boards are capable of giving more time and efforts to check the management actions and vice versa. However, there is no consensus in the literature about board size; whether a large number or a smaller board is better. It is argued that the ideal board size if between seven to eight (Cheng, 2008), because such a board can act effectively and efficiently. This is because a small group can easily reach a conclusion (Balakrishnan, Billings, Kelly, & Ljungqvist, 2014). Hutchinson, Mack, and Plastow (2015) argued that the benefit of higher level monitoring by a huge board may be nullified because of poor decision making by a large board, because of controversies.

In Malaysia, the average number of directors in the boards of companies is eight (Tong, 2014; Ghazali, 2014). Therefore, the size of the board cannot be ignored because the boards of directors are key for the independent and free of influence decisions (Allegrini & Greco, 2013), and only effective an independent board with an appropriate size can enhance the disclosure quality (Hashim & Devi, 2008). This variable is measured by the total number of directors on the board of the company (Beasley M. S., 1996; Byard, Li, & Weintrop, 2006; Cheng S., 2008; Alzoubi, 2012). Therefore, the second proposed hypothesis is as follows:

H2: There is a relationship between board size and financial reporting disclosure quality.

Role of board for acting as advisor to the CEO is necessary to enhance value of the organization (Kirkpatrick, 2009). Both internal and external directors should use their expertise and experience to improve FR disclosure quality. This is important for the easy provision of access to finance the company (O’Connor, Priem, Coombs, & Gilley, 2006). Resources dependency theory guides that performance of the company is not only dependent on the abilities of the management of the company to efficiently manage the resources but also on the capacity of the members to save these resources (Hillman & Dalziel, 2003). Dehaan, Hodge and Shevlin (2013) argued that the board must have the ability to ask serious questions regarding the actions of management including the areas of risk management, corporate strategy, succession plans of CEO and the questions about meeting the targets for financial and strategic objectives. This is only possible when the board has vital expertise to full all their discussed liabilities. In other words, the expertise of BOD has a significant role in discharging their duties over FR process (Akhtaruddin & Haron, 2010). This variable is measured based on the total number of past years’ experience (Xie, Davidson, & DaDalt, 2003; Cormier, Magnan, & Velthoven, 2005). Therefore, the third proposed hypothesis is as follows:

H3: There is a positive relationship between board experience and financial reporting disclosure quality.
Audit committee independence

Independent AC is considered as a key factor which has the capability for the improvement of efficiency of the AC (Carcello, Hermanson, & Ye, 2011). Importance of independent directors in the AC has always been forced to authenticate the monitoring and controlling of corporate management due to their opportunistic behavior (Armstrong, Guay, & Weber, 2010). Independent directors are stricter in discharging their responsibilities, and are in a better position to control and face complex situations, because their affiliation is not direct with the management of the company (Brandes, Dharwadkar, & Suh, 2015), as well as the provision of disclosure quality of financial statements (García Lara, García Osma, & Penalva, 2014; Chen, Hope, Li, & Wang, 2015). Based on agency theory, audit committee is considered as an important component for controlling the decisions of the management (Goodman, Neamtiu, Shroff, & White, 2013).

In Malaysia, the president of Malaysian Institute of Accountant (MIA), Abdul Rahim, has cited the need for an effective AC. Similar to the argument by Federal Committee on Corporate Governance (FCCG) (1999); highlighted the institute notes with concern that despite legislative support for the establishment of AC, several listed companies are unable to develop independent AC, and therefore, cannot discharge their responsibilities (Akhtaruddin & Haron, 2010). In this study, this variable is measured by the ratio of independent non-executive members relative to the total members in the committee (Be’lard, Chtourou, & Courteau, 2004). Based on the above argument, the forth proposed hypothesis is as follows:

H₄: There is a positive relationship between audit committee independence and financial reporting disclosure quality.

Audit committee size

When more directors are added in the audit committee (AC), it ensures that more knowledge and skills act as resources for monitoring the disclosure quality (Yap & Foo, 2012). In addition, potential issues regarding disclosure in corporate reporting are revealed because of higher number of members in the AC (Mohd Ghazali, 2014). Contrary to this Deumes and Knechel (2008) argued that the AC is an expensive monitoring mechanism and many companies are not willing to bear these expenses, especially those with high agency costs. Companies with fewer members in the AC, in average, devote less time to oversee the appointment of auditor, arguing with management and meeting with the people involved in internal controls.

Generally, the benefit of having many members in the AC may outweigh the exceeded cost required for communication and decision making which is linked with large AC (Beasley, Carcello, Hermanson, & Neal, 2009). Large AC may become ineffective or less influential because of the fact that coordination and processes becomes complex (He, Labelle, Piot, & Thornton, 2009). Therefore, Beasley, Carcello, Hermanson, and Neal (2009) highlighted the importance of optimal number of directors in the AC, he further endorses that seven to eight members are enough.

In Malaysia, it was argued that the importance of expertise in the AC can be gained with the position of director in other companies (Ismail, Iskandar, and Rahmat, 2008). It has been suggested that the effectiveness of the AC is depending on the appropriate size of the AC (Felo, Krishnamurthy, & Solieri, 2003; Rahman & Ali, 2006). This study intends to examine the impact of audit size on the disclosure quality in Malaysia. This variable is measured by the total numbers of directors in the AC (Bhasin, 2013). Therefore, based on the above arguments the fifth proposed hypothesis is as follows:

H₅: There is a relationship between audit committee size and financial reporting disclosure quality.
Audit committee expertise

It has been argued that AC members need to have sufficient understanding of accounting and finance (i.e., have financial literacy) to perform effective monitoring for the integrity of company’s FR process and its disclosure practices (Xie, Davidson, & DaDalt, 2003). AC effectiveness is depending on the AC expertise. It improves their monitoring role for overseeing the disclosure quality (He, Labelle, Piot, & Thornton, 2009). AC members typically have responsibility for oversight over FR process as well as corporate disclosures practices (Klein, 2002; Felo, Krishnamurthy, & Solieri, 2003). Theoretically speaking, experience of AC in general and financial accounting expertise in particular, plays a vital role in mitigating agency costs. AC accounting experts provide such committee with an effective means of monitoring management’s FR practices and reducing agency costs (Azmi, Samat, Zakaria, & Yusof, 2013).

In Malaysia, Mohd Ghazali (2014) reported that AC with accounting or related financial management directors has no impact on audit report lag. Even though the FCCG (1999) noted that the public listed companies in Malaysia have successfully complied with the requirement of establishing an AC, the quality of the members within such committee is questionable. The results of previous studies showed that AC expertise is an essential factor in promoting AC effectiveness as well as to provide disclosure quality of FR. The current study is concerning about audit committee expertise and measures it by the total number of members that have the experience and knowledge of financial audit and financial accounting (Cohen & Krishnamoorthy, 2014). Therefore, based on the above discussion, the sixth proposed hypothesis is as follows:

H6: There is a positive relationship between audit committee expertise and financial reporting disclosure quality.

External Auditor Characteristics

Several researchers have argued that the brand name of auditor and the size of audit firms tend to have better strength of monitoring which enables the auditor to produce quality and credible information in the FR (Carcello & Nagy, 2004; Cheng, Liao, & Zhang, 2013). On the other hand, it has been observed that investors respond positively to the decision of the company regarding changing its auditor from large firm to small firm (Scarborough, Rama, & Raghunandan, 1998). Detection of material misstatement is dependent on the expertise of auditor, but the misstatement disclosure is the function of independence of auditor (Xie, Davidson, & DaDalt, 2003). Level of independence varies across different audit firms. Small firms usually do not disclose material misstatements for retention of the client and relationship with the client (Spira, 1999). On the other hand, for large audit firms’ reputation is more importance than retaining a client, so they cannot sacrifice independence and integrity. A hypothesis testing the relation between reputation and Big Four proved that previous clients of big audit firms involved in lesser earnings, whereas earnings are measured by cross sectional (Rahman & Ali, 2006).

From the theoretical perspective, resource dependent theory proposed that AC with a resource-dependent focus evinced through industry expertise, experience, reputation, and networking of the members may positively enhance AC effectiveness (Cohen & Krishnamoorthy, 2014). The efficient AC always chooses the quality auditors as Big Four. In this regard, first important point for Big Four who are good among external auditors, the reputation is the main concern for the large audit firms; these audit company characteristics enforce companies to avoid the coercive decisions (Penman, 2007). Second the large audit firm has more resources compare to small firm such as the financial resource to invest in the technology and training to their staff for the efficiency (SMSF Adviser, 2014). Third litigation risk and lawsuits expectancy also have been the factors that provide higher quality of audit from the large audit firms.
The foremost important aspect which cannot be ignored is Big Four; if the audit is being conducted by the big firms then it is considered that financial reports have been developed in accordance with the international standards and show the true and fair view of the company (DeAngelo, 1981; Carcello & Nagy, 2004; Ismail, Iskandar, & Rahmat, 2008). This variable is a dummy variable and measured by “1” if company is audited by “big 4” or “0” otherwise (Rahman & Ali, 2006). These big four companies are; PricewaterhouseCoopers (PwC), Deloitte, Ernst & Young (EY) and KPMG. Therefore, the seventh proposed hypothesis is formulated as follows:

\[ H_7: \text{There is a positive relationship between external auditor and financial reporting disclosure quality.} \]

Research Methodology

In order to meet the overall research question, this study adopted a quantitative research methodology. A sample of Top150 firms (by market capitalization) listed on the Main market of Bursa Malaysia for the year 2014 was selected. This year is selected because starting from 2014, the economy in Malaysia was fluctuating due to currency depreciation by more than 17.5% by the end of 2014 which is negatively affecting the investment in companies in Malaysia. Secondary sources are used to collect the data for this research. Mainly the annual reports of the companies have been viewed. In the annual report, data related to the directors’ report, directors' profile, CEO report, statement of CG, statement of directors’ shareholdings, the financial statements, and notes to the accounts were scrutinized. Board characteristics, AC characteristics, and external auditor represented by the big four have been taken as independent variables. In this study, disclosure quality of financial reporting is measured by A disclosure index of 12 items on the basis of (Abdullah, Evans, Fraser, & Tsalavoutas, 2015) is used in this study in order to measure the extent of disclosure quality, particularly in companies’ annual reports. An un-weighted approach is applied, whereby a company is awarded 3 if all items that should be disclosed have been disclosed (12 items), 2 if more than 8 (out of 12 items) are disclosed, and 1 if only 8 items or less have not been disclosed. Thus, after assigning values the sum was calculated and then if the sum was less than 8 then 1 was assigned if more than 8 then 2 and if any company was following all of the 12 standards than 3 were assigned to that company (Abdullah, Evans, Fraser, & Tsalavoutas, 2015). According to Abdullah, Evans, Fraser and Tsalavoutas (2015) the eight standards are most important in showing transparency in the financial statements, and twelve standards show enough disclosure which ensures quality of financial statements. If any company is not showing the minimum of eight standards which are prescribed above, it means that the company is not disclosing their actual issues (See Table IV).

The literature has shown that firm size influences the reporting quality. This is because the big companies have a big audit committee as they have more resources to afford such costs for the improvement of FR. Big companies are supposed to prepare quality reports as they are more visible to the investor and require outside capital (Craven & Marston, 1999). Therefore, it is expected that disclosure quality, board characteristics, AC characteristics, and Big Four may be positively associated with firm size. In short, to test the hypotheses, all data will be analyzed using the SPSS version 20.0, a multiple regression analysis is utilized to analyze the data for this study and this method is in tandem with the previous studies (e.g. Camfferman and Cooke, 2002; Gul and Leung, 2004; Laswad et al., 2005; Al_arussi et al., 2011). In short, the proposed equation is as follows:
FRDQ = $a + \beta_1 BC + \beta_2 BS + \beta_3 BE + \beta_4 ACI + \beta_5 ACS + \beta_6 ACE + \beta_7 BF + \beta_8 FS + \varepsilon$

Which:
- FRDQ: Financial Reporting Disclosure Quality
- BC: Board Composition
- BS: Board Size
- BE: Board Expertise
- ACI: Audit Committee Independence
- ACS: Audit Committee Size
- ACE: Audit Committee Expertise
- BF: Big Four
- FS: Firm size
- $\alpha_0$: constant
- $\varepsilon$: error term

**Data Analysis**

**Descriptive Statistics**

The first analyzing of data is the descriptive analysis which mostly represents frequency distributions, in other words, it represents the frequency of incidence of each score value. For checking the normality of the data, another important measure that is commonly used in Skewness and kurtosis. The acceptable threshold statistical values (Z) for Skewness is less than three and for Kurtosis the value should be less than eight (Hair, Black, Babin & Anderson, 2010). Based on the values of Skewness and kurtosis for all the variables in Table I, the variable seems to be normal for further analysis.

<table>
<thead>
<tr>
<th>Table I Skewness and Kurtosis</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Skewness Statistic</th>
<th>Kurtosis Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Reporting Disclosure Quality</td>
<td>150</td>
<td>-0.010</td>
<td>-0.993</td>
</tr>
<tr>
<td>Board Composition</td>
<td>150</td>
<td>0.786</td>
<td>0.486</td>
</tr>
<tr>
<td>Board Size</td>
<td>150</td>
<td>0.564</td>
<td>0.151</td>
</tr>
<tr>
<td>Board Experience</td>
<td>150</td>
<td>0.795</td>
<td>0.845</td>
</tr>
<tr>
<td>Audit Committee Independence</td>
<td>150</td>
<td>-0.560</td>
<td>-0.575</td>
</tr>
<tr>
<td>Audit Committee Size</td>
<td>150</td>
<td>1.634</td>
<td>2.279</td>
</tr>
<tr>
<td>Audit Committee Experience</td>
<td>150</td>
<td>0.402</td>
<td>0.466</td>
</tr>
<tr>
<td>Large Audit Firms</td>
<td>150</td>
<td>-1.414</td>
<td>-0.002</td>
</tr>
<tr>
<td>Firm Size</td>
<td>150</td>
<td>1.214</td>
<td>2.645</td>
</tr>
</tbody>
</table>

All the values calculated above are in the threshold levels. Thus, there is no harm in saying that the data is quite normal and is ready for further analysis. For further screening and checking the normality of the data diagnostic tests for checking the issue of multicollinearity have been applied. In addition, if the outcome of the multicollinearity is high then one of the variables has to be deleted (Hair, Black, Babin & Anderson, 2010). A popular method of multicollinearity detection and measurement utilizes VIF and tolerance to determine the influence of a study’s independent variable (Mansfield & Helms, 1982). The acceptable threshold level refers to tolerance value greater than 0.10 and VIF value less than 10 (Cornell, 1987; Silver, 1997). According to the table II, it is discovered that all correlation between independent variables are less than 10.
Table II Tolerance and Variable Inflation Factor

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.691</td>
<td>1.447</td>
</tr>
<tr>
<td></td>
<td>Board Composition</td>
<td>0.622</td>
<td>1.607</td>
</tr>
<tr>
<td></td>
<td>Board Size</td>
<td>0.710</td>
<td>1.408</td>
</tr>
<tr>
<td></td>
<td>Board experience</td>
<td>0.733</td>
<td>1.364</td>
</tr>
<tr>
<td></td>
<td>Audit Committee Independence</td>
<td>0.648</td>
<td>1.542</td>
</tr>
<tr>
<td></td>
<td>Audit Committee Size</td>
<td>0.706</td>
<td>1.417</td>
</tr>
<tr>
<td></td>
<td>Audit committee experience</td>
<td>0.825</td>
<td>1.081</td>
</tr>
<tr>
<td></td>
<td>Large Audit Firms</td>
<td>0.882</td>
<td>1.134</td>
</tr>
<tr>
<td></td>
<td>Firm Size</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Correlation Analysis

Correlation analysis is used to examine the degree of mutual linear association among variables involved in the analysis (Hair, Black, Babin, & Anderson, 2010). The value of the correlation coefficient lies between minus one and plus one. Table III discloses the values of the coefficient of correlation among board characteristics, AC characteristics, external auditor, and FR disclosure quality. If the value of correlation coefficient exceeds 0.90 among the variables, it indicates the occurrence of multicollinearity (Mansfield & Helms, 1982).

Table III Cross Correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>FRQ</th>
<th>BC</th>
<th>BS</th>
<th>BE</th>
<th>ACI</th>
<th>ACS</th>
<th>ACE</th>
<th>LAF</th>
<th>FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRQ</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BC</td>
<td>-0.003*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS</td>
<td>0.485**</td>
<td>-0.204*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BE</td>
<td>0.279**</td>
<td>0.030</td>
<td>-0.153</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACI</td>
<td>0.246**</td>
<td>0.335**</td>
<td>0.026</td>
<td>0.130</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACS</td>
<td>0.322**</td>
<td>0.167*</td>
<td>0.402**</td>
<td>0.055</td>
<td>-0.152</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACE</td>
<td>0.185*</td>
<td>-0.078</td>
<td>-0.141</td>
<td>0.465**</td>
<td>0.149</td>
<td>-0.213**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAF</td>
<td>0.268**</td>
<td>-0.003</td>
<td>0.210*</td>
<td>0.034</td>
<td>0.086</td>
<td>-0.109</td>
<td>-0.092</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FS</td>
<td>0.791**</td>
<td>0.076</td>
<td>0.245**</td>
<td>-0.029</td>
<td>-0.100</td>
<td>0.166*</td>
<td>-0.131</td>
<td>0.143</td>
<td>1</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Majority of these values of coefficient of correlations have relationships but these relationships are not that much strong where one variable need to be deleted. Some of the correlations are significant at 0.05 % level of significance (Rodgers & Nicewander, 1988) where few are significant at 0.01 % level of significance (Rodgers & Nicewander, 1988), however, few correlations are insignificant.

Results and discussion

Assumptions of multiple regressions, i.e. normality and multicollinearity have already been analyzed which shows that the data is suitable for analysis. After having the surety that the data is suitable for analysis the multiple regression analysis was conducted. Table V shows the outcomes that are measured by R² and this denotes the effect of independent variables over the dependent variable. According to the R² of 45.5%, it can be ensured that above 40% of the relationship with FR disclosure quality can be determined by the seven independent variables while the remaining impact over disclosure quality is determined by other factors. To further strengthen the analysis, the value of Durbin Watson has been calculated. The threshold level for Durbin Watson is that the value should be in between 1.5 to 2.5; these ranges suggested absence of autocorrelation (Fomby & Guilkey, 1978). Calculated value of Durbin Watson is 2.114 which show that the model is acceptable (Hill & Flack, 1987).
The following section explains the results of the regression analysis regarding the proposed hypotheses.

**Board composition**

Based on Table V, FR disclosure quality is not influenced by board composition as it has shown an insignificant negative relationship as depicted by the beta value which is -0.002 and t value which is -0.022. Therefore, the first hypothesis is rejected. The findings are consistent with Bhagat and Bolton (2008). The basic reason behind this insignificant relation is that higher ratio of independent directors in the board appears to worsen audit lag (Dehaan, Hodge, & Shevlin, 2013).

**Board size**

Table V shows that FR disclosure quality is influenced by board size as it has a significant positive relationship as shown by beta value of 0.438 and t value of 5.532. The results of the study are in association with the findings conducted by Cohen, Krishnamoorthy and Wright (2004) and Al_arussi et al., (2009). In the case of Malaysia, it appears that more No of expertise members in the board help company to enhance its disclosure quality of financial reporting. Therefore, the second hypothesis is accepted.

**Board expertise**

Based on the finding in Table V, FR quality is influenced by board expertise and has a significant positive relationship as shown by beta value β i.e. 0.231 and t value i.e. 3.118. The findings are in support of studies conducted by Be´dard, Chtourou and Courteau (2004). This result highlights the importance of qualification and experience in the function of board of directors. Therefore, the third hypothesis is accepted.

**Audit Committee independence**

Table V shows that FR disclosure quality is influenced by AC independence as it has a significant positive relationship with FR quality because the beta value is 0.194 and t value is 2.664. The findings of the study are in accordance with the findings of Be´dard, Chtourou and Courteau (2004). Therefore, it is clear that more independent directors enhance the independency of AC and ultimately improve the disclosure quality of financial statements.
(García Lara, García Osma, & Penalva, 2014; Chen, Hope, Li, & Wang, 2015). In short, the forth hypothesis is accepted.

Audit Committee Size

Based on Table V this study endorsed that FR disclosure quality is influenced by AC size and it has a significant positive relationship with FR disclosure quality, the beta value of the variable is 0.184 and t value is 2.378. The results of the study are in consistent with Felo, Krishnamurthy and Solieri (2003). The results confirm that the effectiveness of the AC is depending on the appropriate size of the AC (Felo, Krishnamurthy, & Solieri, 2003; Rahman & Ali, 2006), therefore, the fifth hypothesis is accepted.

Audit Committee experience

Based on Table V this study has an opinion that FR disclosure quality is influenced by AC experience and has a significant positive relationship with disclosure quality as shown by the beta value of 0.160 and t value of 2.159. The findings are consistent with Be’dard, Chtourou and Courteau (2004) as AC expertise is an essential factor in promoting AC effectiveness and enhancing disclosure quality of FR. Hence, the sixth hypothesis is accepted.

Big Audit Firm

Based on Table V this study has an opinion that disclosure quality is influenced by large audit firm and has a significant relationship with FR disclosure quality as shown by the beta value of 0.149 and t value of 2.299. The findings are consistent with the results of DeAngelo (1981) and AL_arussi et al., (2009). So, based on these results, if the audit is being conducted by the big firms then it is considered that financial reports have been developed in accordance with the international standards and show the true and fair view of the company (DeAngelo, 1981; Carcello & Nagy, 2004; Ismail, Iskandar, & Rahmat, 2008), in other words, the disclosure quality of Financial reporting will be high. Therefore, the seventh hypothesis is accepted.

For control variable (firm size), it has been observed that it is showing a positive and significant relationship, as the big companies are under the public eye and observations, and this clearly shows a significant positive controlling effect over the disclosure quality.

Conclusion and Implications of study

This study examines the factors that may influence FR disclosure quality. The study focuses on board characteristics, audit committee characteristics, and external audit to ensure disclosure quality. The study has taken a sample of 150 non-financial listed companies of Bursa Malaysia. The regression analysis is applied to examine the association between independent variables and dependent variable. The findings of the research show that board characteristics, audit committee characteristics and Big Fours have a significant positive impact over disclosure quality of financial reporting. The results of this study surely provide numerous insights that may be of great interests for the scholars, government, shareholders, and policy makers. This study has theoretical and practical implications as it is supported by two theories and further expands the horizon of agency theory and resource dependency theory. For practitioners, the study provided the most influential and common factors that may enhance the disclosure quality of financial reporting.

Limitation and Future Research

Along with different contributions of this study, there are several limitations attached with it. The present study tested the effect of few selected factors on disclosure quality. Likewise, the measurement of FR quality has been made on only one method. Furthermore, the study does
not focus on any specific industry and chose 150 companies from different sectors. Another limitation is that the research focused only on non-financial firms and excluded other financial institutions. The study used cross-sectional data; all the values were extracted from the financial statements of the financial years 2014 only due to the time and cost limitations.

Future studies may apply the same model in different geographical portions to see the difference with FR disclosure quality. Therefore, it is suggested that same methodology can be used by future studies for other countries where this relationship has not yet been tested. The basic reason behind this suggestion is that countries differ in environment, cultures, education, policies, legal systems etc.

Table IV Dependent variable Measurements

<table>
<thead>
<tr>
<th>No.</th>
<th>Standards</th>
<th>Name of reporting Standard</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MFRS2</td>
<td>Share Based Payment</td>
<td>Equal '1' if the company follows this standard and '0' otherwise.</td>
</tr>
<tr>
<td>2</td>
<td>MFRS3</td>
<td>Business Combinations</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>3</td>
<td>MFRS 5</td>
<td>Non-current Assets held for Sale and Discontinued Operations</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>4</td>
<td>MFRS 117</td>
<td>Leases</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>5</td>
<td>MFRS 132</td>
<td>Financial Instruments: Disclosure and Presentation</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>6</td>
<td>MFRS 136</td>
<td>Impairment of Assets</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>7</td>
<td>MFRS 138</td>
<td>Intangible Assets</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>8</td>
<td>MFRS 140</td>
<td>Investment Property</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>9</td>
<td>MFRS 101</td>
<td>Presentation of Financial Statements</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>10</td>
<td>MFRS 114</td>
<td>Segmental Reporting</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>11</td>
<td>MFRS 116</td>
<td>Property, Plant and Equipment</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
<tr>
<td>12</td>
<td>MFRS 119</td>
<td>Employee Benefits</td>
<td>Equal '1' if the company follow this standard and '0' otherwise.</td>
</tr>
</tbody>
</table>
References


Free Trade Zones: A Strategic Evaluation of Nigeria Success (Failure) Story

Ifeoma Betty Ezike
Monetary Policy Department, Central Bank of Nigeria

Angela Ifeanyi Ukemenam
Department of Banking and Finance, University of Nigeria, Enugu Campus,
angela.ukemenam@gmail.com

Ikenna Franklin Chijioke
Ikenna Frankline Chijioke, Ph.D Niger Delta Development Commission, Owerri, Imo State, officeikedivine@yahoo.com

Abstract

This paper represents a strategic evaluation of the performance of free trade zones in Nigeria. The paper used Krugman (1991) and Bergsten (1991) analysis on free trade zone to lay the theoretical argument for and against free trade zone. The study also reviewed Nigeria’s free trade regulatory framework and environment. The strategic evaluation of the performance of free trade zones in Nigeria, using anecdotal evidence revealed that the free trade zones have not achieved the objectives for which they were established. Based on the findings, the paper made far-reaching recommendations on strategic to rejig the free trade zones, in order to ensure that they function optimally, in line with the developmental objective of Nigeria.

Keywords: Free Trade Zones, Strategic Evaluation, Nigeria

1. Introduction

According to Miyagiwa (1986), the origin of free-trade zones (FTZs) dates back at least to the days of Alexander the Great. After laying siege to the Phoenician Island fortress of Tyre, Alexander granted protection to the merchants there and as a result, Tyre prospered by attracting trade from the rest of the world. While it may seem as if FTZs have an extensive history, it is only within the last decade that they have begun to play a prominent role in international trade. Today some 70 countries around the world operate a total of about 400 FTZs, mostly in less developed countries (LDCs).

The oldest known free port established expressly to promote trade was the Roman Free Port on the Aegian Island of Delos, which acted as a custom free centre promoting trade between
Egypt, Greece, Syria, North Africa, Asia and Rome. This is followed by Geneoa, Venice and Gibraltar. The true forerunner of the FTZ was the free port of Hamburg, established in 1888. It was granted special privilege of manufacturing, on the condition that it would stay export-oriented.

The world’s first Free Trade Zone was established in Shannon, Ireland (Shannon Free Zone). This was an attempt by the Irish Government to promote employment within a rural area, make use of a small regional airport and generate revenue for the Irish economy. It was hugely successful, and is still in operation today. The number of worldwide free-trade zones proliferated in the late 20th century. Free trade zones in Latin America date back to the early decades of the 20th century. The first free trade regulations in this region were enacted in Argentina and Uruguay in the 1920s. The Latin American Free Trade Association (LAFTA) was created in the 1960 Treaty of Montevideo by Argentina, Brazil, Chile, Mexico, Paraguay, Peru, and Uruguay. However, the rapid development of free trade zones across the region dates from the late 1960s and the early 1970s. Latin American Integration Association is a Latin American trade integration association, based in Montevideo.

In the United States free-trade zones were first authorized in 1934 through the US (Foreign Trade Zones Act of 1934). Corporations setting up in a zone may be given tax breaks as an incentive. Usually, these zones are set up in underdeveloped parts of the host country; the rationale is that the zones will attract employers and thus reduce poverty and unemployment, and stimulate the area’s economy. These zones are often used by multinational corporations to set up factories to produce goods (such as clothing or shoes).

2. Conceptual Issues

Any area known as FTZ is but a latter development of the age-old concept of free port. Other well-known synonyms of FTZ are Investment Promotion Zone (IPZ); and Export Promotion Process Zone (EPZ). However, too often, FTZ are commonly mistaken for Free Trade Area (FTA). An FTA is nothing but an area formed by reciprocal multilateral agreements limiting or eliminating custom duties on trade among its members. Examples are European Free Trade Area and Latin American Free Trade Area. There is also a misconception between FTZs and Free Port (FP). Though, FTZs are closer to ports, it is not the same as FPs. A FP would merely function as a Trans-shipment Centre or a bonded warehouse facilitating international trade.

A free trade zone (FTZ) is a specific class of special economic zone. They are a geographic area where goods may be landed, handled, manufactured or reconfigured, and re-exported without the intervention of the customs authorities. Only when the goods are moved to consumers within the country in which the zone is located do they become subject to the prevailing customs duties. Free-trade zones are organized around major seaports, international airports, and national frontiers—areas with many geographic advantages for trade.

2.1 Difference with Export Process Zone

An Export processing zone (EPZ) is a specific type of FTZ, set up generally in developing countries by their governments to promote industrial and commercial exports. Most FTZs located in developing countries: Brazil, Colombia, India, Indonesia, El Salvador, China, the Philippines, Malaysia, Bangladesh, Pakistan, Mexico, Costa Rica, Honduras, Guatemala, Kenya, Sri Lanka, Mauritius and Madagascar have EPZ programs. In 1997, 93 countries had set up export processing zones employing 22.5 million people, and five years later, in 2003, EPZs in 116 countries employed 43 million people. China has specific rules differentiating an EPZ from a FTZ. For example, 70% of goods in EPZs must be exported, but there is no such quota for FTZs.
2.2 Features of FTZs

Though the actual policies governing FTZs differ in detail among countries, there exists a set of common characteristics which they share. First, the commodities produced in FTZs are export-oriented. In fact most of them are directly exported without ever entering the domestic markets. For example, the Malaysian government requires that at least 80 percent of zone manufactured goods be exported, whereas in Taiwan the export requirement ratio is 100 percent.

Second, the exports from FTZs are typically non-traditional manufactured goods, e.g. the Santa Cruz Electronics Export Processing Zone in India is specialized in electronic products. Third, the firms located inside FTZs receive a variety of incentives from the government not accorded to the firms outside. These incentives are direct and indirect export subsidies including tariff rebates on intermediate goods, reduced taxes, absence of labor union activity, and freedom for foreign firms to remit profits overseas.

Fourth, in order to increase employment, LDC governments generally prefer the zone based firms to be relatively labor-intensive. For instance, no firms are permitted to operate in the Kaohsiung Export Processing Zone of Taiwan unless their labor costs exceed 20 percent of the total costs. It is a region where a group of countries has agreed to reduce or eliminate trade barriers. Free trade zones can also be defined as labor-intensive manufacturing centers that involve the import of raw materials or components and the export of factory products.

3. The Great Debate on Factors that Influenced FTZs

There are at least two reasons for the popularity of FTZs in developing countries. The first is that by exempting foreign firms from the tariffs on imported intermediate goods and raw materials which domestic firms must pay, FTZs can serve as an inducement to attract much needed foreign capital to stimulate employment and growth. The second reason for utilizing FTZs is political. FTZs represent only a partial reform of the protectionist policies prevalent in the 50s and 60s and hence are politically more acceptable to the policymakers of developing countries than a complete liberalization of the policies, since that is likely to elicit much stronger objections from all vested interests. This section focuses on the latter, while the benefits will be discussed in section (3.1).

General Agreement on Tariffs and Trade (GATT) which was signed by in 1947 by 23 nations in Geneva, with the purpose of substantially reducing tariffs and other barriers and the elimination of preferences, on a reciprocal and mutually advantageous basis, was a major move to liberalise global trade. With the establishment of World Trade Organisation by 123 nations under the Uruguay Round Agreement in April 1994, the GATT was jettisoned, though; WTO still contains the essential ingredients of GATT. There is a current debate on the desirability of FTZs compare to free global trade. What has emerged from the debate could be summarized as follows:

Three Central Strands of Paul Krugman (1991) Analysis of FTZs

- That they are considerably better in practice than in theory;
- That this is the practice when they are viewed as alternatives to multilateral trade liberalization because half a loaf is better than none;
- Which is how they should be viewed because of the demise of the GATT and the poor prospects of the Uruguay Round (UR)
Bergsten (1991) views are fundamentally different from Krugman

- That FTZs are considerably less desirable than Krugman suggests, especially in practice;
- That this is particularly true if they are seen as alternatives to an effective global trading system;
- But that, fortunately, they need not be seen as alternatives because the UR is quite likely to succeed, thereby restoring the credibility and central role of the GATT, as complements to such a global system, is acceptable and even desirable.

3.1 Advantages and Disadvantages of FTZs Using Global Trade Theorem

In their views, free trade zone are not necessarily a good thing economically, because they may leads to trade diversion rather than trade creation. In the highly imperfect politics of international trade, regional free trade zones could upset the balance of forces that allowed the creation of a fairly liberal world trading system. However, it is thriving because of the inability of world leaders to liberalise trade globally.

In Krugman’s view, FTZs are bad in theory but good in practice. He indicated that free zones are bad because they potentially divert trade from low cost to high cost suppliers. Trade diversion occurs when a member of a free trade zone imports a good or service from a country inside its zone rather than from a lower cost, non-member country. He also indicated FTZs can harm non-member countries, not only by reducing the demand for the exports, but also by reducing the relative prices of their exported products. The decline in prices in non-member countries relative to prices in member countries – a “beggar-thy-neighbour” effect – reduces non-member country welfare. Additionally, he held that trade zones potentially impede trade by promoting trade warfare.

Krugman however argued that, in practice, free trade zones are likely to help more than hurt the world economy, largely because they increase the size of markets. Larger markets lead to greater productive efficiency and competitiveness. Thus, trade zone are likely to create more trade than they divert. Moreover, he argued that trade zone seems to be forming along ‘natural geographic boundaries. Countries naturally tend to trade more with their neighbours than with distant countries because of transporting goods and services and communicating over long distance is costly. As a result, free trade zones among neigbouring countries may, in practice, be good for the world.

The gains from freeing trade within regional zones will be larger and the costs of reducing trade across zones smaller than implied by moving to zones that are not based on natural geographic boundaries. Finally, Krugman argued that moving toward global trade liberalization through the GATT process is hopelessly stalled, making free trade zone the only viable alternative. Among the reasons Krugman cited for the demise of the GATT are decline of United States as the principal world economic power, the increasing importance of such non-tariff barriers as domestic regulation and investment policies, and the growth of new players in the world economy, such as the Japanese, who arguably play by a different set of rules.

3.2 Advantages and Disadvantages of FTZ Using Welfare Effect

Despite the recent proliferation of FTZs little effort has been made to apply trade theory to this phenomenon. The only major theoretical work is by Hamada (1974) and the extensions by Rodriguez (1976) and Hamilton and Svensson (1982).
3.2.1 Hamada (1974) Model

Hamada major proposition is that an exogenous increase in foreign investment within the zone decreases national welfare if the importable sector is relatively capital-intensive. The intuition is that an increase in foreign capital in the FTZs attracts labour from the domestic zone. The Rybczynski Theorem implies that if the importable good is relatively capital-intensive, then its output will increase, worsening the distortion due to the tariff and lowering national welfare.

3.2.2 Hamilton and Svensson (1982)

They offer an important critique of the Hamada model. They point out that Hamada’s two propositions depend crucially on his implicit assumption that good 1 is not produced in the FTZ. In Hamada’s setup, however, there is nothing to preclude production of good 1 in the FTZ since firms in industry 1 are indifferent between producing in the zone and producing in the domestic market. If good 1 is indeed produced in the FTZ, then, as Hamilton and Svensson argue, Hamada’s propositions do not hold.

3.2.3 Miyagiwa (1986)

Miyagiwa feels that Hamada model omits some important features of FTZs. Hamada model on the establishment of an FTZ lowers the return to capital there. It is unclear why a government seeking to attract foreign investment should adopt policies which have this effect. Furthermore, in this case, foreign investment in the domestic zone (where the return to capital is higher) would have to be barred by the government - whereas the usual FTZ contains a package of benefits which makes it more attractive to foreign investors than the domestic zones.

These paradoxical features of Hamada’s model arise from his 2 x 2 Heckscher-Ohlin framework. With only one relative commodity price to work with, it is natural to interpret an FTZ as involving the removal of tariff protection on the importable good. Thus, Hamada’s model is more applicable to FTZs designed to stimulate consumption such as airport duty-free shops than to many FTZs in developing countries.

He argued that a typical FTZ in LDCs provides a variety of incentives for the purpose of inducing producers to venture into nontraditional export-oriented industries. In order to capture these features of FTZs, FTZ as seen an additional sector. Thus, the formation of an FTZ preserves existing distortions in one relative price in the domestic zone but counteracts them in the FTZ via a distortion in a second relative price. This distortion is favorable to foreign capitalists and hence serves to attract foreign investment in the manner usually associated with an FTZ.

3.3 Objectives of FTZs

FTZs are an integral part of an export-oriented development strategy recently adopted by many LDC governments. This emphasis on the export-oriented policies stems from the dismal failures of an earlier development strategy based on import substitution and primary exports. Nowadays, LDC governments desire to emulate those countries which have successfully industrialized their economies through export promotion, most notably, Taiwan, South Korea, Singapore, and Hong Kong. Though the actual policies governing FTZs differ in detail among countries, the basic objectives of FTZs are to enhance foreign exchange earnings, develop export-oriented industries and to generate employment opportunities.

For several reasons, non-traditional exports could play an important role in the development and industrialization process in the Third World. For instance, exports may generate the scarce foreign exchange needed to finance imports of industrial inputs and capital goods, help to realize economies of scale and also be a source of employment and GNP growth. A common
policy instrument aimed at stimulating exports has been the establishment of FTZs. The objective is to lure export-oriented enterprises to the FTZs. In addition to free trade status, various incentives such as tax rebates are commonly offered.

Economists over the years have argued that FTZs have a negative or, at best, a very limited positive effect on the host country. Still, FTZs are an increasingly popular trade instrument all over the world, and there are reasons to believe that an important beneficial effect of FTZs. These reasons are broadly classified into bridging object and idea gap.

One common feature of LDCs is infrastructure deficit, as such, the theory of object gap postulates that FTZs would be effective in filling shortage of machinery, human capital, infrastructure, among others.

Another important channel of this catalytic role to economic development is ‘bridging idea gaps’. This theory emphasized the role of multinational enterprises and foreign direct investment in diffusing ideas among countries. Many indigenous firms in developing countries lack “export knowhow” that is, the knowledge that would enable them to master the production, marketing, distribution and selling of export goods. Since one purpose of FTZs is to attract foreign direct investment and use foreign knowledge and capital to create an export base, local firms may be stimulated to enter the export market by learning from the experience of the foreign affiliates. That is, the foreign affiliates may act catalyst on potential domestic exporters and FTZs may thus contribute to the host country’s total exports in two different ways: directly, since the exports from the FTZs is part of the country’s total exports but, more importantly, also indirectly by inducing local firms to export.

Ideas include the innumerable insights about packing, marketing, distribution, inventory control, payment systems, information systems, transactions processing, quality control, and worker motivation that all are used in the creation of economic value in a modern economy. Further, this catalyst effect could be more than internal to FTZs, that is, affect not only local firms which operate or are induced to operate within the FTZs, but also spill over to domestic firms outside the FTZs.

Even if both types of gaps coexist in developing countries, and even if overall stable macroeconomic conditions in combination with policy favoring education, secure property rights and legal institutions help to eliminate both of them, the closing of idea gaps requires substantially different policy measures than those for object gaps. In developing countries large gains could be made by exploiting the ideas developed elsewhere and attention is thus directed toward the diffusion of ideas among countries. An important channel for this transmission is foreign direct investment made by multinational enterprises. The foreign affiliates may, for instance, provide an important example for potential indigenous exporters by demonstrating how to combine managerial, technical and marketing know-how in order to enter the world market. That is, the host country may benefit from a catalyst effect stimulating local firms to engage in export activities. A study of individual, nontraditional, manufacturing industries in 11 developing countries and the circumstances behind their successful entry into the world market provides some support for this hypothesis.’ The tentative finding is that in almost every case a particular person, firm or public agency played a critical role in the initial export phase by combining local endowments with managerial experience, marketing knowledge and mastery of relevant technology. In industries where the country in question had little or no previous experience, this role was often played by an affiliate of a foreign multinational enterprise. This was especially true for the least developed countries.

Since FTZs are intended to attract foreign multinational enterprises, it is possible that that they could have a catalyst effect on the host country. In the case of Mauritius, for example, the
Mauritian FTZ played a crucial role in the country’s tremendous development record by bringing ideas and knowledge to the island. In a study of the Dominican Republic, it found that the foreign firms present in the zones have initiated exports of a wide range of products and that native managers trained in foreign firms played an important role in the establishment of locally owned firms in the zone. Important vocational training and learning-by-doing was found not only among the officials but also on the factory floor: for example, labor productivity grew rapidly during the first years of a new firm’s life reflecting a high degree of on-the-job training of unskilled workers. Thus, foreign firms clearly had a positive impact on the local export supply emanating from the Dominican Republic’s FTZs. Other objectives include employment creation, linkages to the host country, foreign exchange earnings and suchlike. It also include capital infrastructure.

4. Common Mistakes in Establishing FTZs

A common mistake was to incorporate regional development objectives into the FTZ investment decision. Because of its convenient enclave structure, an FTZ could in principle be located anywhere in the host country and policy makers quickly saw the possibility for killing two birds with one stone. Thus, the FTZs were in some cases established in rural underdeveloped areas considered to be most in need of economic development, in order to promote a more balanced economic development in the country.

Other commonly cited factors explaining the poor performance of several EPZs are poor planning and design, abundance of red-tape procedures, insufficient and inefficient promotion, lack of supporting government policy interventions, and finally, pure mismanagement.

4.1 Necessary Conditions for Establishing Successful FTZs

A favorable location, promotion, adherence to the basic FTZ principles, i.e. duty-free imports of inputs, minimized red-tape procedures, guaranteed profit repatriation and the presence of a supporting infrastructure such as telecommunication, electricity, and water.

Since FTZs are most often enclaves, two diametrically opposite scenarios are feasible for initially import-substituting countries. The establishment of an EPZ could either be part of an overall trade-oriented reform program aimed at opening up the country, or regarded as an opportunity to reap the benefits from export promotion while simultaneously continuing with an import-substituting policy in the rest of the country. In the first case, supporting trade-oriented reforms, putting the rest of the country on an equal footing status with the rest of the world, facilitates the spread of the export supply response outside the zone. In Sri Lanka, for example, the introduction of the Katunayake zone was part of a series of trade-oriented reforms. The zone attracted a large number of foreign direct investments. As other types of duty-free regimes were introduced outside the zone, a successful manufacturing export sector evolved, largely located outside the zone. In the latter case, when the import-substituting development policy remains in the rest of the country, the FTZ may well be prosperous per se but the diffusion of the export supply response may be restricted.

An additional important link between the host country’s trade policy and FTZs, which indirectly influence the potential for the catalyst to work, is that FTZs might also influence the overall trade policy. Even if the initial intention was to continue with import substitution, a convincing performance of the FTZs may provide both the arguments and the resources needed to induce a policy shift toward greater openness. In China, for example, the developing prosperity within the free economic zones has raised demand for further trade reforms. Such reforms should permit a further expansion of exports. Another possibility, emphasized by the World Bank (1992), is that a successful FTZ may just as easily conserve an inward oriented
industrial structure in the host country. The underlying reason is that a well-functioning FTZ generates export earnings and creates employment. Since one of the potentially important explanations behind a policy change aimed at reducing anti-export biases is an acute trade deficit due to low export earnings, possibly in combination with high unemployment, the presence of EPZs may prolong the time period in which a country can pursue a protectionist trade strategy, undertaking no or few trade liberalizing reforms. This may be the scenario if the FTZs are important enough to create considerable employment and large inflows of foreign exchange. FTZs accomplishing this are commonly regarded as a successful investment for the host country but if outward orientation is a primary goal, FTZs could delay reforms. This line of reasoning indicates the unsuitability of assessing the performance of FTZs in isolation, not taking the total effect of the FTZ on the host country into account.

Urban and rural areas are compared as appropriate locations for a free-trade zone within a developing country suffering from urban unemployment. If domestic capital is mobile between the two regions, then the rural area is shown to be preferable to the urban area. This conclusion may be reversed, however, if capital is sector-specific.

5. FTZ: The Nigerian Experience

5.1 Overview

Free Trade Zone is a specifically designated enclave, clearly delineated and administratively considered to be outside the customs Territory of the host country, having special regulatory and fiscal incentive regimes to enhance its competitiveness. It success therefore is anchored on highly efficient infrastructural facilities, less bureaucracy and streamlined One-Stop-Shop operational procedure. The objectives are to fast-track industrialisation and sustainable economic growth.

5.2 Regulatory Framework for the Establishment of Free Zones

In Nigeria, there are two types of free trade concept – the specialised and the general-purpose trade/export zone. For effective management of these zones, at the federal level, two bodies are in place – Nigerian Export Processing Zone Authority (NEPZA) for the general-purpose zones and Oil & Gas Free Zone Authority (OGFZA) for oil & gas zone.

The licencing, monitoring, regulating and facilitating FTZ is vested in the NEPZA by the EPZ Act 63 of 1992. The act empowers the body to grant all requisite permits and approvals for operators in the zone. The types of FTZs that can be established are public sector, private sector and a combination of both.

5.2.1 Entry Procedure

The following are the entry procedures into the zones, for private, public or partnership between private and public:

1. Availability of unnumbered land for the purpose of citing the zone;

2. Obtain and complete prescribed forms from either NEPZA or OGFZA, as applicable; cost of application is not uniform but depends on the tariff Structure of the Zone; on completion of the application form by the prospective investor, it is submitted to the zone of interest; within the framework of NEPZA’s operation, the investor is expected to hear of the outcome of the application with 5 working days; and if the application is approved, the enterprise is expected to visit the zone, pay the applicable licencing fees, and become a member of the zone’s family. A feasibility report on the projects showing among other things; the Economic and Financial
Viability; the Socio-Economic Effect of the Project; thorough Evidence of Financial Capability of the Sponsors and a Development plan

3. Submit completed form with the following attachments:
   • Project description
   • Market survey
   • Funding proposal
   • Financial projection
   • Environmental impact statement and control

4. Procedure for Admitting Companies are as Follows;

5. Upon approval of request, the following steps are thereafter taken:
   • company’s registration with CAC;

6. If outright purchase of factory building is desired
   • 10% deposit of the selling price of the standard building is made within 3months of approval
   • payment of the balance 90%, 5months after

7. Renting of factory building
   • Down payment of one year rent required not exceeding 3months after signing the rental contract. Thereafter, rental charges shall be paid within the first quarter of every year

8. Leasing the standard factory
   • Payment of 40% lease value on approval
   • Payment of 30% at the end of the 5th year
   • Payment of 30% balance at the end of the 10th year

9. With condition(s) in (iii) fulfilled, the investor may proceed to carry out the following:
   • Remittance of investment capital;
   • Importation and installation of machinery; and
   • Commencement of production.

5.3 Types of Industries Permissible in Nigeria Free Trade Zones

Permissible industries in Nigeria include Electrical and electronic products; Textile products; Wood products; Leather products; Plastics products; Petroleum products; Rubber products; Cosmetics; Garments; Chemicals products; Metal products; Educational materials and equipment; Communication equipment and materials; Sports equipment and materials; Machinery; Handicraft; Optical instruments and appliances; Medical kits and instruments; Biscuits and confectioneries; Printed materials, office equipment and appliances; Paper materials; Food processing; Pharmaceutical products; and Oil & gas activities.

5.4 Incentives

The incentives firms located the zone are expected to enjoy include; exemption from payment of all federal, state and local taxes, levies, rates, and customs duties; repatriation of foreign capital
investment in EPZs at any time with capital appreciation on the investment; no import or export licence; rent free land during construction of factory space; services such as warehousing, standard pre-built factories, transportation, sanitation, canteen, etc, are available within the zones; unrestricted remittance of profits and dividend earned by investor in the zone; 100% foreign ownership of enterprises in the EPZ allowable; and enterprise in the zone can sell up to 100% of their manufactured items, with up to 35% value addition, in the domestic economy, regardless of whether the item is banned or prohibited.

5.5 Strategic Evaluation of FTZ

The first FTZ in Nigeria was established in 1992, which has subsequently increased to 31 as at 2015, it is apt to evaluate the performance of the zone visa-a-visa the objectives. Specifically, the strategic objectives of the zone are to fast-track industrialization and promote sustainable economic growth. Therefore, robust or unbiased indicators for evaluating the achievement of the strategic objective of the FTZs would effectively focused on the ultimate targets or measurable deliverables. The deliverables consistent with standard literature include increase export, diversify the export-base of the economy, reduce import, improve trade balance, reduce unemployment generation, promote accretion gross external reserves, improve value chain in terms of value added, and increase the number of FDI in Nigeria.

Consistent with the objectives of increasing exports, Figure 1 essentially presents a snapshot of Nigeria’s total export from January 1992 to May 2016. Figure 1 show that export was relatively flat from 1992 to 199, maintained an upward trend till 2008 before a sharp fall in 2009, a period that coincided with the global financial crisis.

The same characteristics manifested in July 2014 till date, reflecting the vulnerability of Nigerian export to exogenous shocks. This in essence shows that Nigerian export-base is not diversified and could be driven majorly by oil export. From the behavior of the data, it would be safe to conclude that the objective of increasing export is yet to be achieved. This brings to the fore, the urgent need to rethink the FTZs model adopted in Nigeria.

Figure 1: Crude Oil Prices and Nigeria’s Total Export

From figure 1 above, Nigeria’s export perfectly tracks crude oil prices, which is a strong indicator that the major driver of Nigeria’s export is crude oil. Export base that is largely driven by crude oil is a bit tricky. For instance, it has been established in extant literature that foreign
direct investment in manufacturing industry is more beneficial than foreign direct investment in extractive industry. Scholars attribute this to the number of jobs the manufacturing sector creates, as well as small firms that feed into the value chain of manufacturing industries. Figure 1 clearly shows that crude oil constitute 95 per cent of Nigerian export, which revealed that the objective of diversifying Nigeria’s export-base and increase export has not been achieve. Since the law allows enterprises in FTZs to sell at most 35 per cent of their good (value added) in the domestic market, this is expected to reduce import. Again, import data in Figure 2 showed that Nigeria consumption is only susceptible to exogenous shocks. Specifically, Nigeria’s import data have been trending upwards from 1991 till date, but with sharp falls in 2007, 2012 and 2015, reflecting period of exogenous shocks. The figure also revealed that the objective of reducing import has not been met.

Figure 2: Nigeria’s Import Data (CIF and Total Imports)

Overall, the cardinal objectives of reducing import, increasing export, and promoting favourable balance of trade has remained elusive, despite the exponential increase in the number of FTZs in Nigeria between 1992 and 2005. For instance, total trade and balance of trade have nose-dived between 2010 and 2016. Figure 3 clearly showed that the performance of Nigeria’s balance of trade has not been favourable. Figure 3 illustrates that Nigeria’s trade balance is deficit, depicting Nigeria as a net importer and classic consuming nations. This trend tends to negate the overarching objective of establishing FTZs in Nigeria and also brings to the fore, the imperativeness of rethinking the Nigeria’s FTZ model, in order to make it operationally effective and in line the development strategy of the government.
6. Conclusion and Recommendations

The review of the performance of FTZs in Nigeria using anecdotal evidence, consistent with the objectives for its establishment, revealed that FTZs in Nigeria have performed sub-optimally. This could be traced to the regulatory framework and business environment. Based on the findings, the study recommends as follows:

i. Need to Promote Inter-Agencies Collaboration among MDAs: The activities of Ministries, Departments and Agency of government appears to conflict in the administration of FTZs in Nigeria. There are cases where state government tax authorities invade the FTZs for the collection of company income tax and personal income tax, which in most cases contradicts the agreements reached between the federal government and foreign companies operating in the zone. There should be extensive collaboration between all tiers of government in the setting up and administration of the zone, in order to avoid interlocking conflicts that may adversely affect the activities of companies in the zone.

ii. Promote Adequate Knowledge of FTZ Scheme: There is an urgent need to extensively increase the knowledge base of government agencies whose functions are organic to the FTZ scheme. Most staff of the zone lack basic ideas of the objectives for establishing the zone, thus, they run the zone like any other agency of the government. They need massive capacity building on their regulatory roles, objectives of the zone, reporting standards, global best practices on the administration of FTZs, among others.

iii. Need to Rethink FTZs as a Location: In most countries, the concept of FTZs has gone beyond setting-up unencumbered land as FTZs. In some jurisdictions, certain hotels are classified as FTZs in order to attract soft skilled manpower to its needed areas. The Nigerian government could start looking in that direction, as this appears to be the best strategy for attracting soft skill experts as private direct investment.

iv. Rethink Power Supply: Epileptic power supply or independent power generation is a common characteristic of most FTZs in Nigeria. The government could rethink this, in terms of setting-up micro-grids. Reputable power generating companies could be
invited to establish these micro-grids in the zones. This would promote constant power supply, reduce the cost of doing business, and even provide energy source to communities within the zone. More importantly, it would free up energy from the national grid that could be channeled to other potential domestic household users.

v. Lack of Clarity in Government Policies: Some time ago, the government placed some goods on the import prohibition list, the law of FTZs allow the importation of such goods into the zones. Most goods destined for the zones were seized by custom. The lag in resolving the problem resulted in accumulating higher demurrage, and some became bad. Government should strive in providing clarity around its policies.

vi. Need to up-date the laws: FTZs should be reviewed periodically to promote dynamism in regulation.

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