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FROM THE DESK OF EDITOR –IN - CHIEF

LASU Journal of Accounting and Finance is a scholarly bi – annual research journal published by the Departments of Accounting, Banking & Finance and Insurance, Lagos State University. The journal is committed to effectively disseminating research findings in accounting, finance, insurance and related business areas to help improve the Nigerian business environment in particular and Africa in general. It is to provide an opportunity for effective discourse on important issues and serve as a platform for increasing the existing pool of academic knowledge and skills in scholastic expositions.

This issue is the fourth edition and continues to increase in the quality and spread of authors across Nigerian universities. It assembles 15 well-researched articles focusing on various topical issues in accounting, finance, insurance other related areas of management of businesses in Nigeria, including Tax and public finances planning, Corporate governance, Human resources management, and Risk management practices. 50% of the papers focused on evaluating the macroeconomic framework of government policies such as, public expenditure, debt management, foreign exchange management and micro businesses while the rest investigated front burning issues mainly in banking and insurance sub-sectors.

I should mention that greater research is required now on microeconomic frameworks of how the informal sector in Nigeria can be stimulated to greater productivity and which indirectly will influence the foundation for a sustainable revenue generation agenda for all strata of governments in Nigeria

While thanking researchers who carefully presented the research papers published in this issue, we request their continuing assistance and solicit the other members of the academic community in Accounting, Finance, Insurance and other related areas to submit their articles publication in our subsequent issues. We are indebted to the members of our Editorial Advisory and Review Board for their contributions to the review publication processes.

Above all we are grateful to God who makes all things possible.

Editor –in – Chief,
Professor Yusuf B. R.
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TAX PLANNING AND SHAREHOLDER'S WEALTH MAXIMIZATION: EVIDENCE FROM LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

Tax planning is considered as the major source of corporation's tax gap. Reasonable number of studies conducted their studies on the assumption that tax planning is a transfer of wealth from government to shareholders. This study argue that, contrary to developed economies, tax planning may not necessarily result to transfer of wealth to shareholders due to higher agency costs particularly in the banking sector of developing country like Nigeria. Hence, the purpose of this study is to examine whether corporate tax planning increases shareholder's wealth. To achieve this, secondary data was obtained from a sample of 14 listed firms in the Nigerian banking Industry over the period 2009-2018 and OLS regression model was be used to analyze the data. The result indicates that ETR is negative and significant with a coefficient of -1.69 and p-value of 0.01 which is significant at 5% level. The result implies that an increase in ETR by one percent will affect TSR by -1.69. This means that as effective tax rate increases, the total shareholders' return decreases by more than the increase in effective tax rate. The study recommends that relevant authorities like FIRS and the shareholders should devise mechanism for monitoring and controlling firm's tax planning activities. This is to ensure that the shareholder benefit from the tax savings. In addition, shareholders should ensure that management is not engaging into tax fraud which could be detrimental to the state and the company's reputation in general.

Keywords: Tax planning, Wealth Maximization, Shareholder Wealth, Agency Cost, Banking Sector.

1. Introduction

Corporate financial decisions are mainly undertaken by management who are saddled with the responsibility of matching resources primarily to improve performance, create values and increase wealth for the owners. A board that is interested in top-line performance improvement primarily focuses on sale growth through advertising or physical capital expansion and will channel resources to these goals. Alternatively, management can choose to focus on bottom line performance. Effective corporate tax management is a significant driver of bottom line performance, when management invest resources into values maximizing activities such as tax avoidance, this would result in lower tax liability and improve bottom line financial performance, and this shows the potentials of value creation abilities. The higher the potential of value creation, the higher will be the dividend and the stock price relative to the capital invested which translate to wealth maximization for shareholders. Shareholder wealth maximization simply means maximizing the net present value (NPV) of any given financial decision to shareholders. NPV of a given financial decision is the difference between the present value of benefits and the present value of costs of such a decision.

Tax avoidance could be defined as the planning and operation of business activities within the context of existing legislation in such a way that the business realizes the optimal or best tax position while achieving its set goals. Chen, Chen, Cheng, and Shevlin, (2010) Defined corporate tax aggressiveness as downward management of taxable income through tax planning activities. Tax planning include not only strategies aimed at minimizing tax liability but also considers the timing of cash-flow effect on the business in terms of when it is more advantageous for a business to settle its tax liability without incurring any penalty (Kiabel & Akenbor, 2014). In this context, tax planning or avoidance is seen as an act of transferring wealth from the state to the firm using a legally justifiable means. In this study therefore, corporate tax avoidance, planning and aggressiveness are used interchangeably.

Shareholder wealth is defined as the present value of the expected future returns to the owners of a firm. Wealth maximization refers to changes in wealth of shareholder on a periodic basis. Applicable to listed firms, change in shareholders' wealth are inferred mostly from the changes in stock prices, dividend paid and equity raised during the period (Jog & Holst, 1997).

Studies on corporate tax avoidance and shareholder wealth provide a nuance results. For instance, Swenson (1999) and Brooks, Godfrey, Hillenbrand and Money (2016) reported a negative relationship between tax avoidance and shareholder wealth maximization measures. Conversely, Bauman and Shaw, (2005), Minnick and Noga, (2010) provide evidence that investment in tax management benefits shareholders and that better tax management is positively related to higher returns to shareholders.

In the same vein, other researches on corporate tax avoidance and shareholder interest such as Desai and Dharmapala, (2006), Minnick and Noga, (2010), Amiram, Bauer, and Frank, (2013) opened a line of enquiry about who actually benefits from tax avoidance activities. In another study, Desai and Dharmapala (2009) pointed out that literature on the effect of taxes on financial decision presumed that tax avoidance activity result into corporate tax savings and thus, implies transfer of wealth from the state to shareholders.

The study went further to argue that firm governance should be an importance determinant of corporate tax savings and that cash-flow arising from avoiding tax is potentially offset particularly in poorly governed firms due to high agency cost. In addition, Muhammad, (2009) points out that the growth of the firm and its subsequent maximization of shareholder wealth are likely to be a mirage without the necessary oversight that corporate governance brings to bear.

In Nigeria and particularly in the banking sector, weaknesses in Banks' CG attributed to the Banking crisis of 2007 to 2009. Governance malpractice within Nigerian banks unchecked at consolidation, become a way of life in large parts of the sector, enriching a few at the expense of many depositors and investors (Sanusi, 2010). Moreover, the then CBN governor reiterates that governance in many banks failed because boards ignored good governance practices reasons including being "misled by executive management" participating themselves in opportunistic behaviors at the expense of owners and depositors. Therefore, the study aims to provide insight into whether free cash-flows arising from corporate tax savings advance shareholders wealth in the listed MDBs in Nigeria.

The study compliment and extend the growing body of literature on tax planning and shareholder interest in general which is receiving considerable attention in taxation and accounting research. The study contributes to the existing body of literature particularly by exploring and describing the relationship between tax planning and shareholder wealth maximization of the Listed DMBs in Nigeria. The result of the study is beneficial to various stakeholders like the Banks, Financial analysts, investors and researchers.

Regulatory Authorities such as CBN and CAC would benefits from the study. The study will help the authorities in designingpolicies that will better align the interest of the principals (shareholders) with that of the agents (Board and the managers). The study would particularly assist CBN in developing policies that will address the corporate governance challenges in Nigerian banks and prevent unnecessary failure of banks and hence increasing the confidence of stakeholders.

The paper is structured as follows: section one presents the introduction as a background to the study followed by the literature review as section. The next section presents the methodology followed by the results of the analysis and discussion. The last section presents the summary, conclusion and recommendations.

2.0 Literature review

2.1 Tax Planning and Shareholder Wealth Maximization

Bauman and Shaw (2005) examined the managerial forecasts of corporate tax planning through annual effective tax rates disclosed interim financial statements if they are useful in predicting future quarterly earnings or are impounded in stock prices. The study reported that interim effective tax rate disclosures are useful in predicting next- quarter earnings and increase in ETR is positively related to higher future earnings. In sum, interim ETR is useful in predicting future earnings.

Similarly, Hanlon and Slemrod, (2009) investigated the stock price reaction to corporate tax avoidance. They find that, on average, a company's stock price declines when there is news about its involvement in tax shelters. The study also uncover some evidence of cross-sectional variation in the returns. For example, the stock price decline is more negative for firms in the retail sector, suggesting that part of the reaction may be a consumer/taxpayer backlash. The reaction seems to be less negative for firms with a higher cash effective tax rate, consistent with the market interpreting the news as a positive signal of tax aggressiveness. In terms of governance, they find that provisions not related to management entrenchment are negatively related to the market reaction.

Hanlon and Slemrod, (2009) use an event-study methodology to test the market reaction to news that a firm has engaged in tax aggressive behaviour and examine the 3-day window centred on the day of the press mention. Hence, some event other than news about tax shelter involvement may occur within the 3-day which would affect the stock price within the period.

In addition, Lev, Baruch and Thiagarajan, (2010) reported that stock return is negatively related to annual changes in the ETR. This could be as a result of a negative signal to the persistent level of profits.

Swenson (1999) found a negative relationship between ETR and share price because of the significant effects of a long-term sustainable reduction in ETR on market capitalization and shareholders' value.

In the same vein, Shaipah, Wahab, and Holland, (2012) Use a sample of UK quoted firms from 2005 to 2007 and contributes to the debate of who determines, and benefits from tax planning conducted by firms. Their study includes corporate governance measure which they expect to moderate the potential implications of a tax related shareholder–manager information asymmetry. They report a negative relationship between tax planning activities and equity market value. Further, the relationship is robust to the inclusion of corporate governance measures which was expected to moderate the potential implications of a tax related shareholder–manager information asymmetry.

Brooks, Godfrey, Hillenbrand, and Money (2016) conducted a comprehensive examination of the link between corporation tax payment and stock returns in the UK. They find no apparent link between tax rates and stock returns for the UK, no matter how tax payment is measured. This is true throughout the sample period and for both customer-facing and non-customer-facing companies. However, allowing for industry norms and a host of firm characteristics, companies with lower effective tax rates have significantly higher levels of stock market risk. Firms that are reported in the newspapers in a negative way in relation to their level of corporation tax payment experience small negative stock returns, which are partially reversed within a month. However, the initial negative effects and subsequent rebound are both more pronounced for smaller companies. News announcements of the potential involvement of a firm in a corporate inversion (expatriation) result in steeper and much longer-lasting falls in share prices, whereas news stories of a more general nature relating to a firm's tax avoidance or tax payments have little noticeable effect.

More so, Semaan, (2016) exploit a quasi-natural experiment provided by a tax reform in Korea to examine the effect of corporate tax avoidance on firm value, and the interaction between the corporate tax system and corporate governance. The findings show that tax avoidance on average, is a value enhancing activity. In addition, the market response to the tax reform was also positive.

Babkin, Glover, and Levine, (2017) Investigates corporate inversion (the process of redomiciling for tax purposes), they develop a model by incorporating the corporate tax benefits and personal tax costs, to quantify the return to inversion for different shareholders. The study reported that corporate inversion, (a strategy of tax planning) reduces corporate income taxes and increase the financial performance which would eventually benefits the shareholders through increase in dividend and equity market price.

Form the studies reviewed, it could be deduced that the relationship between tax avoidance and shareholder wealth maximization remains inconclusive. While the some studies reported negative relationship between tax avoidance activities and shareholder wealth others reported positive relationship. At this point, one could begin to suspect that the benefit of tax avoidance in form of free cash flow that is ultimately aimed to improve wealth for shareholders (principals) might be moderated by the board of directors (agents) due to agency problem. Therefore, this study attempts to investigate the relationship between corporate tax planning and shareholder wealth maximization of the listed DMBs in Nigeria.

3. Data and Methodology

3.1 Population, Sample and Source of Data

The population of the study comprises of all the listed Deposit Money Banks (DMBs) that operates over the period of ten years from 2009 to 2018. As at 2018 was 15 DMBs listed in the Nigerian Stock Exchange.

The study employ two points filter to arrive at the sample of the study. Thus, for a bank to be included in the sample it must be a national bank or international bank based on the new CBN classification and must be listed in the Nigerian stock exchange market through-out the period under study (2009-2018). This is to ensure that banks under study portray national picture and annual reports and accounts cover the period of the study in order to avoid missing variable. Wema bank Plc seizes to be national bank after new categorization of banks into international, national and regional banks. It opted out for regional banking and therefore filtered out of the study. After adherence to these criteria, 14 banks emerge as the sample size.

Secondary source of date will be used for the study. The secondary data will be collected from the annual reports and accounts, the Nigerian stock exchange (NSE) Websites and the Capital Assets Services Website. The data include the daily stock price from the NSE daily price list, relevant information to compute corporate tax avoidance proxies will be extracted from the annual reports and accounts and information about the corporate governance will also be extracted from the firm's annual report and accounts of the sampled banks.

3.2 Variables of the Study

The study has dependent variable and explanatory variables. The explanatory variables are the independent variable and the control variables.

3.2.1 Dependent Variable

Shareholder's wealth maximisation is considered to be the dependent variable of the study. Shareholder wealth is the present value of the expected future returns to the owners (that is, shareholders) of the firm. These returns can take the form of periodic dividend payments and/or proceeds from the sale of the stock. Rosenstein & Wyatt, (1990) and Ishii et al., (2003) measured shareholder wealth as the market value of equity share. While Prempeh and Odartei-Mills, (2015) used dividend yield to proxy shareholder wealth maximization. In addition, Jog and Holst, (1997) proposed total shareholder Return (TSR) as a measure wealth maximization and claim that it is more comprehensive measure of shareholder wealth maximization. This is because it is the return earned by shareholders through the combination of price changes and dividend received. They argue that TSR measure allows mangers to make appropriate trade-offs among profitability, growth and free-cash flows and to measure the unit's contribution to the overall company capital gain and dividend yield to investors. Total Shareholder Return (TSR) The annual TSR is calculated as the change in stock price plus any dividends divide by the initial price. Mathematically, TSR can be expressed as:

$$TSR = \frac{Price_{t+1} + Dividend - Price_t}{Price_t}$$

In line with Jog and Holst (1997) this study use TSR to proxy shareholder wealth maximization.

3.2.2 Independent Variable

The independent variable of the study is the corporate tax planning. Tax planning is any (legal) decision taken with the aim of reducing the corporate tax liabilities. There are several measures of corporate tax planning used in the prior literature like Chen et al. (2010), Armstrong et al., (2012), and Annuar et al. (2013) which are mostly based on estimates from financial statements. These measures include: the Effective Tax Rates ETRs, discretionary permanent differences; unrecognized tax benefits (UTB) and tax shelter estimates. Following Armstrong et al., (2012) and Annuar et al. (2013) this study use accounting ETR as the proxy for corporate tax planning. Accounting ETR reflects the aggregate proportion of the accounting income payable as taxes which measures tax planning relative to accounting earnings. Accounting ETR is computed as the total tax expenses divided by the accounting income before tax.

3.2.3 Control Variables

Previous studies recognized the use of some firm specific features as control variables. Kyereboah-coleman, (2007) for instance used Firm size, Leverage, Firm Age, Firm level risk, Asset tangibility and liquidity as control variables. In addition, Marouan and Moez, (2015) also used firm size, leverage, liquidity, solvency, firm age and free cash flow. This study proposed to use firm size, profitability and financial leverage as control variables. The three variables are selected because they were found to be contributing in explaining some variation in the stock price and dividend of firms as per prior studies.

Firm Size is calculated by taking the natural log of total assets. This measure is in-line with Gul and Ahmad (2012) and Hassan et al. (2013). Profitability is proxied using Return on assets which is measured as profit before tax divided by the total assets.Gul and Ahmad (2012) and Hassan et al. (2013), Ribeiro, Cerqueira, and Brandão (2015) and Salaudeen and Eze (2018) used this measure to proxy profitability. Leverage is calculated as total debt divided by total assets as used by Gul & Ahmad (2012), Pilos (2017) and Ribeiro et al. (2015)

3.3 Methods of Data analysis

The data generated for the study was analyzed using three statistical techniques, namely: descriptive statistics, correlation and multiple regressions. Specifically, descriptive statistics was used compute the summary statistics of the study variables while correlation was used to explore the nature of relationship among the study variables and lastly multiple regression was used to examine the effect of independent variables on the dependent variable.

3. 4 Descriptive statistics

Descriptive statistics was used to compute the summary statistics of the study variables. These include mean, median, maximum, minimum and standard deviation. It will provide an insight into the central tendency of the data and its spread around the mean.

3.5 Correlation

Pearson correlation coefficient was used to examine the relationship amongst the study variables.

3.6 Multiple Regression Analysis

Multiple regressions was used to assess the impact of independent variable (Accounting ETR) on the dependent variable (TSR). As a result of the longitudinal nature of the data, panel data regression will be used to analyze the data and test the hypotheses of the study.

3.7 Models specification

The primary specification of the model that would be tested in the study is as follows:

$$Shareholders' Wealth = f(\ Tax\ planning)$$

The model is the basic panel econometric model which includes the independent variables together with the moderator and the control variables. The model is stated as follows:

$$TSR_{it} = \alpha_{it} + \beta_1 ETR_{it} + \beta_2 ROA_{it} + \beta_3 FS_{it} + \beta_4 FL_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots (1)$$

Where:
TSR_{it} = Total Shareholder Return for firm i in period t
ETR_{it} = Effective Tax Rate for firm i in period t
ROA_{it} = Return on Asset for firm i in period t
FS_{it} = Firm Size for firm i in period t
FL_{it} = Firm Leverage for firm i in period t
α_{it} = Regression intercepts for firm i in period t
β_1 to β_4 = are the coefficient estimates of respective independent variables.
ε_{it} = Error term for firm i in period t

4. Results and Discussion

4.1 Descriptive Statistics

Table 1: Descriptive Statistics

	MEAN	STD. DEV.	MIN.	MAX.
TSR	8.66	13.58	-1.37	65.74
ETR	0.24	0.87	-0.06	7.10
FS	11.96	0.49	10.88	12.68
LEV	0.21	0.61	0.00	5.13
ROA	0.03	0.05	-0.08	0.28

Source: Researcher's Computation using Stata (2019)

Table 1 presents the descriptive statistics of the study variables. It is evident that the mean TSR is 8.66 with a standard deviation of 13.58 which indicates the extent to which TSR cluster around the mean. The minimum and the maximum values stands at -1.37 and 65.74 respectively. The ETR which measure the corporate tax has a mean value of 0.24 which is lower than the statutory tax rate of 30% indicating that, on average, DMBs in Nigeria do not actually pay corporate tax as expected. Evaluating the Firms' characteristics as control variables, firms' size which is measured as the natural log of total assets show an average value of 11.96 with standard deviation of 0.49 and the minimum and maximum values of 10.88 and 12.26 respectively. Leverage has a mean value of 0.21, standard deviation of 0.61 while maximum and minimum values stood at 5.13 and 0.00 respectively. Return on asset which measures the profitability has an average value of 0.03 with the standard deviation of 0.05 and maximum and minimum values of 0.28 and -0.08 respectively.

Table 2: Correlation Matrix

	TSR	ETR	FS	LEV	ROA
TSR	1.000				
ETR	-0.013	1.000			
FS	0.165	0.107	1.000		
LEV	0.001	0.026	-0.066	1.000	
ROA	0.475**	0.079	0.358**	0.384**	1.000

** Significant at 5%

* Significant at 10%

Source: Researcher's Computation using Stata

Table 2 presents the correlation matrix of the study variables. However, the study is more interested in the correlation between the dependent and the explanatory variable (TSR and ETR). Result of the correlation analysis show that the TSR is negatively related to ETR implying that increase in ETR results to decrease in TSR by 1.3% which is not significant at 10% level.

Table 3: OLS Regression

TSR	Coef	Std Error	T	prob.	VIF
ETR	-1.690	0.660	-2.560	0.013**	1.03
FS	11.580	3.140	3.690	0.000**	1.18
LEV	-5.490	1.830	-2.990	0.004**	1.18
ROA	192.160	42.350	-3.590	0.001**	1.37
R-square	0.418				
Prob. F	0.000				

** Significant at 5%

* Significant at 10%

Source: Researcher's Computation using Stata

Table 3 presents the result for analysis of the regression model. The model was developed to examine the effect of corporate tax planning proxy by ETR on shareholder wealth proxy by TSR. The dependent variable in the model is TSR. To test the variability of the variables in the model, heterokedasticity test was carried out which show that the error term is not constant, hence, robust regression was used. Variance Inflation Factor (VIF) was employed to test multi-collinearity. The result indicates the absence of multi-collinearity among the variables of the study.

The regression result show R^2 of 0.418 which means the model explains about 41.8% of the systematic variation in TSR. The F-stat is 9.71 (p-value = 0.00) which is significant at 1% level suggesting that the proposition of linear relationship between the dependent and the independent variables cannot be rejected. It also indicates the fitness of the model. Looking at the performance of the tax planning variable, it is evident that ETR is negative and significant with a coefficient of -1.69 and p-value of 0.01 which is significant at 5% level. The result implies that an increase in ETR by one percent will affect TSR by -1.69. This means that as effective tax rate increases, the total shareholders' return decreases by more than the increase in effective tax rate.

Based on result of the analysis therefore, the study found that corporate tax planning has a significant effect on total shareholders' return. Evidence shows that an increase in corporate

tax planning is detrimental to the shareholders because it will lead to reduction in the benefits accruing to the shareholders. This finding is in tandem with that of (Hanlon & Slemrod, 2009), (Lev Baruch & Thiagarajan, 2010), (Shaipah et al., 2012) and contradicts the findings of (Semaan, 2016)(Babkin et al., 2017). The finding also supports Agency theory of free cash flow which suggests that the cash flow does not benefit shareholder due to agency problem.

5. Conclusion and Recommendations

Based on the finding, the study concludes that investment in tax planning does not benefit the shareholders of Nigerian Deposit Money Banks. Hence, the study recommends that relevant authorities like FIRS and the shareholders should devise a mechanism to monitor the process of tax planning by the management of DMBs. This is to ensure that the shareholders benefit from the tax savings. In addition, the shareholders of DMBs should ensure that managements of their firm is not engaging into tax fraud which could be detrimental to the state and the company's reputation in general.

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CORPORATE GOVERNANCE AND ENVIRONMENTAL REPORTING IN NIGERIA

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ABSTRACT

Good corporate governance practices and sound environmental reporting performance are among the key challenges facing organizations today. The paper investigates the association between good corporate governance practices and environmental reporting. The study used the annual reports of 15 manufacturing companies out of listed on the Nigerian Stock Exchange. Four corporate governance attributes, namely; board size, board independence, gender diversity and audit committee were used as components of independent variables while the presence of environmental reporting, quality and quantity were components of the dependent variable (environmental reporting). This study applied dynamic panel analysis. The result revealed that gender diversity and board size influenced environmental reporting positively but not significant while board independence and audit committee have positive influence on environmental reporting. The research recommends that companies should show records of environmental activities in terms of costs charged to income in their annual financial report.

Keywords: Corporate Governance, Environmental Reporting, Panel Analysis, Manufacturing companies

1. INTRODUCTION

The rapid development in economic activities and globalization has caused serious environmental challenges in Nigeria. Companies around the world are under more community inspection than ever before and are forced to disclose information about their environmental enactment. This issue has grasped the interest of researchers because of the increased knowledge and understanding of the environmental subject. The vital environmental issues are air and water pollution, solid waste, water and wastewater management. This situation is resulted from the economic growth and high degree of openness which indicate that the economy is very sensitive to the globalization process.

Different means have been used in a variety of countries to provide information on environmental performance. It is important for the organizations to communicate the environmental information to the stakeholders. For this purpose different means of communication such as, press releases, newsletters, annual reports, magazines and sustainability reports can be employed. A review of the previous studies indicates the yearly reports of the firms as the key source of environmental reporting (Neu et al. 1998). According to Deegan (2002), environmental reporting provides information related to the environmental implication of their processes.

The key motivation of this study is to examine whether good corporate governance practices is significant in explaining the environmental responsibility of companies in Nigeria. Additionally, to the best of our knowledge, there is no other study yet that has tried to link corporate governance and environmental performance. It is expected that companies which comply with corporate governance practices will have higher tendencies to be more environmentally responsible. In fact, previous studies especially on the voluntary reporting

practices provided evidence those companies with certain characteristics of good corporate governance disclose more voluntary information than their counterparts.

2. LITERATURE REVIEW

This section discusses the concepts, conceptual model, theories, and empirical review of the study variables

Previous studies such as Naeser and Mohd. (2015); Larbsh (2010) confirm that a large board can increase the disclosure of environmental reporting. However, the variation with the number of directors on board produces different level of environmental disclosure. The corporate governance code in Nigeria recommends between five to 15 members which should be composed majorly of non-executive directors. Published studies that linked board size and voluntary disclosure are rather lacking. Halme and Huse (1997), found no significant association between the number of board members and the tendency for companies to report on the environment.

The Board of Directors is responsible for the day to day management of the company and has a direct responsibility to formulate and implement corporate strategy. The board, which comprises of a number of independent directors, has a greater monitoring and controlling ability over management (Fama & Jensen, 1983). The state of independence is met when a director *inter alia* is neither holding significant ownership board members, two of them are required to be independent (Bursa-Malaysia, 2006). Haniffa and Cooke (2005) found that board independence is positive and significant to corporate disclosure.

This independent variable was measured by the ratio of female directors on the total numbers of male directors in the board. It is used to examine its effect on environmental reporting. Financial Experts are important in handling complex financial issues Kalbers & Fogarty, (1993). It is very important for a director to have a very good understanding of earnings management (Xie, et al, 2001). Most of the studies focused on audit committee expertise since it falls within the recommendation of corporate governance guideline.

Environmental reporting signals the organizations' commitment to customers, shareholders and the public. In addition, environmental reporting act as internal agent of change, i.e. it helps companies to illuminate weaknesses, opportunities and set new goals. According to Parker (1986), environmental reporting allows comprehensive assessment of all corporate resources and impacts. Above all, environmental reporting can be used as a tool to legitimize companies' existence in the society (Buniamin, Alrazi, Jihari and Rahman, 2011). This is consistent with legitimacy theory, implying that companies need to appear to have a goal, which is congruent with those of the society at large. Empirically, Ahmad (2012) reports the study of 22 large multi-national corporations in Nigeria where less than a quarter made environmental disclosures. In another study of four companies in Uganda, Kisenyi and Gray (1998) observed that none of the four companies made any disclosure.

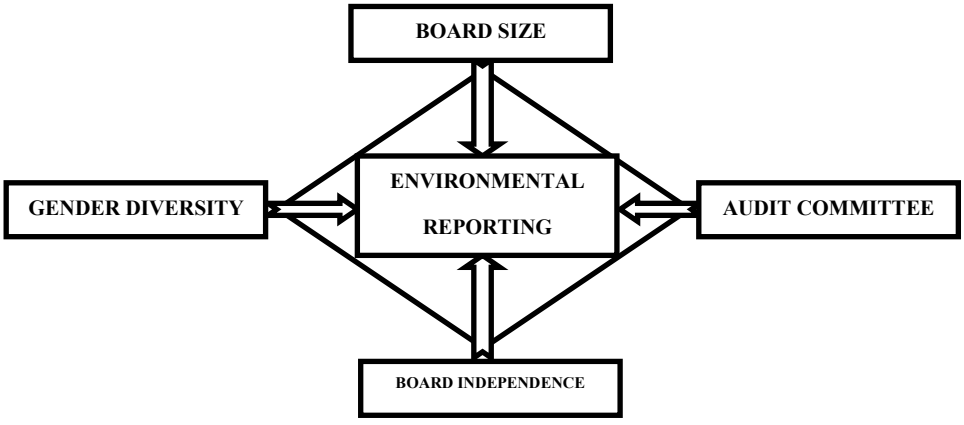

Figure 1: Conceptual Model of Corporate Governance and extent of Environmental Reporting in Nigeria

3. METHODOLOGY

Data and Methods

This research used a causal approach to investigate the causal relationship between the dependent and independent variables. Data for the study was generated from the financial statements (secondary sources) of selected manufacturing firms operating in Nigeria and are expected to disclose in their financial statements their environmental activities. The data span from 2012 to 2017 for 15 manufacturing firms (conglomerate, agriculture and consumer goods)

Model Specification

This study adopted two methods of analysis; a panel regression and dynamic panel estimation technique. Panel data is an important method of longitudinal data analysis because it allows for a number of regression analyses in both spatial (units) and temporal (time) dimensions. In Panel regression, there are three possibilities: Pooled Regression Model, Fixed Effect Model, and the Random Effects Model. These three are commonly used in empirical studies (Greene, 2008).

The dynamic panel estimation technique involves the use of a dynamic effect, in this case adding a lagged dependent variable to the explanatory variables. In addition the model is estimated using Generalised Method of Moments (GMM), which works in a similar way to Two Stage least squares, overcoming problems of endogeneity. The main theoretical reason for the dynamic panel is that it is modelling a partial adjustment based approach. If it is a partial adjustment process, the coefficient on the lagged dependent variable measures the speed of adjustment (i.e. 1 – coefficient is speed of adjustment). In addition the lagged dependent variable can remove any autocorrelation.

Arellano and Bond (Difference GMM)

The Arellano and Bond (1991), also known as the Difference GMM (Diff-GMM) is a dynamic panel model technique that first, takes into account autoregressive properties in the dependent variable. In the presence of such effects, if the data is simply estimated by the FEM or REM models, the results will be biased. Second, it accounts for the endogenous relationship between the dependent variable and an explanatory variable, which in this study is environmental reporting (ENR). Third, it is able to use internal instruments, namely, lagged dependent variable in levels for first differences, so there is no need to choose other potentially contentious external variables to serve as instruments (Drukker, 2008).

b. Arellano and Bovver (1995) & Blundell and Bond (1998) (System GMM)

The Arellano-Bond estimatorwhich is classified as (Sys-GMM) formed moment conditions using lagged-levels of the dependent variable and the predetermined variables with first-differences of the disturbances. According to Arellano and Bover (1995)] and Blundell and Bond (1998), they found that if the autoregressive process is too persistent, then the lagged-levels are weak instruments These authors proposed using additional moment conditions in which lagged differences of the dependent variable are orthogonal to levels of the disturbances to get these additional moment conditions, they assumed that panel-level effect is unrelated to the first observable first-difference of the dependent variable (Drukker, 2008).

The models are stated thus:

$$ENR_{it} = \beta_0 + \beta_1 BZ_{it} + \beta_2 GD_{it} + \beta_3 BI_{it} + \beta_4 AC_{it} + v_i + u_t + \varepsilon_{it} \quad \ldots 1$$

$$ENR_{it} = \alpha_0 + \alpha_1 ENR_{it-1} + \alpha_2 BZ_{it} + \alpha_3 GD_{it} + \alpha_4 BI_{it} + \alpha_5 AC_{it} + v_i + u_t + \varepsilon_{it} \quad \ldots 2$$

Where:

ENR_{it}= Environmental reporting of firm *i* at time *t,*
ENR_{it-1} = lag of Environmental reporting of firm *i* at time *t,*
BZ_{it} = Board Size of firm *i*at time *t,*
GD_{it} = Proportion of female directors to male director of firm *i* at time *t*
BI_{it}= Board independence of firm *i* at time *t*
AC_{it} = Audit committee of firm *i* at time t
v_i = firm fixed effect
u_t = time effect
ε_{it} = component error term
β_0 and α_0 = constant
α_1 β_1, $\alpha_2\beta_2$, α_3 $\beta_3$and $\alpha_4\beta_4$ and $\alpha_5 > 0$ the slope values of the independent variables.

Measurement of Variable: Environmental reporting of firm

The dependent variable used in this study is the Environmental reporting of firm. The dependent variable (environmental reporting) is measured in three ways; existence, quantity and quality. By existence, it is to determine that a company is actually disclosing information in the financial statement relating to environmental information. When an environmental information exists, it is coded 1 and if non-existence, it is coded 0. In terms of quantity, this is measured by examining the number sentences used to explain environmental related information (Hackston & Milne, 1996). By quality, this is based on the index score of disclosure.

Gender

This independent variable was measured by the ratio of female directors on the total number of male directors in the board. It is used to examine its effect on environmental reporting.

Board Size (BZ)

This is the number of directors on the board and it is measured by the total number of directors on each firms' board members (Ahmad, 2012).

Board Independence (BI)

This is the number of independent directors on the board and it is measured by the ratio of independent directors to total directors.

Audit Committee (AC)

The effectiveness of the audit committee is measured by the composition of the audit committee (Klein, 2002).

4. ESTIMATION AND RESULTS

Table 1: Descriptive Statistics for existence, quality and quantity of Environmental Reporting

Variable	Obs	Mean	Std. Dev.	Min	Max
ext	90	1	0	1	1
quant	90	2.922222	.6742083	2	5
qual	90	.5864667	.1322514	.364	1

Source: STAT 14 output

Table 1 shows the descriptive statistics for environmental reporting measured in three ways; existence, quality and quantity. Given that the mean value for existence is 1 with maximum and minimum values 1 respectively, it revealed that there exists environmental reporting among the firms for this study. Also, based on the quantity, the firms have an

average of 2.92 sentences to explain environmental related information in their financial statement. While for the quality of environmental reporting, the average percentage of reporting is 58.6%. This implies that the environmental reporting in Nigeria is at an average stage.

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
enr	90	.5864667	.1322514	.364	1
gd	90	.2818889	.1357789	0	.626
bi	90	.4222556	.2863712	0	1.222
bz	90	1.005322	.0696064	.845	1.114
ac	90	.7820444	.0226968	.602	.81

Table 2provides the descriptive statistics of the data series employed in the study. For almost all the variables, the mean and median values lie within their maximum and minimum values showing a good level of consistency.

Table 3: Correlation Matrix

	enr	gd	bi	bz	ac
enr	1.0000				
gd	-0.1551	1.0000			
bi	0.1511	-0.1341	1.0000		
bz	0.0361	-0.2685	-0.1231	1.0000	
ac	-0.0291	0.1407	-0.0636	0.0964	1.0000

Table 3 shows the degree of association between the variableENR and the independent variables GD, BI, BZ and AC. The results show that GD which is gender diversity and AC, audit committee negatively relate to environmental reporting. Consequently, Board independence (BI) and Board Size (BZ) show a positive effect to environmental reporting. It indicated that gender diversity correlates to environmental reporting by -15.51%, board Independence correlated positively to environmental reporting by 15.11%, board size by 3.61% and audit committee by -2.91%

Table 4: Correlation Matrix

Variable	VIF	1/VIF
gd	1.14	0.874289
bz	1.13	0.885627
bi	1.05	0.954228
ac	1.04	0.960297
Mean VIF	1.09	

Table 4 shows there is no threat of multicollinearity or independent errors, since the VIF in the table are not up to 10, hence the explanatory variables are valid for estimation.

Panel Regression Analysis

$$ENR_{it} = \beta_0 + \beta_1 BZ_{it} + \beta_2 GD_{it} + \beta_3 BI_{it} + \beta_4 AC_{it} + v_i + u_t + \varepsilon_{it}$$

Table 5: Results of Pooled, Fixed and Random Effects Regression Estimates

	Pooled regression		Random effect		Fixed effect	
	Coeff	**P-value**	**Coeff**	**P-value**	**Coeff**	**P-value**
GD_{it}	-0.1282	(0.250)	-0.2425	(0.175)	-0.3860	(0.012**)
BI_{it}	0.0625	(0.216)	0.0474	(0.401)	0.0222	(0.692)
BZ_{it}	0.0337	(0.875)	-0.0279	(0.914)	-0.1228	(0.558)

AC_{it}	0.0214(0.973)		0.5120	(0.168)	0.9319(0.139)
CONST	0.5790	(0.263)	0.2624	(0.416)	0.0805(0.872)
R^2	0.0416		0.0333		0.0238
N	90		90		90
F*	0.92	(0.4544)	5.65	(0.2268)	2.45(0.0537)
Corr (U_i,X)	0		0		-0.3709
Lagrangian Multiplier test		9.70 (p-value = 0.0009**)			
Hausman Test				8.46 (P-value 0.0760***)	

Dependent variable:$(ENR)_{it}$

Note: * ** *** show significance at 1%, 5% and 10% respectively

The data and models for this study were subjected to sensitivity and robustness tests. The results indicate that they have a correct functional form, serially uncorrelated, normally distributed (p-value, 0.9123) and homoscedastic (p-value, 0.2710). Table 5 shows the summary of results for the pooled regression, random effect and fixed effect models. The Hausman specification test in Table 5 shows that the fixed effect model is a better estimator than the random effect model since the Hausman test result shows a high value of 8.46 of the Chi-square, with a p-value (0.0760) higher than 0.10 significance level. The pooled regression model was found to be less than the random effect model because the Lagrangian Multiplier testindicated that there *a panel effect* between the random and the Pooled regression model because the value 9.70 and p-value 0.0009 is below the significant level of 0.05. Therefore, in this study, the result of the fixed effect is adopted.

The result shows that gender diversity (GD) influences environmental reporting (ENR) negatively with coefficient value of -0.380 and the p-value of 0.012. This means that the lower proportion of female directors to male directors has significantly decreased the level of environmental reporting of the selected manufacturing firms under study.

The effect of board independence (BI) on environmental reporting (ENR) is positive with coefficient value of 0.222 and the p-value of 0.692. This implies that the more the board is independent to carry out their functions without interference, the more they are empowered to report environmental activities in the selected manufacturing firms under study.

The size of the board (BZ) indicated that it has a negative effect on environmental reporting (ENR) with coefficient value of -0.1228 and the p-value of 0.558. This result shows that the board size of the selected firms under study does not positively influence environmental reporting. This means that fewer board sizes can bring about inadequate reporting while large board size can result to adequate environmental reporting.

The audit committee (AC) on environmental reporting (ENR) is positive with coefficient value of 0.9319 and the p-value of 0.139. This implies that a better and well organized audit committee (AC) the more likely for effective environmental reporting in the selected manufacturing firms under study.

Table 6 shows the estimated coefficients for Arellano and Bond and Arellano and Bover/ Blundell and Bond. The value of the AR (1) for both DIFF-GMM and SYS-GMM indicated that there is the absence (or zero) correlation between the lagged dependent variable; environmental reporting (ENR) and the dependent variable. This is seen from the value of AR (1); -1.5148 with p-value of 0.1298 for Diff-GMM and -1.722 with p-value of 0.0851 for Sys-GMM. The zero correlation means that both methods require no second order serial correlation test. For the purpose of this study, the Diff-GMM is adopted because the data used for the estimation met the criteria of small time series and many individual units, i.e. manufacturing firms. Also, the Sargan test imply that the null hypothesis which is over-

identifying restrictions are valid is upheld. The p-values of the Sargan test for Diff-GMM and Sys-GMM are 0.1209 and 0.0613 respectively are higher than the 0.05 level of significance.The p-value of the F-test, is greater than the level of significance, which indicated that the model may not be a good fit with variables showing a linear dependency.
The lagged effect of environmental reporting (ENR) on the current environmental reporting is negative and insignificant at 5% level. This de-emphasizes the dynamic nature of environmental reporting in the manufacturing industry in Nigeria. This means that the present value of environmental reporting does not dependent on the effect of the past value. The consistent decrease in the environmental reporting of manufacturing firms is not affected by the environmental reporting of the previous year's reporting. This means that whatever is reported in the current year was not predicted by what happened the previous years.

Table 6: Dynamic Panel Regression Analysis

Variable	Diff-GMM	Sys-GMM
ENR_{it-1}	-0.2154 (0.147)	0.0573 (0.584)
GD_{it}	0.1485 (0.616)	0.0864 (0.702)
BI_{it}	0.0360 (0.633)	0.0121 (0.882)
BZ_{it}	0.1125 (0.817)	-0.0244 (0.947)
AC_{it}	1.5637 (0.089)	1.4995 (0.059)
Constant	-0.6987 (0.464)	-0.5752 (0.401)
F-test	4.60 (0.4663)	3.78(0.5817)
N	75	75
AR(1)	-1.5148 (0.1298)	-1.722 (0.0851)
AR(2)	-1.5213 (0.1282)	-1.260 (0.2077)
Sargan-Hansen J-Test	14.04 (0.1209)	21.63 (0.0613)

Source: STATA 14 output; P-value in ( ); ** Significant at 0.05 and
ENR_{it}= dependent variable
AR(1): Autocorrelation test

Gender diversity (GD) influences environmental reporting (ENR) positively with coefficient value of 0.1485 and the p-value of 0.536. This means that the higher proportion of female directors to male directors increases the level of environmental reporting of the selected manufacturing firms under study. The effect of board independence (BI) on environmental reporting (ENR) is positive but insignificant. Also, the size of the board (BZ) indicated that it has a positive effect on environmental reporting (ENR) while audit committee does positively influence environmental reporting.

5. CONCLUSSION AND RECOMMENDATION

This study has contributed to literature on corporate governance and environmental reporting practices in Nigeria. The study confirmed the significant relationship between board size, board independence, audit committee, gender and environmental reporting. The findings from this research will impact the essentials of integrating environmental consideration to investing community in their decision making process. Practitioners may also be challenged to be more environmentally responsible since the public value reporting as a noble attribute. It may therefore be concluded that the efforts made by the Nigerian companies in environmental disclosure are noteworthy and deserve commendation but that efforts in terms of quantity and quality of disclosure were generally less satisfactory.

The following are the recommendations based on the findings of the research.

1. The research revealed that companies in Nigeria have demonstrated very little effort in environmental performance and reporting. The little efforts are not even reflected in the

accounting records for stake holders. Companies should endeavour to show records of environmental activities in their accounts.

2. Regulatory bodies in Nigeria should develop a standard to guide the practice of environmental performance and reporting.
3. Companies in Nigeria should also show data on environmental expenditure, environmental costs charged to income in the notes to the accounts in their annual reports.

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Impact of International Financial Reporting Standards (IFRS) on Foreign Direct Investment (FDI) in Nigeria

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Abstract

This paper examines the impact of IFRS adoption on foreign direct investment (FDI) in Nigeria. Nine deposit money banks (Access Bank, EcoBank, Diamond Bank, FBN Holdings, FCMB Group, Guaranty Trust Bank, Skye Bank Plc, Union Bank of Nigeria, United Bank of Africa, Zenith Bank), two large firms (Lafarge Cement and Dangote Cement) from the construction industry and two large firms (Forte Oil and Oando Oil) from the oil and gas industry were selected for this study. FDI was measured using foreign assets as a ratio of total assets. IFRS adoption was measured as a dummy variable for sample period 2007 to 2017. This study controlled for leverage and past year FDI. Several analyses were performed; descriptive statistics, multicollinearity, unit root tests, and panel fixed effect. Findings revealed that IFRS adoption has positive impact on FDI of the selected listed firms in Nigeria. An increase in IFRS adoption will result in 4.58% increase in FDI of listed firms with foreign investments in Nigeria. The findings also revealed that LEVERAGE, past year FDI do not affect FDI of listed firms in Nigeria. These results have practical implications that increase in FDI associated with IFRS adoption.

Keywords: FDI, IFRS Adoption, Leverage, Nigeria

1. Introduction

Past studies on foreign direct investments have submitted that market size, purchasing power, trade effect, agglomeration effect, labour cost, EU accession, degree of freedom, degree of research quality, geographical distance, and resource abundance are factors that determine a country's level of foreign direct investment (Bevan & Estrin, 2004, Yin, Ye & Xu 2014,Tokunaga & Iwasaki, 2017).The determinants of foreign direct investments have been studied mostly at country-level with less focus on the firm-level foreign engagement. Theories on foreign direct investment; economic theory (Vernon, 1966), product cycle hypothesis (Vernon, 1979), theory of internationalisation (Rugman, 1981), and Eclectic paradigm theory (Dunning, 1993), have focused more on a country's involvement in FDI with less attention on firm's involvement in foreign subsidiary investment. One major gap in these models is how they have been applied to the level of foreign direct investments of corporate firms. For example, the eclectic paradigm theory of Dunning (1993) has the assumptions that market penetration, market accessibility, privatization, political stability and economic balance are drivers of a nation's FDI. However, this theory is limited to explain the effect of a global financial regulatory framework to the success of FDI. Evidence has shown that countries cannot experience success in FDI is regulatory framework is lacking (Asiedu, 2006; Sauvant& Chen, 2014; Pandey, Rovetta& Chen, 2019).

Although, despite the submission of these studies that regulatory framework is important for FDI growth and successes, most of the regulated frameworks are FDI related, sourcing framework, enhancement, administrative and tax regulation, openness regulation. Regulatory

framework relating to the accountability and transparency of FDI such as the International Financial Reporting Standards (IFRS) effect on FDI among Multinational companies(MNCs) is still missing in most FDI studies.

Moreover, empirical findings on FDI have focused on government outflows and inflows, proceeds from foreign investments, and the perceived behaviour of multinational corporations towards foreign direct investments. Few studies in the Nigeria setting have focused on the perceived implication of IFRS on FDI and not in the actual performance of firms (Madawaki,2012; Okpala, 2012; Adetula, Nwobu& Owolabi, 2014; Efobi, Nnadi, Odebiyi & Beecroft, 2014; Nnadi & Soobaroyen, 2015; Jinadu, Ojeka &Ogundana, 2016). For example, Okpala (2012) used questionnaires to examine the perceived effect of IFRS adopters on FDI in Nigeria by sampling investment analysts. Okpala (2012) found that IFRS is perceived to promote FDI inflows into the country. Jinadu et al. (2016) adopted questionnaire and measured FDI using the users of annual reports and found positive relationship between FDI and adoption of IFRS in Nigeria. In contrary, Efobi et al. (2014) found IFRS adoption not significant determinant of FDI in Nigeria when FDI is measured as a percentage of GDP. Efobi et al. (2014) argued that IFRS adoption affects FDI when institutions are moderator for. The study of Efobi et al. (2014) is limited as FDI is measured at country level and not at firm's level. Despite much of these studies in developed and developing countries, there is less evidence on how the adoption of IFRS has affected the performance of foreign assets and subsidiaries of adopting firms in Nigeria. Whether the adoption of IFRS has effect and to what extent it affects FDI of adopting firms is the thrust of this paper. This study aims to investigate theoretically the role of IFRS in foreign investments of listed firms in Nigeria.

The remaining sections of this paper are organized as follows: Section two takes a brief review on past literatures on nexus between FDI and IFRS adoption. Section three presents the methodology. Section four presents the analyses and results while section five concludes the paper.

2. Literature Review

There are substantial number of alternative assumptions, principles and methods available to a reporting entity in the preparation and presentation of its financial statements. For example, there are many ways of calculating depreciation such as straight-line, reducing balance, sum of year's digit, and revaluation, inventory valuation could be done through FIFO, LIFO, and averages. It is therefore worthy to note that the assumption, principle and method adopted by a reporting entity significantly affects its results of operations, financial position and change thereof. To minimize such disparities in financial reporting, the General Accepted Accounting Principles (GAAP) was adopted, which is describe as the framework of financial reporting. Zhang (2005) confirms that the provisions of GAAP differ somewhat from the international financial reporting standards.

The scope of the existing financial reporting framework deals with the objectives of financial statements; qualitative characteristics of financial statements; elements of financial statements; recognition of the elements of financial statements; and the concept of capital and capital maintenance (NASB, 2010).

A move towards a single set of global accounting standards is expected to lead to greater efficiency and internal control improvements for multinational companies. To make this move and to realize benefits, a number of financial reporting processes will likely have to be evaluated and/or fine-tuned.

According to Marve (2001) and Skinner (1998), the key considerations are:

A. Internal Processes and Statutory Reporting Include:

1. Close and Consolidation: A move to FRS may require changes in charts of accounts to ensure relevant information is captured appropriately, it could involve changing current corporate consolidation processes, or adjusting the existing close calendar.
2. Management Reporting: It is likely that metrics used as the basis for measuring performance in management reporting will be impacted by a change to IFRS. There may be a need to develop new performance metrics to measure performance and benchmark against competitors.
3. Internal Controls: A move to a new basis of accounting, including a shift from rules to principles and changes to financial systems, will affect the internal control environment. Documentation will need to be updated and processes put in place to mitigate new risks.
4. Statutory Reporting: For many U.S-based multinational companies, IFRS statutory reporting is already a reality at some subsidiaries. Historically, statutory reporting has primarily been accomplished at international locations and has received less attention at a corporate level.
   However, in an IFRS environment, the potential for adoption of a consistent set of accounting standards at many locations, causes a need for consistent application throughout the organization - it also creates an opportunity for standardizing and centralizing statutory reporting activities.

Changes in accounting policies and financial reporting processes can also have a significant impact on a company's financial systems and reporting infrastructure. These changes may require some adjustments to financial reporting systems, existing interfaces and underlying databases to incorporate specific data to support IFRS reporting. Companies will need to collaborate with their IT counterparts to review systems implications of IFRS. Zhang (2005), identified the key issues in technology infrastructure as:

i. Upstream Systems: The transition from local GAAPs to IFRS can often result in additional reporting requirements in complex areas such as taxes, financial instruments, share- based payments and fixed assets, to name a few. Not only may system adjustments be necessary to address these complex areas, but also modifications to the interfaces between these source systems and the general ledger may also be required. In instances where this information is currently being gathered through the use of complex spreadsheets, the adoption of IFRS may serve as a catalyst that some companies may need to bring about long overdue updates to these processes and make critical adjustments for supporting source systems.
ii. General Ledger: IFRS conversions may require changes to the chart of accounts and modifications to capture IFRS-specific data requirements. In addition, during the transition to IFRS, general ledger reporting will likely need to accommodate multiple ledgers (under U.S. GAAP and IFRS) and

the maintenance of multiple ledger structures during transition will require planning. In the long term however, conversions can also provide the opportunity to streamline your financial reporting systems by reducing the number of general ledgers previously required under a local GAAP reporting structure.

iii. Reporting Data Warehouse: Current systems may not have the functionality to handle IFRS requirements, so changes in financial information requirements due to IFRS should be identified - and the impact of these requirements on the existing data models should be assessed. Valuation systems and actuarial models will also need to be evaluated to accommodate IFRS changes.

iv. Downstream Reporting: The conversion to IFRS can also result in changes to the number of consolidated entities, mapping structures and financial statement reporting formats, all of which will require adjustments to the consolidation system. External reporting templates will need to be evaluated to identify changes necessary to support increased or different disclosures under IFRS.

Organizational changes that are this pervasive require planning, communication, and training throughout the organization. Another important aspect of the transition process is considering organizational issues that, when identified up front, can help pave the way and support the eventual IFRS implementation. Key considerations for human resources and finance leaders to review include:

1. Organizational Readiness: An important step to assessing the impact of IFRS is to understand the company's current awareness of IFRS and determine what type of education program will be needed. In addition to having an internal communication strategy, other awareness-building activities, such as executive briefing sessions and workshops, should also be considered to help develop consensus regarding IFRS initiatives.
2. Training and Learning: IFRS training should extend beyond the technical accounting personnel and may pose a significant challenge for organizations. A conversion to IFRS will require stakeholders throughout the company to be trained appropriately. This will require training or workshops to address ongoing learning needs.
3. Stakeholder Communication: Converting to IFRS also means anticipating the information and communication needs of external stakeholder groups, including the board, shareholders, lenders, and analysts, among others. For example, financial knowledge for board members related to IFRS will need to be supported.

The organizational action steps as indicated by Lev (1999) are:

i. Conduct a key stakeholder analysis. IFRS can have many impacts on an organization. Identifying target audiences and stakeholder groups impacted by IFRS and assessing their current level of understanding and communication needs Es an important step in planning for the impacts of IFRS.

ii. Develop IFRS communication and training plans. Communication and training will be an essential element in effectively planning for and managing the necessary changes resulting from an IFRS conversion. Establishing a proactive plan to address the near and long-term training and communication requirements for each stakeholder group can further support the overall IFRS plan.

The international Financial Reporting Standards (IFRS), is regarded as a global GAAP and a set of principles –based and globally accepted standard published by the International Accounting Standards Board (IASB) to assist those involved in the preparation of financial statements all over the world to prepare and present high quality, transparent and comparable financial statements. According to Akinmutimi (2011), the major strength of IFRS is that it offers a lot of benefits to corporate and public entities in terms of cost; easy consolidation of financial statements; better management control of internal consistencies of reporting; improved access to global financial capital markets; ability of international investors to make meaningful comparisons of investment portfolios in different countries and promotion of trade within regional economic groups. According to Izedonmi (2011), the need and feasibility for a uniform global financial reporting framework has been on for many years. He identified the following factors supporting the adoption of IFRS:

- Continuous integration of world economy;
- Increased interdependence of the international financial markets;
- Absence of barriers of capital flows across national boundaries;
- Increased mobility of capital across national boundaries;
- Multiple listing by companies in capital markets within and outside their home jurisdiction;
- Continuous demand by stakeholders for quality information and greater disclosures.

There are however some inherent problems with aligning with international accounting standards, Ukpai (2002) pointed out that international accounting clearly has a language problem. The word “asset” in French may also connote “active”. The German language has no reasonable single-word counterpart for the term fair. Since accounting itself is not readily translatable into Dutch, people in Holland simply use the English word “accounting” as part of their native language. Accounting words are far from universally comprehensible. Moreso, government policy may not be in support of international standards. Adams (2004) claimed that where an accounting standard conflicts with government policy, the standard is revised. For instance, LIFO is not allowable for tax purpose in stock valuation. Another problem inherent with the adoption of IFRS is the universal tendency to resist change. Too often, co-operation comes only from compromise and sometimes to the detriment of quality (NASB 2010).

After few years of vacillation, Nigeria in 2010 formally decided to align her financial and accounting computations and reporting standards with what obtains in most futuristic economies across the world by setting January 1, 2012 as the commencement date for corporate and public entities to adopt the IFRS. Having weighted the challenges and benefits associated with IFRS, some reporting entities in Nigeria especially those with global operations such as Guaranty Trust Bank, Access Bank, EcoBank, and Oando have taken steps toward its development and implementation. To facilitate the adoption of IFRS the NASB, investors, commercial enterprises and government regulatory agencies, in collaboration with other professional bodies involved in financial reporting have organized series of workshops and seminars across the country as part of their efforts to create awareness about IFRS project conversion. The implications of this decision are as numerous as they are profound. Akinmutimi (2011), stated that corporate entities need to build capacity to drive the process and revisit their operational and internal control systems. Moreso, the laws need to be amended and the transition processes need to be handled efficiently, effectively and professionally in order to sustain the confidence of users of accounting services on the

confidence of users of accounting services on the skills of professional accountants. Gambari (2010) stated that the successful adoption of IFRS entails assessing technical accounting, tax implications, internal processes, and statutory reporting, technology infrastructure, and organizational issues.

There has been a push towards the adoption of IFRS developed and issued by the International Accounting Standards Board (IASB) at the beginning of this decade. The increasing growth in international trade, cross border financial transactions and investments which unavoidably involves the preparation and presentation of accounting reports that is useful across various national borders, has brought about the adoption of IFRS by both the developed and developing countries (Armstrong et al., 2007). The process of adoption received a significant boost in 2002 when the European Union adopted a regulation 1606/2002 requiring all public companies in the territory to convert to IFRSs beginning in 2005 (Iyoha and Faboyede, 2011). A number of African countries including Nigeria, Ghana, Sierra Leone, South Africa, Kenya, Zimbabwe and Tunisia among others have adopted or declared intentions to adopt the standards. In particular, Nigeria adoption of IFRS was launched in September 2010 by the Honourable Minister, Federal Ministry of Commerce and Industry – Senator Jubriel Martins-Kuye (OFR) (Madawaki, 2012). The adoption was planned to commence with Public Listed Companies in 2012 and by end 2014 all stakeholders would have complied. As at today, banking sector has fully implemented. This is considered a welcome progress for developing countries especially some of those that had no resources to establish own standards.

There are proponents as well as opponents who have arguments for and against the global adoption of IFRS. According to Barth (2007), the adoption of a common body of international standards is expected to have the following benefits: lower the cost of financial information processing and auditing to capital market participants as users, familiarity with one common set of international accounting standards instead of various local accounting standards by Accountants and Auditors of financial reports, comparability and uniformity of financial statements among companies and countries making the work of investment analysts easy, attraction of foreign investors in addition to general capital market liberalization. Ball (2006) stated that many developing countries where the quality of local governance institutions is low, the decision to adopt IFRS will be beneficial. Lipsey and Chrystal (2003) noted that FDI often generates somewhat higher-paying jobs than might otherwise be available to local citizens, it generates investment that may not be possible with the local resources only, it links the recipient economy into the world economy in manners that would be hard to achieve by new firms of a purely local origin. According to Lipsey and Chrystal (2003) the FDI alters country's comparative advantages and improves its competitiveness through technology transfer and effects myriad externalities, domestic investment which can alter a country's volume and pattern of trade in many income enhancing directions. Countries that suffer from corruption, slow- moving, or ineffectual government are likely to resistant the change (La Porta et al., 1999) but in such countries, the opportunity and switching costs are lower which makes the possibility of adopting IFRS advantageous. Kumar (2007) the foreign capital has the potential to deliver enormous benefits to developing nations. in addition to helping bridge the gap between savings and investment in capital-scarce economies, capital often brings with it modern technology and encourages development of more mature financial sectors. Capital flows have proven effective in promoting growth and productivity in countries that have enough skilled workers and infrastructure. Some economists believe capital flows also help discipline governments' macroeconomic policies

GAB (2012) stated that one of the demerits that will be experienced by countries adopting of IFRS include: forgoing the benefits of any past and potential future innovations in local reporting standards specific to their economies. Single set of accounting standards cannot reflect the differences in national business practices arising from differences in institutions and cultures (Armstrong et al., 2007). The Nigeria accounting regulatory includes: The Companies and Allied Matters Act 1990 which stipulate the format, content and scope of the financial statements, disclosure requirement and auditing. It also requires that financial statements of companies comply with statements of accounting standards (SAS) issued from time to time by NASB and audit carried out in accordance with generally accepted auditing standards. Secondly, Nigerian Accounting Standards Board (NASB) Act No.22 of 2003 as the only independent body responsible for developing and issuing SAS for preparers and auditors of financial statements of business concern and government agencies (Madawaki, 2012). Although many countries have faced challenges in their decisions to adopt IFRS, its wide spread adoption has been promoted by the argument that the benefits outweigh the costs (Iyoha and Faboyede, 2011). The existing theoretical models imply that FDI is beneficial for host country's economic growth. According to traditional economic theory (law of diminishing returns), FDI will tend to concentrate in less developed countries, where there exist greater opportunities to achieve higher returns. In order for FDI to become productive in developing countries, the following conditions should exist: (i) the existence of a minimum threshold level of human capital (Borensztein et al, 1998), improved domestic infrastructures (de Mello, 1999), and a developed local financial system (Alfaro et al, 2006). Out of all, the last prerequisite seems to have more weight in order for FDI to flow into any developing country and have a measurable impact on economic growth. Lack of these requirements has resulted in imbalanced in the FDI distribution across many developing countries. Some of the countries are facing difficulties in attracting foreign investors. FDI is considered as an important channel for direct technology distribution and may be the major vital conduit for technology transfer because of the scarcity of financial resources and the urgent need for reconstruction in many developing countries (Hossein&Yazdan, 2012). Within this framework it is expected that FDI will contribute to economic growth, indirectly by accelerating the diffusion of general-purpose technologies (Hossein&Yazdan, 2012).

Theoretical Framework on Foreign Direct Investment

According to Kumar (2007), FDI which involves building long-term relationships with enterprises in foreign countries can be made in several ways. First, and most likely, it may involve parent enterprises injecting equity capital by purchasing shares in foreign affiliates. Second, it may take the form of reinvesting the affiliate's earnings. Third, it may entail short- or long-term lending between parents and affiliates.

A number of theories have been developed to explain the determinants of FDI. Extensive reviews of the main FDI theories and determinants of FDI range from the economic theories of Vernon (1966), the internationalisation theories of Rugman (1981) and Dunning's (1993) eclectic paradigm. However, the main theory adopted in this paper are drawn from Dunning (1977; 1993) who suggested that the main factors that drive FDI inflows have been the need to secure market access, the opportunities presented by large scale privatization processes and the degree of political and economic stability.

The eclectic paradigm of Dunning, also known as OLI, proposes that the undertaking of FDI is determined by the realization of three groups of advantages and they are:

Ownership – specific advantages – these arise from the firm's size and access to markets and resources, the firm's ability to coordinate complementary activities like manufacturing and distribution and the ability to exploit differences between countries.

Locational advantages – this includes differences in country natural endowments, transport costs, macroeconomic stability, cultural factors and government regulations. These help to determine which countries are host to MNEs foreign production.

Internationalisation incentives – this arises from exploiting imperfections in external markets. These include the reduction of uncertainty and transaction costs in order to generate knowledge more efficiently and the reduction of state – generated imperfections such as tariffs, foreign exchange controls and subsidies.

Issues and Implications of IFRS on FDI and the Economy

The IFRS is a global GAAP, setting principles–based and globally accepted standard published by the IASB to support those who adopted in the preparation and presentation a high quality, transparent and comparable financial statements that will aid easy interpretation. According to Okoye and Akenbor (2012), the perceived challenges to be presented by IFRS adoption and implementation includes: the intrinsic problems of aligning with IFRS pointed out that international accounting clearly has a language problem (Ukpai, 2002), Adams (2004) claimed that where an accounting standard conflicts with government policy, the standard is revised such as the LIFO method of stock valuation not allowable for tax purpose in Nigeria, Another problem inherent with the adoption of IFRS is the universal tendency to resist change (NASB 2010). Gambari (2010) noted that the successful adoption of IFRS entails assessing technical accounting, tax implications, internal processes, and statutory reporting, technology infrastructure, and organizational issues. FDI has been defined in several ways.

To be categorized as a multinational enterprise for inclusion in FDI data, the parent must hold a minimum equity stake of 10 percent in the affiliate (Kumar, 2007). Garkovic and Lavin (2002), noted that economic rationale for offering special incentive to attract FDI frequently is derives from the belief that foreign investment produces externalities in the form of technology transfer and spillovers. DeGregorio (2003), while contributing to the importance of FDI noted that it allows a country to bring in technologies and knowledge that are not readily available to domestic investors and increases productivity throughout the economy (Oyetoye et al., 2011). Jeffrey and Spaulding (2005) also stated that FDI advantage includes; circumventing trade barriers, hidden and otherwise making the move from domestic export sales to a locally-based national sales office and capability to increase total production capacity Opportunities for co-production, joint ventures with local partners, joint marketing arrangements. In recent times, it was revealed that FDI in Nigeria have been declining (NASB, 2010). According to NEF (2011) the trend shows that the value declined from $6.9 billion in 2007 to about $4.602 billion in 2008 and $3.94 billion in 2009 and $6.1b in 2010. The decline in 2010 was due to ongoing uncertainty related to the proposed Petroleum Industry Bill (PIB) as well as political unrest in some sections of the country. The new FDI was estimated at $6.8bin 2011. Nigeria is the third largest recipient of FDI in Africa after Angola and Egypt.

3. Research Methodology

A small panel data was employed for this study, making it a longitudinal research. Fifteen (15) firms were sampled for this study for the period 2007 -2017. The study sampled only firms that engage in foreign investments through their disclosure of foreign assets in the annual reports. The analysis of FDI firms in pre-IFRS adoption and Post-IFRS adoption using the roadmap to the adoption of IFRS in Nigeria was done. According to the roadmap, all public listed entities and significant public interest entities were mandated to begin transition in 2010 while year 2012 is the official IFRS reporting date (Ayuba, 2010). Following this reporting date, the sampled period was divided into Pre-IFRS adoption (2007-2011) and Post-IFRS adoption (2012-2017) to know the pattern of FDI in Nigeria among sampled firms. All sampled firms in this study are public listed entities.

Measurement of Variables

IFRS Adoption
This was measured using dummy. For pre-IFRS adoption period, it was denoted as 0, while 1 represented post-IFRS adoption.

Leverage
This was used as a control variable. It is measured using total debt ratio. That is, the ratio of total debts to total assets. Several studies have linked leverage to FDI (Feldstein, 1994; Maes, Dewaelheyns, Fuss & Van Hulle, 2019; Nicodano& Regis, 2019).

Foreign Direct Investment (FDI)
This study measures FDI of firms using the ratio of foreign assets to total assets of the firms. There is evidence that IFRS adoption results in asset revaluation in firms' host and foreign subsidiaries (Christensen& Nikolaev, 2013; Azevedo,Oliveira & Couto, 2019), which can lead to either revaluation surplus or loss. This implies that there is a link between IFRS adoption and Foreign assets investment. For example, IFRS 8 stipulates that firms have the option to disclose geographical earnings, triggering discontinuance in disclosure. Hope and Thomas (2008) argued that firms that do not disclosure geographical earnings experience lower foreign profit margins and ensuring managers to inefficiently expand foreign operations.

4. Result and Discussion of Findings

Table 1: Descriptive Statistics

	FDI	IFRS_ADOPT	LEVERAGE
Mean	13.56386	0.859649	16.14974
Maximum	90.14000	1.000000	64.09000
Minimum	0.000000	0.000000	0.000000
Std. Dev.	17.97932	0.348884	12.22687
Skewness	2.397374	-2.070813	1.612351
Kurtosis	9.105208	5.288265	5.844923

Jarque-Bera	286.2500	106.3488	87.83836
Probability	0.000000	0.000000	0.000000
Observations	114	114	114

Note: FDI is measured as ratio of foreign assets to total assets; IFRS Adopt is measured using dummy (denoted as 1 for year of adoption and denoted as 0 for the year of non-adoption). Leverage is measured by the ratio of total debts to total assets.

Table 1 shows the descriptive statistics of foreign direct investments, IFRS adoption and leverage among the sample listed firms. The maximum FDI in billion is 90.14. There is also an evidence of high leverage with a maximum of 64.09. the Skewness of the series shows normality as the values for FDI, IFRS Adoption and leverage are all above +3 and below -3. The mean of IFRS Adoption indicated that IFRS was adopted by over 85.96% of the period under study across the sampled firms.

Table 2: Correlation Analysis

	FDI	IFRS_ADOPT	LEVERAGE
FDI	1		
IFRS_ADOPT	-0.0098	1	
LEVERAGE	-0.0706	0.1185	1

Table 2 presents the correlation between the variables of measurement. It also serves to confirm whether there is any serious problem of multicollinearity. Hair et al. (2017) stated that a correlation coefficient value of 0.8 and above indicates the presence of multicollinearity. Based on the values in table 2, there is no multicollinearity problem. Results showed that there is negative correlation between IFRS Adoption and FDI. This may confirm that IFRS adoption may help to reduce CEO or managerial agency problem involves foreign assets investments (Hope & Thomas, 2008; Márquez-Ramos, 2011; Amidu& Haruna, 2019). DeFond, Hung and Li (2011) submitted that IFRS adoption improves reports comparability thereby reducing information acquisition for the international or foreign market. Results equally confirm that IFRS adoption triggers high debt profile for firms. The cost of IFRS reporting and report filling has reduced the number of public presentations of annual reports and increased cost of equity financing (Habib, Bhuiyan & Hasan, 2019; Opare, Houqe& van Zijl, 2019), and thus undermine the efficiency of the financial system, contributing to the weak form of efficient market hypothesis.

Table 3: Regression Model

Dependent Variable: FDI	Coefficient	Probability	Decision
Constant	4.962131	0.1039	Not Significant
	(1.6521)		
FDI-1	0.107672	0.2395	Not Significant
	(1.1883)		
IFRS Adoption	4.584605	0.0993	Significant (P < 0.10)

	(1.6751)		
Leverage	0.187270	0.2423	Not Significant
	(1.1813)		
R Square	**0.8292**		
Adjusted R Square	**0.7821**		
F statistics	**17.6027**		
Prob. (F statistics)	**0.0000**		
Durbin Watson	**1.1017**		
Hausman Test**Fixed**			

Note: FDI is measured as ratio of foreign assets to total assets; IFRS Adopt is measured using dummy (denoted as 1 for year of adoption and denoted as 0 for the year of non-adoption). Leverage is measured by the ratio of total debts to total assets. T-statistics are in parentheses. The sample period is 2007-2017.

The paper analysed the relationship between IFRS adoption and FDI among listed firms in Nigeria using small panel data estimation procedure. The results as shown in Table 3 showed that IFRS adoption is significant at 10 percent level. An additional year increase in the adoption of IFRS will results in 4.58 percent increase in foreign assets of the sampled listed firms. Leverage and Previous Year FDI have positive effects on FDI but are not significant determinants. Adjusted R square has a value of 0.7821, indicating that IFRS Adoption can explain significantly 78.21 percent variations in FDI (measured as foreign assets to total assets). The model connecting the nexus between IFRS Adoption and FDI is significant given the probability value of the F-statistics of 0.000 ($p<0.01$) and the Durbin Watson of 1.1017 is not less than one. Durbin-Watson statistic helps to detect the presence of autocorrelation in the residuals from a regression analysis.

IFRS adoption is a source of global comparable financial information that has helped to secure the interest of investors, ensured management efficiency, economic efficiency and international recognition in the global markets. The Roadmap of IFRS adoption in Nigeria has affected the value of firm. Responding to the limitation of research on IFRS in the Nigerian context, this study examined the effect of IFRS adoption on firms' foreign asset investments as foreign direct investments for from firms.

5. Conclusion and Recommendations

The findings of this study revealed that IFRS adoption had a positive significant effect on FDI of listed firms in Nigeria, which is in line with Okpala (2012) and Jinadu, Ojeka and Ogundana (2016). This indicates for Nigerian listed firms that have foreign assets and investments have possible hedging strategies such as fair value hedge, cash flow hedge and net investment hedge on foreign assets. It may also imply that countries in which Nigerian listed firms have foreign investments do have hyper-inflationary currency which increases the presentation currency of foreign investments as at the end of the firm's reporting period. High inflation increases the value of interest-paying assets. Theoretically, this study contributes to the theory of Information Asymmetry that positive nexus implies that the risk of investing in the sampled firms is low as the firms may experience low cost of doing business thereby increasing the value of their foreign assets. Practically, this study gives potential investors

that their investments in firms with foreign subsidiaries are less risky and could experience increase in the wealth. Policy makers can also regulate the countries in which firms should invest and make it locally mandatory for firms to report geographical and foreign profits. For managers, they must reduce their firms' investment in foreign countries if large percentage of their executive compensation is attributed to foreign investments. This may increase managerial agency problem and may endanger the firm to stiff local competition.

In terms of limitation, this study did not include all possible measures or factors of IFRS adoption and FDI. Exchange differences (Loss or Profit) following the restatement of foreign currency transactions in the entity's functional or host currency may be another measure of foreign direct investment. Further use of IAS 21, IAS 29 on foreign currencies, IFRS 7 and 9 each may be potential measures of IFRS adoption. Hence future studies could further examine each of the IFRS on foreign assets and exchange differences, which would further help to understand which amongst the standards effectively favour foreign investments.

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EXECUTIVE PAY STRUCTURE AND PROFITABILITY OF SOME SELECTED NON-LIFE INSURANCE COMPANIES IN NIGERIA

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Abstract

The Organisation Executive pay has being a subject of public debate in recent years. The debate arose from the proportional amount that executive pay represents in the organization total earnings and its influence on profitability. More so the value of human capital is not reported in annual reports of companies. Against the unsettled direction of influence across different industries, this study examined the extent to which the pay of the top managers in Nigerian non-life insurance companies is reflective of the companies' profit. Five top and lowest performing companies were selected based on sales and profitability. A panel Ordinary Least Square technique was conducted for 10- year period of 2007 to 2017 on all three probability indicators- Return on Assets (ROA), Return on Equity (ROE), and Return on Investment (ROI). It was found that the fixed effect was more applicable to the regression analysis. The result predicted positive and significant effect on the three profit indicators but very weak correlation coefficients, implying that executive pay does not have strong association with profitability. It is suggested that the human resources policy of insurance companies should pay more attention in hiring top flight executives with commensurate pays and benchmarking average pay in the industry to push profitability levels.

Key Words: Executive pay, Non-life insurance companies, Profitability

I. Introduction

The Organisation Executive Pay has been a subject of public debate and academia in recent years (Edmans & Gabaix, 2016; Adeoye, 2019). What accrues to the top executive of companies in terms of pay has been a subject of public discourse in recent years. The controversies centred on the amount paid to the executive by companies in relation to the companies' performance; who determines its pay; how competitive is the pay; and how the pay reflect a basis for value increase to the company as initiated by the top executive of companies and the pay, in relation to shareholders wealth (Hubbard & Pallar, 1994; Armstrong, 2009; Magee, 2014; Akewushola & Saka, 2018). Performance and job complexity of executives are expected to be the basis of pay (Syed & Khalid, 2007). In spite of the importance and value addition of human capital skills and its involvement in the knowledge economy, it is not reported in the annual reports of even quoted companies (Ricceri, 2008; Tocan, 2012; Hadad, 2017).

The importance and connectivity between executive pay to drive employees' higher performance can be perceived as cyclic. It becomes more so as the top executives receive mandate to grow the organisation's profitability and increase the stakeholder's wealth. On the other hand, the top executive has to be attracted and motivated with competitive pay in order

for him to perform these complex and demanding tasks particularly in insurance companies. In consideration of the motivation and attraction factors, reward philosophy is expected to guide what is paid (Armstrong, 2009). That is, pay should be strategic, address longer term issues, and how people are valued for what they do (Armstrong, 2009; Rotea, Logofatu & Ploscaru, 2018). The ability of the company to pay which basically predicates upon the profitability of the company is quite relevant and evolves in a virtuous circle.

Also, there are arguments in practice that decision of what executive pay should be rest solely upon the market prevailing price without recourse to performance, profitability and their contribution to organisational efforts. Hence, much needed to be done to evaluate what determines the pay of top executives in Nigeria in relation to performance and more importantly in the insurance subsector of financial industry where the resources are mainly 'men, money and management.' The responsibilities of the top executive are much demanding (e.g., growing sales and shareholders' wealth). It is therefore expected that his/her pay should be comparable with that offered for similar position in the job market (Cohn & Lindberg, 1997). This is to motivate him/her to higher performance.

The Nigerian insurance sector has undergone reforms in the last two decades. The Insurance Act 2003 and Recapitalization Reform of 2005 were to revamp the industry with the intention to bring about improved performance, competitiveness and growth of the industry (CIPM, 2018). This led to merger that collapsed 103 insurance companies, to 49 companies by 2005 (CIPM, 2018). Interestingly, CIPM (2018) fingered the financial disclosure requirement which demanded that executive pay be made public, and subject to 'what is enough or not' as pay for top executives. The quandary of most organizations is how to fix executive pay in concert with performance which is the focus of this paper. Often times, companies may post low earnings and yet pay what companies that post high revenue does. Pay may not reflect organisation performance. For instance, organisation may retrench, yet no reduction is made in salaries or bonuses of top executive to retain employees or improve the bottom line (Magee, 2014). The pay can make employees and the executives of a company to work on cross paths.

Many works in this area focused majorly on the normative controversies without empirical studies. Other empirical studies focused on manufacturing industries and listed firms in the Stock Exchanges. This study extends the search for evidence to the insurance subsector which may possess the sensitive elements of pay-related-performance-structure because productivity is highly dependent on intellectual capital and human resource skills. Pointedly in the past decade, the Nigerian financial services sector have been criticized for seeking to use pay and unconventional means for marketing termed the induce factor (Kinnie, & Hutchinson, 2003); while also asserting aggressively that the CEO is the chief marketing officer. Based on this, we conjectured that there may be no relationship between executive pay and the profitability of Nigerian insurance companies. The study will also shed light on the right ways of determining wages rather than the market prevailing executive pay structure in the Nigerian financial sub sector.

2. Literature Review

Controversies have trailed what top executives are paid. The controversies arose as a result of the large chunk of monies of the organisation involved in the pay (Akewushola & Saka, 2018). The awareness was heightened by corporate scandals attendant on executive pay since 2002 (Syed & Khalid, 2007). The relationship between levels of pay with corporate

performance, board structure, organisation size and the duties of executive were suggested to be the major determinant of executive pay and not just market prevailing rate.The concern however is 'how much is too much' as top executive pay. This has put the management pay under search and the call for executive disclosure of their pay.

Pay refers to the value of the total earnings and benefits received by the employees. It is all that is received as part of employment relationship, Jayeoba (2019). Organisational executive consists of that entire board of an organisation. They are sometimes called Directors. Profitability is what accrues to an enterprise after the deduction of all expenses. For a larger organisation, it can be Return on Asset (ROA) which is calculated by dividing profit after tax by total asset. Another way of calculating profit is through Return on Equity (ROE). Return on Investment (ROI) is also used to calculate profit which is the net profit before tax divided by total investment.

One side of the debate is the question of whether managers maximize shareholder's wealth in recent years (Hubbert & Paller, 1994). The cost agency as a result of separation of ownership from owners has engendered high pay. This strand of argument suggested that CEO compensation is not related to performance and therefore prescribed a multiple of the lowest worker's pay for top executive. Magee (2014) suggested that executive pay (salaries and bonuses) is excessive and in many cases the organisation they lead perform poorly. It has been argued also that excessive gap in the pay of the executive and other employees of the organisation can make them work on crossed path thereby not attaining the goals of the organisation (Magee, 2014). The executives are always remunerated for top and bottom line growth, while the broader based employees are held accountable for operating efficiencies. Executive over payment for under performance (eg, stock faltering) can hurt investors and can lead to de-investment (Magee, 2014). Therefore, pay should be compared to stock performance year in year out as advised by Syed & Khalid(2007) and Magee (2014). If the change in stock prices out paces the changes in pay, the executive is not over paid. Syed & Khalid, (2007) narrated that executive enjoys substantial pay raises that bear no relation with the company's performance.

At the other level of the argument for higher pay of the executive is the attraction issue of such scarce human capital. Hubbard and Palla(1994) noted that high pay for executives reflect the limited executive who can run larger organisations successfully. It is therefore paying premium for business luminaries. Competitiveness requires high performance skills. This can only be driven by high pay as argued by apologists of executive high pay (Hubbard & Palla, 1994). High compensation serves as the basis for value increasing incentives to improve a CEO performance.Kozan, Boulanger and Boulanger (2004) suggested that a well design pay program must attract and retain high calibre executive. However, they review stock options failings and recommended alternative compensation program. To them, executive compensation should be related to performance, relating pay programmes to complex business strategy and address increasing shareholder's concern about their appropriateness. Nobel (2015) queried why one executive compensation package tend to look like another since every CEO is different, as in every company; just like each company has its own unique strategic goals. Therefore, executive compensation package should be designed to align to those goals while addressing individual goals of the executive (Nobel, 2015).The components of an executive compensation plan vary widely across companies. In most cases however, the plan consist of the following (Component of an executive

compensation plan, 2018) base salary, bonuses, distribution of annual milestones for reaching incentivized goals, long term incentives, benefits and perquisite.

2.1 Conceptual Framework

This study sought to elaborate how profitability is affected by the executive remuneration of some selected non-life insurance companies in Nigeria. The independent variable was executive remuneration. Profitability is used as dependent variable.

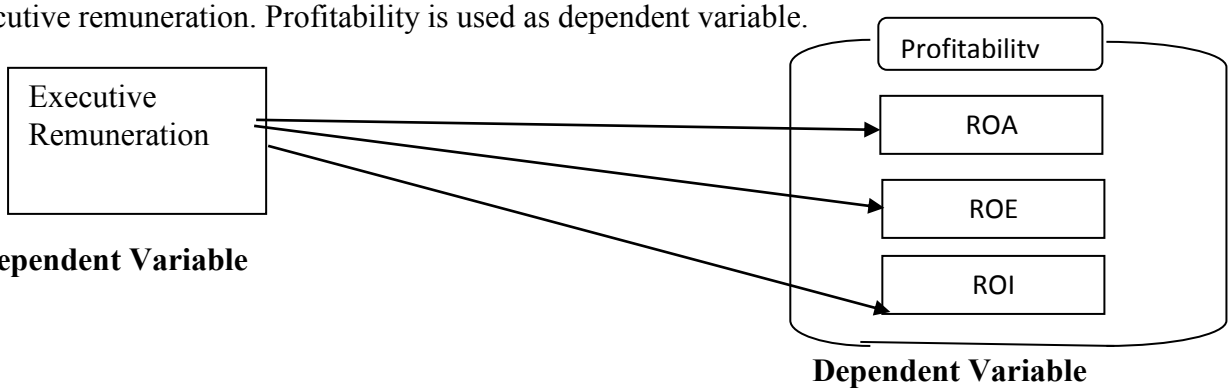

Figure 1: Executive Pay and Profitability Model

Source: Authors' (2020)

2.2 Theoretical Framing

Various theories predisposes to several reasons why executive pay structure cold motivate performance. Some of the persistent ones discussed in the literature

Efficiency wage theory: the theory stipulates that firm will pay more than the market rate because they believe that high levels of pay will contribute to increase in productivity by motivating superior performance, attracting better candidate, reducing labour turnover and persuading worker that they are being treated fairly. This theory is also known as the "Economics of High Wages (Armstrong, 2009). Organisations therefore formulate their pay policies on this theory to place them as market leaders or to indicate that they pay above the market average (Armstrong, 2009).

Agency theory: The owners of a firm, (the principal) are separate from the employee, (the agent). This difference always creates 'agency cost' because the agent may have to be monitored for productivity by the principal. The principal (shareholders) therefore derives ways of motivating and controlling effort of the agents in a shareholder's primacy model (Campbell, Campbell, Sirmon, Bierman & Tuggle, 2012). Following from the proposition of this theory, high pay for the top executive is so designed to make them productive and add to the bottom line and principal's wealth. High pay is used to induce maximization of wealth of stakeholders which produces log run profitability

Human Capital Theory: human capital theory suggests that individuals and society derive economic benefit from investments in people (Sweetland, 1996). The owners of a firm pay for the set of skills, knowledge, experience and ability of employees (the agent) that forms the stock of human capital which is expected to be deployed for the productive level of the organisation. Executives are therefore paid for their relative human capital, that is, the value residing in them as a result of expertise.

Effort Bargain Theory: Bargaining is any process that aims at reaching an agreement between two players (Muthoo, 2000). Muthoo further expatiated on the basis of exchange to be the bargaining power to negotiate agreement. That is, workers aim to

bargain a balance between their contribution and what the employer is prepared to pay to evoke that contribution. Thus, performance tied to pay. That is, an inducement is offered in return for the contribution expected of the workers and the sustainability of such efforts in continuous performance.

Although all the theories considered here are relevant for the orientation for this study, but human capital and efficiency wage theories are closer because the methods adopted exhumes from here. With efficiency wage theory, top executive pay policy should reflect organisation as an employer of choice, galvanize superior performance of top executive, sustain them and motivate them to continue with superior performance. At the other level, with human capital theory, the top executive pay should be reflective of their level of education and contribution to growing the organisation. That is, the value added to the top and bottom lines and maximization of stakeholder's wealth. With this, pay is tied more to discriminates of contributions through experience and level of education, and not to extraneous factors like prevailing market wage alone.

3. Data and Methods

Both data on executive remunerations and the profitability indicators were obtained and computed from the annual reports of the insurance companies. The research adopted a pooled Ordinary Least Square technique on panel of 10 out of the existing strictly 29Nigerian non-life insurance companies (NAICOM, 2017). The other 12 companies offer composite business which is anticipated will possess differentiated characteristics of executive pay structure. They were selected on the basis of their performance. Five each of the highest performing and lowest performing insurance companies were picked for the study obtained from Nigeria Insurance Association Reports (2010-2017). The profitability rates were based on each company's computed Return on Asset (ROA), Return on Equity (ROE), and Return on Investment (ROI) for 10- year period, 2007-2017. The total emolument/pay of each company's executives was also drawn from their annual reports of same period. The model for the study is expressed in Equations as follows:

Model 1: $ROA_{it} = \alpha_0 + \beta_1 POEit + \varepsilon_{it}$

Model 2: $ROE_{it} = \alpha_0 + \beta_1 POEit + \varepsilon_{it}$

Model 3: $ROI_{it} = \alpha_0 + \beta_1 POEit + \varepsilon_{it}$

The above specified models were estimated after determining fixed effect model (FEM) and random effect model (REM) appropriateness for the models. Hausman cross-sectional test was conducted to test for random effects on the relationship as well as to select the best effects to be used in the estimation. The purpose of Hausman test is to identify and differentiate between random effects model and fixed effects model to test the hypotheses (Lu & White, 2014). Null hypothesis during this study is that the random effect is a preferred model while the fixed effect model is the alternative hypothesis

4. Results and Discussions

Hausman Test

Two techniques were used to analyze panel data: one is fixed and other one is random effect. In order to select between these two the Hausman test is used as cross sectional approach over the panel data in order to get more filtered and visible results The test is applied for the purpose of checking overall random or fixed effects in the model. The given Hausman test which showed correlated random effects with the probe value which was (<0.05) showed

significant impact of insurance company profitability. The finding from Hausman test specification indicated in Table 1 allow us to reject the null hypothesis that random effect model is more appropriate in the regression analysis of this study. The rationale is that the p-value for Hausman test is greater than 5%, indicating that the random effects model is not appropriate and that the fixed effects specification is preferred in order to support the research purpose. The fixed effects adopted in this model have far-reaching implications for the insurance industry. The firm –specifics of each insurance company executive pays are of significant importance in driving profitability.

Table 1 Correlated Fixed Effects - Hausman Test

S/N	Variable	Chi.sq	Df	Prob
1	ROA	1.639706	1	0.2004
2	ROE	0.246279	1	0.6197
3	ROI	0.185919	1	0.6663

Source: Computed by the Authors (2019)

Cross-section Fixed Effect Regression

Table 2 Panel Analysis with Fixed Effects

	Model 1	Model 2	Model 3
Dependent Variable	ROA	ROE	ROI
EXREM	1.30 (0.000)	1.47 (0.0004)	1.8 (0.0055)
R square	0.6284	0.425935	0.5733
Prob F-Statistics	0.000001	0.002517	0.000015

Source: Computed by the Authors (2019)

The value of coefficient summarizes the regression equations after effects. As indicated in Table 2, executive remuneration has significant impact on return on assets (ROA), return on equity (ROE) and return on investment (ROI) of selected insurance companies. The values of the R^2 are 0.628, 0.425, and 0.573 respectively. This indicates that about 62.8%, 42.5%, and 57.3% of variations in ROA, ROE, and ROI respectively of non-life insurers in Nigeria is explained by explanatory variable used in the models above while 37.2%, 57.5% and 42.7% of the variation in profitability is explained by other variables not included in the model. The F-statistic is significant at 5% significance level. In the models, the p-value for the F-test were (0.000001), (0.002517), and (0.000015) respectively which are less than the significance level (0.05). This means that the overall models are good fit for the data.

The overall results show that executive remuneration has a positive but very weak and similar influence on all profitability indicators (ROA-1.30, ROE - 1.47E-08 and ROI - 1.81E-08). Furthermore, the results indicate that whenever the selected insurance companies increases executive remuneration by one unit, its profitability increases This indicates that profitability of selected Nigerian insurance companies in this study are quite reflective of executive remuneration notably imbued firm-specific effects. It is supportive of the evidence that each insurance company fixes its remuneration in line with profitability without recourse to competition or what the market pays

5. Conclusion

The fixed effect model found appropriate in this study implies that each insurance company idiosyncratic specifics is correlated to respective executive pays. This is a crucial outcome of

this investigation which pointedly is confirmingthat executive pay in the Nigerian insurance industry aligns to Effort Bargain Theory (Muthoo, 2000). That is, executives use bargaining power to negotiate and determine their pays depending on both profitability and capacity to pay however the weak coefficients in the regression estimates also signals that there is probability of benchmarking of executive pays since it is reflective that there is partial weak correlations between profitability and executive pay. The fixed effects also implies that company size may also influence what the companies are prepared to pay in line with the thoughts in Syed & Khalid (2007). In essence executive pay in Nigerian insurance industry is strongly connected to profitability while simultaneously each company evaluates and bargains what is perceived to be value-added from human capital employed.

Recommendations

Profitability of business organizations nurtures growth. For the insurance industry to continue experiencing growth, it is of paramount importance to consider recruiting quality executives with commensurate remuneration. Nigerian insurance companies should avoid the risk of recruiting only executives they can afford to pay. Since, insurance is a hard sell in all economies, greater resources should be deployed to motivate best efforts of executives at work places. In the short run, commensurate executive pay may seem counter –productive, but in the long run as this research suggests, application of benchmarking to fix executive pay will pay off. Nigerian insurance companies should therefore adopt strategic human resource planning to project and manage executive pay structure

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THE CHALLENGES AND PROSPESTS OF FORENSIC ACCOUNTING AND INVESTIGATIVE AUDIT AS AN EFFECTIVE TOOL TO REPOSITIONING NIGERIA ECONOMY

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Abstract

The study explores the prospect and challenges of forensic accounting and investigative audit as a tool for repositioning the Nigerian economy. The study was carried out among these stakeholders; internal auditors, and external auditors of the four selected industries (Cadbury Nigeria Plc, First Bank Plc and PricewaterhouseCoopers and NPA) in Lagos State. A total number of one hundred (100) questionnaires copies were administered to the respondents. Results show that Forensic accounting is an indispensable practice that requires adoption in the drive towards repositioning the Nigeria economy. Forensic accounting and investigative if rightly explored has the potentials of uncovering financial misdeeds, fraud and misappropriation at any point in time. Based on these findings, it is recommended that emphasis on the practice of forensic accounting and investigative audit in both private and public sector of Nigeria should be on the basis of its viability in assisting towards reducing the growing financial malpractices and its associated crimes in Nigeria. In addition internal audit activities should be regulated to ensure compliance with forensic accounting and investigative audit standards so that fraud and other associated corrupt practices can be reduced.

Key Words: Economic crime, fraud management, financial crime, forensic accounting.

1. INTRODUCTION

The Nigerian financial structure, management and administration have become an issue of concern to technocrats, policy makers and academics, as a level on financial impunities, improprieties and mismanagement of both corporate and public funds have been constituting sources of volatility to economic environment. This unhealthy situation gives rise to the need to evaluate the usefulness of forensic accounting and investigative audit practice in both the public and private sector in Nigeria, to install professional discipline as well serve as an effective tool to reposition the Nigeria economy at all levels. Forensic Accounting was introduced in Nigeria, to supplement the efforts of both the conventional accounting and auditing practice, to checkmate the increasing occurrence of occupational and other financial related crimes in Nigeria. Uchehara (2012) Forensic accounting and investigative auditing covers a wide range of professional accounting and auditing field which presently, have moved from the examination of books of accounts, prevention and detection of fraud practice, to commercial litigation, business valuation, contract covenant compliance and pricing, divorce cases in marital relationship and determination of acceptable values in sales and impairment of productive and non productive assets, exchange/disposal values which should be justified for fair value.

The determination of contract value and covenant to completion is presently an ongoing problem/challenges in both the public and private sectors Of Nigeria, as many awarded contracts are abandoned without completion, covenants to completion dates are not met, agreed contracts prices are over influenced and padded. Government officials make unauthorised trips with uncountable crew members, exorbitant foreign medical bills and uncontrolled expenditure of public treasury at the expense of the bona fide citizenry.

In the private sector there has been incidences of financial leakages and massive financial exit of businesses from the Nigerian economy. In many ways unguided capital flight by foreign expatriates through falsification of salaries and emoluments, third party transactions, over invoicing and using bills for collections which gives them rooms for manipulation on the values of the goods and services. At this juncture that the researcher deems it necessary to evaluate how government can institutionalize forensic accounting and investigative audit practices to mitigate the magnitude of gross financial and economic misconduct, which is dragging the Nigeria economy down. The Nigeria economy in recent times has attracted increasing attention. According to Owojori and Asaolu (2009) the Nigerian economy overtime has continued to dwindle and recorded increasing decline, affecting all spheres of the country in terms of development. Dada, Enyi, and Owolabi (2013) assert that the poor state of the Nigerian economy can be traced to issues related to gross misuse of public funds meant for economic development. Similarly, Adegbie and Fakile (2012) opine that corruptible practices and gross misuse of public funds among the leadership cadre of Nigeria are the major challenges facing the economic development of the country. Consequently, the prevailing circumstance as regards the misuse of funds meant for development, has had its negative effect on the Nigerian economy; thereby necessitating the engagement of effective tools such as the forensic accounting and the investigative audit towards repositioning the Nigerian economy.

According to Arokiasamy and Cristal (2009) forensic accounting is an indispensable practice that is adopted as an investigative style of accounting, involving the application of accounting concepts and techniques, to uncover the involvement of either an individual or an organization in any illegal financial activities; providing suitable evidence that could form strong basis in court. The researcher is also of the view that forensic accounting could be seen as an effective working tool used at various points to detect fraud in both the public and the private sectors of which Nigeria cannot afford to neglect. As indicated by Harris (2012) investigative audit could be regarded as a branch of forensic accounting which could be described as the accounting approach engaged to uncover the truth about financial dealings in response to allegations received either from internal sources or external sources.

As it were, forensic accounting and the investigative audit are focused on the detection of fraud related issues and also the misappropriation of funds supported by strong evidence useful in the court; while these tools could be engaged towards refocusing, re-strategizing and repositioning the social structure, political system and the economy of a nation for greatness. To achieve the needed national

renewal in Nigeria therefore, the need for nagging forensic accounting and investigative audit as effective tools cannot be over emphasized.

Njanike, Dube, and Mashayanye (2009) opine that the essential of forensic accounting and investigative audit could be seen most in the aspect of helping to deal with corruption from the root. In Nigeria many of this corruptible practices has recently occurred in both the public and private sectors of the economy such as the Nigerian national petroleum corporation (NNPC) with unremitted billions of dollars from crude export, financial statement engineering and figure falsification, implicating an Auditing firm PWC, Cadbury Nigerian Plc with long perpetuated fraud by its former Chief Executive Bunmi Oni to mention a few (Uchehara, 2015). Corruption slows down the economic development process and prevents the welfare and prosperity of a nation. Corruption as it were should not be allowed to thrive else, could hamper economic development in a country.

Renick (2007) noted that a combination of forensic accounting and investigative audit have the capacity to instil effectiveness in the control and audit of financial dealings, to detect corruption cases in a most discrete way. Forensic accounting and investigative audit could be rightly explored as an approach towards dealing with economic issues in any country; with the potentials to uncovering financial misdeeds, fraud and misappropriation at any point in time. However forensic accounting and investigative audit has certain challenges that poses as barrier to their effectiveness; which may limit its effectiveness in refocusing, re-strategizing and repositioning the social structure, and the political system of the economy. Forensic and investigative audit have an edge over the traditional or conventional audit which has failed to provide the necessary protective measures over global economic resources, corporate and financial investment and Nigeria in particular.

Considering the challenges of forensic accounting and investigative audit, Grippo and Ibex (2003) identified that though these tools are deemed effective in uncovering financial misuse, they are constrained by limited information. The forensic accountants are information limited, they are deprived of the privilege of accessing information admissible in a court of law, thus, limiting the extent of evidence required for prosecution (Grippo and Ibex, 2003).

Crumbly (2001) indicated that there is the challenge of inter-jurisdiction traceable to globalization of the economy, which poses as barriers towards reaching individuals involved in financial scandals. More so, the barrier posed by the state of regulatory laws, in line with the prevailing technologies, do have its effects in controlling fraud, limiting forensic accounting (Degboro and lofinsola,2007). Bhasin (2007) obliged that an important challenge to the application of forensic accounting in birthing a better economic development is the low level of availability of forensic accountants within the various sphere of the country, the discipline been new and gradually gaining ground.

Forensic accounting would thrive in the face of regulatory framework and technological advancement (AICPA, 2006), and as such should not be neglected. The study will attempt to achieve the purpose of the study by answering the following questions:

1. What is the extent at which forensic accounting & investigative audit can assist in reducing the growing financial malpractice and its associated crimes in Nigeria?
2. To what extent can forensic accounting & investigative audit be used to checkmate fraud and other associated corrupt practices in Nigeria?
3. What are the factors that poses challenges to the effectiveness of forensic accounting and investigative audit towards repositioning Nigeria economy
4. What are the measures that would contribute towards ensuring the effectiveness and efficiency of functional machinery to prevent, detect and prosecute crime perpetuators

Okoye and Akenbor (2009) emphasized on the barriers posed by the difficulties the application of forensic accounting in economic development like Nigeria.

According to Ojaide (2000) there has being a noticeable increase of fraud occurrence in Nigeria which pointed out the needs for forensic accounting services. Okoye and Akamobi (2009) opine that there has been increasing incidence of compromise in accounting standards as regards forensic accounting in Nigeria; consequently heightening the incidences of fraud and fraudulent activities within the country, affecting the economy.

2. LITERATURE REVIEW

Forensic accounting is the integration of accounting, auditing and investigative skills (Dada, Owolabi and Okwu 2013; (Zysman, 2004). Dharand Sarkar (2010) define forensic accounting as the application of accounting concepts and techniques to legal problems. Forensic accounting and investigative auditing places more emphasis on examining and reporting findings of all accountability and irregularities as evidence in court of law or in administrative proceedings. Forensic accounting is the integration of accounting, auditing and investigative skills (Zysman, 2004) harand Sarkar(2010)define forensic accounting as the application of accounting concepts and techniques to legal problems.

Degboroand Olofinsola (2007) note that forensic investigation is about the determination and establishment of fact in support of legal case. That is, to use forensic techniques to detect and investigate a crime is to expose all its attending features and identify the culprits. In the view of Howard and Sheetz(2006), forensic accounting is the process of interpreting, summarizing and presenting complex financial issues clearly, succinctly and factually often in a court of law as an expert. It involves the use of accounting) expertise, auditing skills including scientific and sophisticated mechanism to examine, investigate, provide evidence as an expert witness in litigation proceedings and make constructive reports attainable in court.

Mitrić, Stanković, and Lakićević (2012) indicate that forensic accounting practice could be dated back to 1817, where a decision of a court on bankruptcy was based on the testimony of an accountant. They further indicated that a Scottish accountant used his knowledge and expertise through opinion to support arbitration proceedings in the 1820s. Several articles examined revealed expert testimonies

and evidence on arbitration in the late 1800s and the early 1900s. However, "forensic accounting" was used by Kautilya who stated several means of embezzlement, but the term was coined in 1946 by Peloubet (Joshi, 2003; Crumbley, 2001). That is, forensic accounting is not new in the world; nonetheless, many countries are yet to grow this profession even though they need it badly.

Though forensic accounting is dated back to the 1800s, it was noted from the review that there is no single definition for it. It is also known as investigative or fraud audit or even judicial accounting and is the unification of accounting, auditing, investigation, and law. Crumbley (2003) explained forensic accounting as the examination and interpretation of legal facts and evidence, and expert witnessing in the court of law.

Apostolou, Hassell, and Webber cited in Modugu and Anyaduba (2013), also indicated that forensic accounting is a specialized accounting field which makes use of investigative accounting approach to establish fact and figures for legal usefulness that arises from activities of current and potential disputes or litigation. Therefore forensic accounting is a new concept in accounting literature targeted at achieving a high level of assurance in establishing the occurrence of fraud, the extent of such fraud and parties concerned in order to uncover the truth. It uses generally accepted accounting, auditing principles, and accounting expertise to establish losses or gains, property, damages, also used to determine the effectiveness of an internal control and fraud practices for legal decisions in both existing and intending litigation. Thus, it is accounting using scientific approaches to arrive at generally accepted connotation (Akintoye, 2008; Crumbley, 2006) and providing the needed findings in settling disputes. In summary, in these regard forensic accounting and investigative audit could be referred to as a special investigative technique that employs accounting, auditing, investigative and legal skills and knowledge to provide evidence of information suitable or relevant to legal issues. Simply put, it is accounting spoken in the language of the law.

Forensic accounting and investigative audit is a branch of accounting which mark use of unique guild methodology and investigative procedure to review indebt facts, figures and crime related information useable as evidence for court proceedings, by adopting practical steps in examining, investigating and detecting fraud practices and irregularities and profound preventive measures through compliance directives, due diligence and risk assessment. Detection of financial misrepresentation and financial statement fraud (Skousen and Wright 2008); tax evasion; bankruptcy and valuation studies; violation of accounting regulation (Dharand Sarkar, 2010).

According to the Association of Certified Fraud Examiners (ACFE) forensic accounting is the use of skills in potential or real civil or criminal disputes, including generally accepted accounting and auditing principles; establishing losses or profit, income, property or damage, estimations of internal controls, frauds and others that involve inclusion of accounting expertise into the legal system (Okoye and Gbegi 2013) agree that forensic accounting also called investigative accounting or fraud audit is a merger of forensic science and accounting. Forensic science according to Crumbley (2003) could be referred to as representing the application which links the natural law to that of man.

He refers to forensic scientists as examiners and interpreters of evidence and facts in legal cases that also requires expert opinions regarding their findings in court of law. The science in question here is accounting science, meaning that the examination and interpretation will be of economic information. Joshi (2003) further sees forensic accounting as the application of specialized knowledge and specified skill to stumble up on the evidence of economic translations. Dharand Sarkar (2010) defined forensic accounting as the application accounting concepts and techniques to legal problems. While Degboro and Olofinsola (2007) in their view noted that forensic investigation is about the determination and establishment of fact in support of legal case. That is, to use forensic techniques to detect and investigate a crime is to expose all its attending features and identify the culprits.

In the view of Howard and Sheetz (2006), forensic accounting and investigative audit is new concept which involves the process of recording, summarizing, interpreting as well as converting financial estimates and associated assumptions that is of complex in nature and present for court use in both business, civil and criminal related matters as viewed in (Okunbor and Obaretin (2010) A forensic investigation may be grounded in accounting, medicine, engineering or some other discipline. Forensic audit is an examination of evidence regarding an assertion to determine its correspondence to established criteria carried out in a manner suitable to the court.

Gray (2008) believes that those qualified to handle forensic investigation are forensic accountants which are combination of an auditor and private investigators. Knowledge and skills include investigative skills, research, law, quantitative methods, finance, auditing, accounting and law enforcement officer insights. forensic accountant's primary duty is to analyze, interpret, summarize and present complex financial and business-related issues in a manner that is both readily understandable by the layman.

THE IMPEDIMENTS OF FORENSIC ACCOUNTING APPLICATION IN NIGERIA

Forensic accounting and investigative auditing is expected to foster accountability, financial discipline, probity and appropriate conduct in financial management and administration in Nigeria. But due to countable experiences in the financial and administrative structure, political God fatherism, judicial system impotency and corrupt practices. The lost of professional accountants and practicing auditors independence and the high degree of financial indiscipline and anxiety in the financial administrators, accountants, practicing auditors and cooperate bodies, influential board members including insecurity and the risk of life of the forensic accountants and auditors. The researcher observed that it is now difficult for forensic experts to carry out their jobs without undue interference from top political and government authorities. Being that there is no adequate protection from both government, corporate equity holders as well as law to protect them and families towards assassination, kidnapping loss of jobs and intimidation. Most times also observed that judges handling sensitive cases of litigation are either retired prematurely, or transferred unduly and sometimes killed. This is seen as a serious impediment to achieving forensic accounting and investigative audit objectives.

With the increasing rise in financial accounting fraud in the current economic scenario experienced, financial fraud detection has become an emerging issue of great importance for academic and researcher Industries. Uchehara (2017) the failure of internal auditing system of the organizations and identifying the accounting frauds has led to use of specialized procedures to detect financial accounting fraud, collectively known as forensic accounting(Sharma and Panigrahi, 2012. As cited by (Modugu, and Anyaduba2013). Though financial fraud in Nigeria has witnessed highly publicized cases especially in the banking system, Enyi (2009) undertook a study to offer suggestions using real case problem on how to apply forensic accounting in investigating variances and suspected fraudulent activities in manufacturing processes and thus suggests that the application of forensic accounting applies to all scenes where fraud is a possibility.

Okoyeand Akenbor (2009) commenting on the application of forensic accounting in developing economies like Nigeria, notes that forensic accounting is faced with so many bottlenecks. These includes inability to operate more independently and effectively, lack of technical (www.iuokada.edu.ng)capabilities and inability of gathering information that is admissible in a court of law, less focus on offering service quality, conflicting regulatory codes and standards, lack of harmonization and unification of all the existing sectors as corporate governance codes applicable in Nigeria CBN 2019, SEC 2014 and PENCOM Codes of 2018.

Crumbly (2001),GrippoandIbex (2003) added that the challenges confronting the application of forensic accounting is such that it lack the admissibility, of evidence in compliance with the laws of evidence which is crucial to successful prosecutions of criminal and civil claims. Also, the globalization of the economy and the fact that a fraudster can be based anywhere in the world has led to the problem of inter-jurisdiction.

Degboro and Olofinsola (2007) note that an important challenge to the application of forensic accounting in financial fraud control and management in Nigeria is that the law is not always up to date to meet with the changes in technology. (Modugu, and Anyaduba (2013) oncur that forensic accounting is seen as an expensive service that only big organizations can afford. Thus, most organization prefers to settle the issue outside the court to avoid the expensive cost and the risk of bad and negative publicity on their corporate image. Furthermore, forensic accounting is a new trend particularly in developing economies. Hence, professional accountants with adequate skill and technical know-how on forensic issues are hardly available.

THEORETICAL FRAMEWORK

There are several theories that explain why people perpetrate economic and financial crimes. The review of previous research works revealed that agency theory was linked with corporate governance (Caldwell and Karri, 2005; Corley, 2005; Roberts, McNutty and Stiles, 2005), or stakeholder theory linked with ethical business theory (Rodin, 2005) and agency theory with differential theory (Bejarano, 2008). Thus, studies usually combined two theories to explain the behaviour of fraudster.

However, this research adapted a different approach to exploring why people commit economic and financial crimes (EFCs) and how to combat them by combining the theories of fraud triangle, fraud diamond and fraud management. This approach may supplement and complement previous research in the field of EFCs and also explain the expected criminal behaviour of EFCs perpetrators and how to eradicate or minimize their execution.

Fraud was observed to have started in triangle, referred to as the Fraud Triangle which was considered as the three components of fraud namely; motivation, rationalization and opportunity. But as the society grows with complex multiple global occurrences of crime, there manifest another component called expertise, which is one of the main ban of today's fraud practices. The fraudsters use their expertise in information communication technologies to perpetrate fraud, such as hacking computer systems, commit internet fraud, and rob banks. This is known as artificial intelligence. In this system of fraud, there is no physical involvement of presence within the premises where the fraud is committed (Frimette and Vijay (2011). Meanwhile this is popularly called cyber crime.

The researcher, during his investigation uncovered the fifth component of fraud which he referred to as undue influence.

However, in recent literature, the three triangle theory was criticized. Wolfe and Hermanson (2004) and Carcillo and Hermanson (2008) indicate that one may have the incentive or pressure, opportunity and can rationalize but may not have the ability or capability to perpetrate EFC. Therefore, they expanded the fraud triangle by adding another part making a fraud diamond. In other words, the fraud diamond theory posits that the capability and personality traits can encourage or discourage the commitment of fraud. That is, opportunities can be available for a person, motivation can be high, good rationalization due to poor integrity may be available, but if the person does not possess a special skill or capability to capitalize on the loophole seen, the fraud cannot be committed.

Wilhelm (2004) developed the Fraud Management Lifecycle. It has eight stages with interrelated activities geared toward managing fraud. These eight stages are prevention, deterrence, detection, mitigation, analysis, policy making, investigation, and prosecution. These stages are independent actions but can be performed simultaneously. It is a representation of non-linear activity. This could be expressed in relation to theory of plan behaviour as most of the fraud perpetrators spend a lot of time perfecting their strategies as well as reviewing strategies to beat control measures put in place, as no fraudulent practices can be executed without adequate plan and expertises. This theory was propounded by Icek Ajzen to regulate individual behaviour, lifestyle and control of misconduct.

EMPIRICAL REVIEW

Empirical study by Olugbenga (2013) revealed that the applicability of forensic accounting in Nigeria is not well felt. Dada, Owolabi and Okwu (2013) survey research showed that forensic accounting services are positively related to the investigation and detection of fraudulent practices and it has not

been applied in the investigation and detection of frauds especially by major anti-corruption agencies in Nigeria. Moduguand Anyaduba (2013) in an empirical study concluded that forensic accounting be added to the tools necessary to bring about the successful investigation and prosecution of those individuals involved in criminal activities. In an empirical study by Onuarah and Ebimobowei (2012), on the deterrent in fraudulent activities of banks in Nigeria, the result indicate that the application of forensic accounting services to banks will deter bankers to some extent from engaging in fraudulent activities. Okoye and Gbedi (2013) examined forensic accounting as a tool for fraud detection and prevention in Kogi State, Nigeria. The findings revealed that the top management and senior staff are aware of forensic accounting while very few of the lower cadre has knowledge of forensic accounting. he government and the private sector organizations in the light of present day fraud related activities in the public sector need to develop interest in forensic accounting and accountants for monitoring and investigating any suspected and confirmed management fraud (Okoye & Gbedi, 2013). In an empirical investigation conducted by Akhidime and Ekatah (2014) on the growing relevance of forensic accounting as a tool for combating fraud and corruption, it was revealed that forensic accounting istill at the infancy stage in Nigeria and that most Nigerians seem to assume there is difference between forensic accounting and auditing. Hence, we hypothesize that there is no significant relationship between forensic accounting and fraudulent practices in the Nigerian public sector.

3. RESEARCH METHODS

A cross-sectional survey method was used in carrying out this research. Cross-survey method was considered most suitable for this study because it is purely used for academic research conducted within a short period of time in collection of data. The targeted population of this research comprises of stakeholders of the four selected industries (Cadbury Nigeria Plc, First Bank Plc and Price water house coopers and NPA) in Lagos State. The respondents form the bulk of the entire respondents of the study. They are considered knowledgeable enough to be able to supply credible information that will help the completion of this study. The sample size of one hundred (100) respondents was considered suitable for the study. Purposive sampling was adopted in drawing out the sample since it was very tedious and time consuming to study the entire population. The research instrument that was adopted is structured questionnaire which was used to generate information from the respondents on the phenomenon under study. Descriptive statistics was used to analyse the demographic data and answer the research questions of this study.

4. RESULT AND DISCUSSION OF FINDINGS

The demographic profile of the respondents were presented and discussed with the use of frequency and percentage while the objectives of the study were equally analyzed with frequency tables.

Demographic Characteristics of the Respondents

The study investigated the profile of the respondents of the study. The percentage of the respondents that belong to each category of the characteristics was analysed. The results are presented in Table 1

Table 1: Demographic characteristics of Respondents

	Frequency	Percentage
Gender		
Male	53	60.2
Female	35	39.8
Total	88	100.0
Age Group (in years)		
Below 30	4	4.5
30-40	30	34.1
41-50	49	55.7
51 and above	5	5.7
Total	88	100.0
Highest Level of Education		
HND	19	21.6
B.Sc/B.Tech/B.Eng.	47	53.4
M.Sc/M.Tech/ M.Eng.	22	25.0
Total	88	100.0
Years of Experience		
Below 10 years	51	58.0
11-20 years	30	34.1
21-30 years	7	8.0
Total	88	100.0
Staff Category		
Senior Staff	28	31.8
Junior Staff	42	47.7
Contract Staff	18	20.5
Total	88	100.0
Kindly identity your firm		
Cadbury Nigeria Plc	16	18.2
First Bank Plc	19	21.6
Pricewaterhousecoopers	12	13.6
NPA OK Food	17	19.3
Breweries PLC	13	14.8
Unilever PLC	11	12.5
Total	88	100.0

Source: Authors' Field Survey (2018)

Results from table 1 show that 60.2% of the respondents are males and 39.8% are females.

The respondents whose opinions were sampled were not minor, therefore opinion expressed on the phenomenon could be regarded as reliable. Majority of them were within 30-50 years of age. Respondents are educationally inclined, and are presumed to have been equipped with knowledge dealing in the phenomenon under study, fit to give a valid opinion useful in making a generalization on the phenomenon.

Results from table 1 shows that 58.0% of the respondents had below 10years of experience, 34.1% of the respondents had11-20 years of experience, and 8.0% of the respondents had 21-30years of experience. It is inferred that respondents are not without prior work experience and as such could express a valid opinion as regards the phenomenon under discussion.

Results from table 1showsthat 31.8%of the respondents are senior staff, 47.7of the respondents are junior staff, and 20.5%of the respondents are contract staff. These respondent worked in various organization as follows: 18.2% of the respondents worked with Cadbury Nigeria Plc, 21.6%of the respondents with First Bank Plc, 13.6%of the respondents worked with Price water house cooper 19.3%of the respondents with NPA OK Food, 14.8%of the respondents worked in Breweries PLC, and 12.5% of the respondents with Unilever PLC.

Table 2: **Prospect/benefit of Forensic Accounting and Investigative Audit**

	Frequency	Percentage
Improvement in the quality of accountability in a management system, thereby strengthening of the corporate governance practice and audit function		
Not sure	17	19.3
Agree	71	80.7
Total	88	100.0
Prevention of fraud and other irregularities such as embezzlement, financial statement engineering and other false financial claims		
Strongly disagree	7	8.0
Disagree	22	25.0
Not sure	30	34.1
Agree	29	33.0
Total	88	100.0
Prosecution of parties involved in fraud, embezzlement and other related financial crime such as tax evasion or short payments and false claims		
Disagree	15	17.0
Not sure	25	28.4
Agree	48	54.5
Total	88	100.0
Exposure of negligence of individuals with respect to their duties and responsibilities		
Disagree	5	5.7
Not sure	22	25.0
Agree	56	63.6
Strongly Agree	5	5.7
Total	88	100.0
Strengthen the system of internal control thereby safe guarding assets		
Not sure	20	22.7
Agree	52	59.1
Strongly Agree	16	18.2
Total	88	100.0

Source: Authors' Field Survey (2018)

Result from table 2 show that 80.7% of respondents agreed that forensic accounting and investigative audit brings about improvement in the quality of accountability in a management system, thereby strengthening the corporate governance practice and audit function. Which could is reduced financial malpractice and associated crimes in Nigeria. 34.1%of respondents were not sure whether the practice of forensic accounting & investigative audit could prevent fraud and other irregularities such as embezzlement, financial statement engineering and other false financial claims. However, 33.0% of the respondents agreed that it could birth the prevention of fraud and other irregularities such as

embezzlement, financial statement engineering and other false financial claims. It could therefore be asserted that the practice of forensic accounting and investigative audit to a large extent could result in the prevention of fraud and other financial irregularities.

Result from table 2 shows that 54.5% of respondents agreed that the practice of forensic accounting & investigative audit promote the prosecution of parties involved in fraud, embezzlement and other related financial crime such as tax evasion or short payments and false claims. Therefore the viability offorensic accounting and investigative audit promote the prosecution of parties involved in fraud, embezzlement and other related financial crime could be regarded as realistic.

Result from table 2 show that 63.6% of respondents agreed that the practice of forensic accounting & investigative audit fosters the exposure of negligence of individuals with respect to their duties and responsibilities, which can assist in reducing the growing financial malpractice and its associated crimes in the country. In addition, 59.1% of respondents agreed and 18.2% strongly agreed that the practice of forensic accounting and investigative audit has the potential to strengthen the system of internal control, thereby safe guarding assets. Such move as this, to a large extent, can assist in reducing the growing financial malpractice and its associated crimes in Nigeria.

Table 3: **Prospects of Forensic Accounting & Investigative Audit and Fraud Detection**

	Frequency	Percentage
Track and investigate fraud more successfully thereby checkmating and curbing incidence of corruption		
Not sure	5	5.7
Agree	29	33.0
Strongly Agree	54	61.4
Total	88	100.0
Deepen fraud prevention, detection and preserve money in government treasury for economic development		
Disagree	12	13.6
Not sure	37	42.0
Agree	39	44.3
Total	88	100.0
Strengthen anti-corruption fight, and assist in legal issues to provide valid evidence for prosecution of offenders where necessary		
Agree	52	59.1
Strongly Agree	36	40.9
Total	88	100.0
Provide a platform for practitioners to eliminate cases of compromised auditing process, reporting, camouflaging accounting facts and figures		
Not sure	12	13.6
Agree	59	67.0
Strongly Agree	17	19.3
Total	88	100.0
Instill discipline in top management towards financial disbursement in both the private and the public sector		
Not sure	8	9.1
Agree	28	31.8
Strongly Agree	52	59.1

Total	88	100.0

Source:Authors' Field Survey (2018)

Result from table 3 show that 33.0% of respondents agreed and 61.4% strongly agreed that forensic accounting and investigative audit can be used to track and investigate fraud more successfully thereby checkmating and curbing incidence of corruption. In Nigeria 42.0% of the respondents were not sure that forensic accounting and investigative audit can be used to enhance fraud prevention, detection and preserve money in government treasury for economic development. This lack of assurance could be traceable to the prevalence of corruption in the country. However, 44.3% of respondents agreed that forensic accounting and investigative audit can be used to deepen fraud prevention, detection and preserve money in government treasury for economic development. This suggests that no matter the prevalence of corruption, forensic accounting and investigative audit are viable enough to manage issues related to fraud prevention

Furthermore table 3 shows that over 91% of respondents agreed that forensic accounting and investigative audit can be used to strengthen anti-corruption fight, and provide valid evidence for prosecution of offenders where necessary. This implies that forensic accounting and investigative audit can be used to checkmate fraud and other associated corrupt practices in Nigeria

67.0% of respondents agreed that, forensic accounting & investigative audit can be used to provide, a platform for practitioners to eliminate cases of compromised auditing process, reporting, camouflaging accounting facts and figures. This signals a high level of control that can be ensured with forensic accounting and investigative audit.

Result from table 3 shows that 31.8% of respondents agreed and also 59.1% of the respondents strongly agreed that, forensic accounting & investigative audit would instill discipline in top management in the area of financial disbursement in both the private and the public sector, which will in time checkmate fraud and other associated corrupt practices in Nigeria.

Table 4: Challenges of Effective Forensic Accounting and Investigative Audit in Nigeria

	Frequency	Percentage
Limited access to information that can be useful in a court of law, thereby limiting the extent of evidence required for prosecution		
Agree	38	43.2
Strongly Agree	50	56.8
Total	88	100.0
An alarming increase in the number of fraud and fraudulent activities in Nigeria (ijaar.org) pointing towards the involvement of forensic accountants		
Strongly disagree	5	5.7
Disagree	18	20.5
Not sure	21	23.9
Agree	44	50.0
Total	88	100.0
Challenge of inter-jurisdiction traceable to globalization of the economy, which poses as barriers towards reaching individuals involved in financial scandals		
Strongly disagree	8	9.1
Disagree	5	5.7
Not sure	14	15.9

Agree	43	48.9
Strongly Agree	18	20.5
Total	88	100.0
Low level of availability of forensic accountants within the various sphere of the country		
Disagree	5	5.7
Not sure	17	19.3
Agree	21	23.9
Strongly Agree	45	51.1
Total	88	100.0
Compromise in accounting standards in Nigeria; consequently heightening the incidences of fraud and fraudulent activities within the country		
Strongly disagree	9	10.2
Disagree	12	13.6
Not sure	26	29.5
Agree	29	33.0
Strongly Agree	12	13.6
Total	88	100.0

Source: Authors' Field Survey (2018)

Result from table 4 shows that 43.2% of the respondents agreed and 56.8% strongly agreed that limited access to information that can be useful in a court of law, thereby limiting the extent of evidence required for prosecution. This however shows how critical and cogent access to information is in curbing fraudulent acts within organizations. it thus implies that repositioning Nigeria economy through the forensic accounting and investigative audit may be limited by the extent of information access.

Result from table 4 shows that 50.0% of the respondents agreed that an alarming increase in the number of fraud and fraudulent activities in Nigeria pointing towards the involvement of forensic accountants poses a challenge. Such challenge as this limits the effectiveness of forensic accounting and investigative audit towards repositioning Nigeria economy

Result from table 4 shows that 48.9% agreed and also 20.55 strongly agreed that the effectiveness of forensic accounting and investigative audit towards repositioning Nigeria economy is limited by the challenge of inter-jurisdiction traceable to globalization of the economy, which poses as barriers towards reaching individuals involved in financial scandals. It then implies that with the prevalence of inter-jurisdiction as a result of globalization of the economy, forensic accounting and investigative audit may not deliver as envisaged in repositioning Nigeria economy.

Result from table 4 shows that 23.9% of the respondents agreed while 51.1% of the respondents strongly agreed that low level of availability of forensic accountants within the various sphere of the country. This aspect of accounting profession is highly dynamix and requires a special expertise that understands the rudiments of forensic accounting. However there are limited numbers of accounting professionals in the country who are versed in the practice and as such may not be able to serve the interest of both the private and public sector satisfactorily.

Result from table 4 shows that 29.5% of the respondents though were not sure whether compromise in accounting standards in Nigeria poses a challenge in the effectiveness of forensic accounting and investigative audit; however, 33.0% of the respondents agreed and13.6%of the respondents strongly

agreed (www.iiste.org) that compromise in accounting standards in Nigeria poses a challenge. Consequently this challenge heightens the incidences of fraud and fraudulent activities within the country and may limit the repositioning of the Nigeria economy at the long run.

Table 5: The Measures That Would Contribute Towards Ensuring the Effectiveness and Efficiency of Functional Machinery to Prevent, Detect and Prosecute Crime Perpetuators

	Frequency	Percentage
The use of professional and well trained accountants		
Not sure	7	8.0
Agree	64	72.7
Strongly Agree	17	19.3
Total	88	100.0
Independence of the forensic accountants and auditors whose services are engaged		
Agree	36	40.9
Strongly Agree	52	59.1
Total	88	100.0
Strengthening of the internal control system in every sector		
Agree	15	17.0
Strongly Agree	73	83.0
Total	88	100.0
Increased access to information that can be useful as evidence in the law court		
Strongly disagree	8	9.1
Disagree	7	8.0
Agree	59	67.0
Strongly Agree	14	15.9
Total	88	100.0
Adequate remuneration of forensic professionals and voiding undue influence in task performance		
Agree	23	26.1
Strongly Agree	65	73.9
Total	88	100.0

Source: Authors' Field Survey (2018)

Result from table 5 shows that 72.7% of the respondents agreed and also, 19.3% strongly agreed that the use of professional and well trained accountants could serve as measure that contribute towards ensuring the effectiveness and efficiency of functional machinery to prevent, detect and prosecute crime perpetuators.

Result from table 5 shows that40.9% of the respondents agreed and also, 59.1% strongly agreed that independence of the forensic accountants and auditors whose services are engaged could serve as measure that contribute towards ensuring the effectiveness and efficiency of functional machinery to prevent, detect and prosecute crime perpetuators.

Result from table 5 shows that17.0% of the respondents agreed and also, 83.0% strongly agreed that strengthening of the internal control system in every sector could serve as measure that contribute towards ensuring the effectiveness and efficiency of functional machinery to prevent, detect and prosecute crime perpetuators.

Result from table 5 shows that67.0% of the respondents agreed and (www.iiste.org) also, 15.9% strongly agreed that increased access to information that can be useful as evidence in the law court could serve as measure that contribute towards ensuring the effectiveness and efficiency of functional machinery to prevent, detect and prosecute crime perpetuators.

Result from table 5 shows that 26.1% of the respondents agreed and (www.iiste.org) also, 73.9% strongly agreed that adequate remuneration of forensic professionals and voiding undue influence in task performance could serve as measure that contribute towards ensuring the effectiveness and efficiency of functional machinery to prevent, detect and prosecute crime perpetuators. In view of the study carried out in Iraq on the role of (www.iiste.org) forensic accounting in reducing financial corruption concluded that the reason for forensic practices not been able to successful in controlling fraud in Iraq is that forensic accounting is not included in the curricula taught in Iraqi universities as is the case of the universities of developed countries, in that, currently, there are no courses for forensic accounting in both post graduate and undergraduates studies, moreover most of the (www.iiste.org) audit and accounting personnel in Iraq are suffering from poor perception and information of the forensic accounting methods.

5. CONCLUSION/ RECOMMENDATION

Forensic accounting is an indispensable practice that requires adoption as an investigative style of accounting, in the drive towards repositioning the Nigeria economy. As there were, forensic accounting and the investigative audit are focused on the detection of fraud related issues and also the misappropriation of funds supported by strong evidence useful in the court; while these tools could be engaged towards refocusing, re-strategizing and repositioning the social structure, political system and the economy of a nation for greatness.

Forensic accounting and investigative audit could be rightly explored as an approach towards dealing with economic issues in any country; with the potentials to uncovering financial misdeeds, fraud and misappropriation at any point in time. However forensic accounting and investigative audit has certain challenges that poses as barrier to their effectiveness; which may limit its effectiveness in refocusing, re-strategizing and repositioning the social structure, and the political system as pertaining to the economy of the country.

To mitigate the challenges that limits the effectiveness of forensic accounting and investigative audit as an approach towards dealing with economic issues; certain regulatory steps needs be taken and definite standards that govern its integration or practice needs be established and well spelt out. Refocusing, re-strategizing and repositioning the social structure, political system and the economy using this approach of forensic accounting and investigative audit which is very important in this recent time, can then be realized and the Nigeria economy repositioned. Based on these findings, it is recommended that:

- Emphasis on the practice of forensic Accounting and investigative audit in both private and public sector should be on the basis of its viability in assisting towards reducing the growing financial malpractice and its associated crimes in Nigeria
- Financial activities should be regulated to ensure compliance with forensic accounting & investigative audit standards, thereby such that fraud and other associated corrupt practices can be checkmated.
- Top management in both private and public sector should design modalities to mitigate the factors that pose challenges to the effectiveness of forensic accounting and investigative audit towards repositioning Nigeria economy.
- Management should integrate such measures that can contribute towards ensuring the effectiveness and efficiency of functional machinery to prevent, detect and prosecute crime perpetuators in organizations.
- The Nigerian National University commission should mandate every university to include forensic accounting and investigative audit as a compulsory course of study to ensure its development and practices in the economy.

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EFFECT OF SERVICE QUALITY ON PERFORMANCE: A REVIEW OF THE LITERATURE

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Abstract

Service quality is a critical and significant issue to ensuring customers' satisfaction. Hence, it is imperative for service providers to strive for improved service quality, if they want to distinguish themselves from other competitors by gaining market share. A positive relationship between high levels of service quality and customer satisfaction improves firms' performance, and improvement in quality of service is significantly related to expansion of market share. In today's society, customers (internal and external) expect high level of quality service. If they do not feel they have received the quality of service they expected, they may not repurchase or patronize the same product. For that reason alone, it is important that organizations realize the need and importance of improving their service quality. This paper aims at reviewing literature on the concepts of service quality and customer satisfaction as well as examining the two major measurement methods; (service quality) SERVQUAL and (service performance) SERVPERF to determine which of these methods is more frequently used by researchers and the reason for it.

Key Words:, Customer Satisfaction, Service Quality, SERVQUAL, SERVPERF.

1 Introduction

Customer satisfaction has been viewed as an emotional state that results from an intrapersonal comparison of the customers' expectations with the evaluation of a product/service encounter (Brady & Robertson, 2001; Lovelock, Patterson & Walker, 2001). A better understanding of the satisfaction formation process allows firms to improve their customer satisfaction and loyalty more effectively. Increased customer satisfaction leads to higher customer retention rate, more repeat purchases and ultimately higher organisational profitability (Ojo, 2010). Consequently, many researchers have devoted considerable time to identifying the determinants of satisfaction (Poku, zakari & Soali, 2013; James, Emmanuel & Robert, 2012; Agyapong, 2011; Alabar, Ogena & Gbande, 2014). Among all the factors that have been identified as antecedents of customer satisfaction, service quality appears to have received considerable attention. Service quality has been found to be a competitive tool for various organisations since the growth and survival of companies depend on their ability to satisfy their customers (Agyapong, 2011; Kim, Park & Jeong, 2012). Customers are unsatisfied and disappointed when their expectations and predictions exceed the performance of the service firms, thus, service quality remain unsatisfactory (Saglik, Gulluce, Kaya & Ozhan, 2014). Therefore, consumers' satisfaction is an emotional response to the experiences associated with the adoption of a service (Adeoti & Osotimehin, 2012). This paper intends to review articles relating to these concepts and the frequency in the use of the two commonest methods of measuring service quality.

2.1 Conceptual Literature

Service quality has been defined as the difference between customers' expectations of service and their perceptions of the actual service performance (Arun & Manjunath, 2012). That is, a measurement of how well the service delivered conforms to customers' expectations (Tan, Wong, Lam & Ooi, 2010). Service quality is, therefore, interpreted as perceived quality indicating a customer's judgment about a service.

Service quality is one of the critical success factors that influence the competitiveness of an organization. It is an important primary concern to every service organization, simply because it is seen as a prerequisite for corporate survival a source of competitive advantage over and above rivals (Zalatar, 2012). Customer's retention is directly proportional to the quality of service received and level of customer's satisfaction (Gopalkrishnan, Mishra, Gupta & Vetrivel, 2011).

Customer satisfaction refers to an individual's feeling of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations (Leisen & Vance, 2001; Kotler, 2009; Boone & Kurtz, 2004). The present highly competitive environment resulting from technological advancements and globalization has forced organisations to focus on managing customers' relationship and, in particular, customer satisfaction and loyalty (Osotimehin, Hassan & Abass, 2015).

However, there are two conceptualisations of satisfaction, namely, transaction-specific satisfaction and cumulative satisfaction (Yi & La, 2004). Transaction-specific satisfaction is a customer's evaluation of his or her experience and reactions to a particular service encounter (Boshoff & Gray, 2004) while cumulative satisfaction refers to the customer's overall evaluation of the consumption experience to date (Tahir & Abu-Bakar, 2007; Cook, 2008).

The term customer satisfaction is a business term explaining how a measurement of the kind of products and services provided by a company is undertaken to meet its customer's expectation. The importance of customer satisfaction both practically and theoretically for firms' continuous survival cannot be over emphasized (Zalatar, 2012).To certain individuals, it may be seen as the company's key performance indicator but in a competitive marketplace where businesses compete for customers, it is seen as a key differentiator. Companies that have a more satisfied customer base also experience higher economic returns (Munusamy, Chellia & Mun, 2010). Consequently, higher customer satisfaction leads to greater customer loyalty which in turn leads to higher future revenue. If a company provides a product according to the requirements of their consumers, it will lead to the satisfaction of those consumers.

Customer satisfaction and service quality are inter-related. The higher the service quality, the higher is the customer satisfaction. If the products' performance falls below expectations, the customer is dissatisfied but if they are equal, the customer is satisfied. Beyond this, the customer is delighted if performance exceeds expectations (Kotler & Armstrong, 2006).

A conceptual framework of the interface between service quality and customer's satisfaction as perceived by the researchers is presented in the figure one.

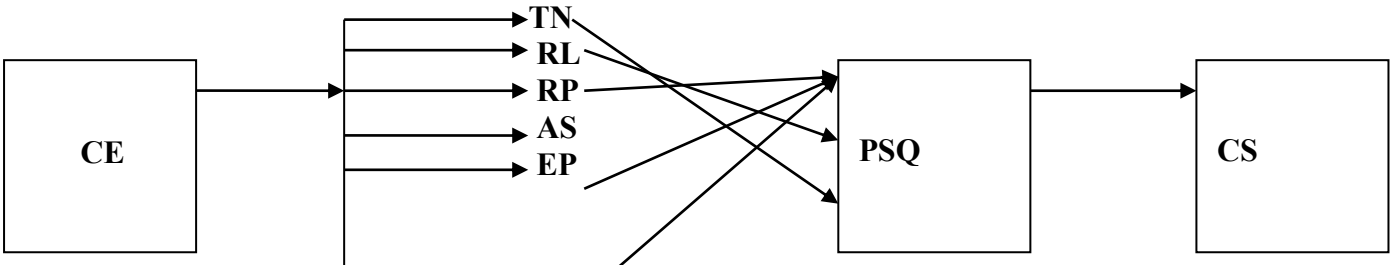

Fig. 1- A conceptual framework of the interface between customers' expectations, perceived service quality and customers satisfaction

CE=Customer Expectation; TN=Tangibility; RL=Reliability; RP=Responsiveness; AS=Assurance; EP=Empathy; PSQ=Perceived Service Quality; CS=Customer Satisfaction

Source: Researchers' Conceptual Framework (2019)

This framework is aimed at explaining the interactions between the different variables that come into play in the service quality-customer satisfaction discussion. Customers normally harbor a degree of expectation about a firm and the performance of its service. This pre-conceived expectation determines the way customers perceive service quality. Perceived

service quality is based on different dimensions including tangibility, reliability, responsiveness, assurance and empathy. The perceived service quality then dictates to what extent such customers will feel satisfied or otherwise.

Theoretical Review

A number of theoretical approaches have been utilized to explain the relationship between service quality and customer satisfaction. These theories include the Assimilation theory and the Contrast theory.

The dissonance theory forms the basis of the assimilation theory. According to the dissonance theory, consumers make some kind of cognitive comparison between expectations about the product and the perceived product performance (Festinger 1957). The dissonance theory contributes to the understanding of the fact that expectations are not static in that they may change during a consumption experience. This means that as customer's progress from one stage to the other, their expectations may be modified due to the experience during the previous stage.

This view of the consumer post-usage evaluation was introduced into the satisfaction literature in the form of assimilation theory by Anderson (1973). According to Anderson (1973), consumers seek to avoid dissatisfaction by "adjusting perceptions about a given product to bring it more in line with expectations". Consumers can also reduce the dissatisfaction resulting from a discrepancy between expectations and product performance either by altering expectations so that they coincide with perceived product performance or by raising the level of satisfaction by minimizing the relative importance of the dissatisfaction experienced (Olson & Dover, 1979). Serrano, *et. al.* (2018) posited that the positive relationship between expectations and satisfaction is explained through the assimilation effect. When consumers observe that their post-consumption service experience performs closely to their pre-consumption expectations, they tend to "assimilate" their post-consumption perceptions towards their baseline expectations and depend heavily on these initial expectations to form satisfaction judgments.

According to contrast theory, when actual product performance falls below consumer's expectations about the product, the contrast between the expectation and outcome will cause the consumer to exaggerate the disparity in the direction of the discrepancy (Yi, 1990). For instance, if the firm raises consumers' expectations in his advertising and then a customer's experience is only slightly less than what was promised, the product/service would be rejected as totally unsatisfactory.

Majority of the satisfaction theories concur that product performance exceeding prior expectations or some form of standards signifies satisfaction, whereas dissatisfaction results when product performance falls below such standard. Thus, the disparity concept between the actual outcome and the expected, constitutes the core of majority of the satisfaction theories. It is believed that customers' satisfaction will linger and eventually lead to loyalty if post-purchase dissonance is reduced to the barest minimum. This study leans on the assimilation theory because it helps to understand how customers' level of satisfaction from the consumption of a service is influenced by their expected and perceived quality of such services.

2.2 Models

2.2. 1 Dimensions of Measuring Service Quality

Among various measures of service quality, two are most widely accepted and used by researchers, the SERVQUAL model by Parasuraman, Zeithaml, and Berry (1988) and SERVPERF framework by Cronin and Taylor (1992).

SERVQUAL Model

The most common model in service quality literature used to measure the quality of services is SERVQUAL (Parasuraman, Zeithaml & Berry, 1988). It was a conceptual framework of service quality based on the interpretation of qualitative data from extensive explanatory research performed in four service businesses. This model was applied in four service sectors

including banks, credit card companies, stock exchange companies and service companies. The researchers identified some dimensions which were adopted as the basis for establishing a measurement scale to assess services (Hosseini, Ahmadinejad & Ghady, 2011). The SERVQUAL model, proposes a five-dimensional construct of perceived service quality: tangibles; reliability; responsiveness; assurance; and empathy – with items reflecting both expectations and perceived performance. Within the SERVQUAL model, service quality is viewed as the gap between customer perceptions of what happened during the service transaction and his expectations of how the service transaction should have been performed.

SERVPERF Model

The SERVPERF model was introduced by Cronin and Taylor (1992) in their empirical work where they questioned the conceptual basis and measurement approach of the SERVQUAL framework of Parasuraman, Zeithaml and Berry (1988). SERVPERF is not an entirely new scale but a variant of the SERVQUAL scale using only the perceived performance component while discarding the expectation component. They argued that SERVPERF was an enhanced method of measuring service quality and provided empirical evidences using the fast food, pest control, dry cleaning and banking industries (Jain & Gupta, 2004; Adil, Ghaswyneh & Albkour).

2.2.2 SERVQUAL Vs SERVPERF

According to Ogunnaike (2010), the SERVQUAL measuring tool "remains the most completeattempt to conceptualize and measure service quality". Incidentally, the SERVQUAL measuring tool's main benefit is its ability to allow researchers to examine numerous service industries such as healthcare, banking, financial services, and education (Ogunnaike, 2010).

Although SERVQUAL still remains a very popular approach in assessing service quality for researchers and practitioners, it has also received a lot of criticisms. Some of these include objections relating to the use of (Performance-Expectation) gap scores, length of the questionnaire believed to be excessive, the predictive power of the instrument as well as the validity of the five-dimension structure. In particular, there has been much disagreement on whether SERVQUAL or SERVPERF should be used for measuring service quality. While SERVQUAL directly measures expectations as well as perceptions, SERVPERF model of Cronin & Taylor (1992) considers perceptions of the service delivered only. SERVPERF assumes that respondents automatically compares perceptions with expectations and that measuring expectations directly is unnecessary.

The SERVPERF scale is considered an improvement over the SERVQUAL because it reduces the number of items to be measured by half and also because of its ability to explain greater variance through the use of single-item scale (Jain & Gupta, 2004). However, these researchers believe that SERVQUAL has a higher diagnostic power in determining areas of service quality shortfalls.

2.3 Empirical Review

Archakova (2013) attempted to discover what customers think about company's service quality and whether customer satisfaction level is good enough to attract more consumers and retain those who had been loyal to the company for years. The study was conducted using the Russian customers (tourists) of a Finnish company. Data collected was analysed through descriptive statistics and the results revealed that customers' loyalty behavior were driven by their attitudes and as such, loyalty must be managed through satisfaction rather than directly. The study was limited by the fact that the service quality determinants considered were the common five factors in the SERVQUAL model with the associated service gaps and this will definitely limit the generalization of the results.

A study undertaken in Finland examined the concepts of customer satisfaction and customer loyalty and how these elements lead business to success in a long term (Khadka & Maharjan, 2017). It also considered the factors that had impact on customer satisfaction and resulted in customer loyalty. The study made use of descriptive

statistics and SWOT analysis and collected its data through questionnaire. The research revealed that the current service level of the company was positive and customers were very satisfied with their service. The study also recommended improvement in feedback system and staff training in order to enhance customer satisfaction and loyalty. However, the results might have been different if a stronger analytical tool like correlation and regression had been used.

Nguyen, Nisar, Knox and Prabhakar (2018) conducted a study aimed at examining the impact of the five dimensions of service quality on customer satisfaction in the UK fast food market and to indicate which factors among the five dimensions have a main role in driving overall customer satisfaction. Primary data were collected from 147 respondents from two quick service fast food restaurants in the UK and the data were analysed using correlation and regression. The results indicate that tangibles, responsiveness and assurance play the most important role in driving customer satisfaction in the UK fast food industry, followed by reliability and empathy. This study was also limited by the fact that the service quality determinants considered were the common five factors in the SERVQUAL model.

Several studies relating to service quality dimensions and factors determining customer satisfaction have been carried out in emerging and developing countries.

A similar study in Pakistan was conducted by Khan (2010) to examine the dimensions of users' perceived service quality of cellular mobile telephone operators. The research which employed multiple regression and confirmatory factor analysis made use of the complete 22-item SERVQUAL instrument (under five dimensions) but included additional dimensions and items to make it more comprehensive in its application to telecommunication services. Khan (2010) referred to this as an 'adapted SERVQUAL model'. The study discovered that convenience and network quality dimensions (part of the additional dimensions) were found to be relatively most important in affecting users' perception and as such demands management attention to attract and retain customers while the dimension of reliability (an original SERVQUAL dimension) did not reflect significant effect on customers' perception of quality. However, the research failed to examine the potency or otherwise of SERVPERF as a measuring tool in order to determine if it was a better measuring tool or not.

Adil, Al Ghaswyneh and Albkour (2013) carried out a more specific work on the two major measuring tool in India. They presented a review of the two scales in an elucidative, concise and thoroughly documented way with a view to determining the better approach of evaluating service quality. The study concluded that SERVPERF has outperformed SERVQUAL by reducing the number of variables and workload of customer survey. The study, however, did not conduct any empirical research where the two measuring instruments were applied and compared but only reviewed the empirical researches of others who used either of the two tools.

Ainaser, Ghani, Rahi, Mansour and Abed (2017) also conducted a research to examine the role of service quality, customer satisfaction and bank image on customer loyalty. Confirmatory factor analysis was used to determine the different variables that were being studied and their relationship with customer loyalty. The research findings showed that customer satisfaction has an impact on the bank image a customer would create, which would ultimately affect his loyalty but did not consider the individual effects of the popular service quality dimensions.

Pakurar, Haddad, Nagy and Olah (2019) examined service quality dimensions which could be used to measure customer satisfaction through the modified SERVQUAL model and the effect of these dimensions on customer satisfaction in Jordanian banks. These dimensions are tangibles, responsiveness, empathy, assurance, reliability, access, financial aspect and employee competences. Findings revealed that the modified SERVQUAL model extracted four subscales in the new model. The first one consisted of four dimensions-assurance, reliability, access and employee competences while the second contained two dimensions-

responsiveness and empathy. The third and fourth subscales presented financial aspect and tangibility as separate factors. However, the dimensions of access, financial aspect and employee competences should have been considered as essential parts of service quality dimensions with the other subscales in order to have a wider degree of customer satisfaction in the banking sector.

Results from studies in Nigeria are not too different from what obtains in other developing nations. In a study carried out by Oyatoye, Adebiyi and Amole (2013) aimed at discovering the most desirable attributes by consumers which service providers should focus efforts on, using conjoint analysis, 200 dedicated mobile phone users were conveniently sampled and were asked to rank telecommunication service profiles with eighteen combinations. The rankings were then analysed with the use of ordinary least square regression. Findings show that affordable service, wide coverage and clarity of call top the list. It was equally observed that the factors considered were not based on the popular SERVQUAL/SERVPERF dimensions.

There was, however, a slight difference in the results obtained in a study aimed at identifying factors that determine customer satisfaction using ordinary least square multiple regression analysis (Emerah, Oyedele & David, 2013). Findings from this work revealed that courtesy and coverage area were the major determinants of customer satisfaction. While using the SERVQUAL dimensions as bases for their discussion, the authors noted that the dimension of service recovery was missing in the SERVQUAL model and suggested more helpful determinants like integrity, security, access, comfort, competence, functionality, flexibility, friendliness, among others.

Alabar, Egena and Gbande (2017) sought to measure how service quality and delivery impact on customer satisfaction in the mobile telecommunication market in Nigeria using 532 mobile subscribers spread across the six geo-political zones in the country. The study adopted the Pearson Product-Moment Correlation for its data analysis and found that a relationship exist between SERVQUAL reliability dimension and customer satisfaction as well as between customer satisfaction and switching intention among mobile phone users in Nigeria. The study did not look at the other dimensions but only concentrated on service reliability whereas other service quality dimensions might have had greater impact on customer satisfaction.

In their contribution to the researches relating to service quality, customer satisfaction and loyalty, Aremu, Onifade, Aremu and Mustapha (2018) while introducing the sustainability approach, examined the effect of enhancing service quality dimensions on sustaining customer satisfaction. A total of two hundred and fifty (250) customers of Nigerian banks were given questionnaires. The data analysis was carried out using multiple correlation, descriptive analysis and multiple regression. The results revealed that there is relationship between enhancing service quality and sustaining customer satisfaction. Among the five basic service quality dimensions tested, tangibility, responsiveness and reliability have significant impact on customer satisfaction. However, the study failed to test the significance of specific aspects of each of these dimensions on customer satisfaction.

Concluding Remarks

It is noted from the reviews that service quality is an important determinant of customer satisfaction. Most of these researches (Munusamy, et al., 2010; Saglik, et al., 2014; James, et. al., 2012; Alabar, et al., 2014) made use of SERVQUAL as a measuring tool for the quality of service being offered by the firms investigated either in its original or modified form. It is therefore suggested that further research concentrates on the use of SERVPERF or a combination of the two methods can be used in a single empirical study to determine if the results would be the same or different. It is also noticed that many of the researchers employed multiple regression and correlation (Ojo, 2010; Agyapong, 2011; Munusamy, et al.

(2010); Ogunnaike, 2010), factor analysis may assist in identifying the factors most emphasized by consumers. In most of the researches too, the respondents are working class people. Further research can make use of students (or other non-income-earning group) and see how they perceive the quality of services of the service providers.

It is recommended that service firms should focus on improving the quality of services rendered to their customers. This can be achieved through training of employees, employee satisfaction and researching into customers taste, among others. In order to compensate for the deficiency of SERVQUAL as a measuring instrument, it is recommended that the SERVPERF measuring tool be employed alongside with SERVQUAL. This gives room for comparison to be made in each circumstance and the superior one utilized. It is also recommended that the SERVPERF tool be adopted by researchers as a cost-saving method because of the reduction in the number of questionnaire items compared with SERVQUAL.

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DOES BI-DIRECTIONAL RELATIONSHIP EXIST BETWEEN FINANCIAL INTERMEDIATION AND ECONOMIC GROWTH IN NIGERIA

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Abstract

This paper examines the existence of bi-directional relationship between financial institutions and economic growth in Nigeria considering the period 1987 - 2017. The study used secondary data and employed diagnostic test to determine the model stability as well as Granger Causality test to determine the existence of bi-directional relationship between variables. Result shows that financial intermediation has bi-directional long-run relationship with economic growth in Nigeria. The study recommends that the Central Bank of Nigeria (the regulator of the financial sector) should reduce cash-reserve ratios. This will free more funds; and thus, enhance increase in the lending activities of financial institutions.

Keywords: *Demand following, financial intermediaries, and supply leading,*

1. INTRODUCTION

Financial intermediation development is a multidimensional concept and constitutes a potentially important mechanism for long run economic growth. It plays fundamental roles in the development and growth of the economy. The effectiveness and efficiency in performing these roles, particularly the intermediation between the surplus and deficit units of the economy, depend largely on the level of development of the financial system. The success of the financial system all over the world in providing its developmental roles has been predicated on the initiation of financial sector reforms such as the introduction of market-based procedures for monetary control, the promotion of competition in the financial sector, and the relaxation of restrictions on capital flows (Islam & Osman, 2011). The aim of initiating these reforms is to create a more efficient and stable system, which will facilitate optimum performance in the economy. This means providing a foundation for implementing effective stabilization policies and successfully mobilizing capital and putting it to effective use. This in turn leads to achieving higher rates of economic growth (Johnston & Sundararajan, 1999).

The financial sector in any economy serves as a catalyst for growth and development. Banks are able to perform these roles through their crucial functions of financial intermediation (channel for mobilizing savings from numerous surplus spending units to deficit spending unit), provision for an efficient payment system and facilitating the implementation of monetary policies. It is not surprising therefore that government, the world over attempt to evolve an efficient banking system, not only for the promotion of efficient intermediation but also for the protection of depositors, competition, maintenance of confidence in the stability of the system and protection against systemic risk and collapse. Awokiyesi (1999) opined that the aim of every economy is the attainment of a healthy and sustainable position for the critical macroeconomic variables, which are the balance of payment (BOP), gross domestic product (GDP), inflation and unemployment. The pursuits of these goals have become one of the major pre-occupations of policy makers worldwide. This is understandable due to the

tremendous impact of developments in BOP, Inflation, GDP and Unemployment on the social welfare of the society.

Growth in neoclassical theory is brought about by increases in the quantity of factors of production and in the efficiency of their allocation. In a simple world of two factors, labour and capital, it is often presumed that low income countries have abundant labour but less capital. This situation arises owing to the shortage of domestic savings in these countries, which places constraint on capital formation and hence, growth. Even where domestic inputs in form of innovations, addition to labour which are readily available and hence, no problem of input supply, increased production processes in low-income countries are slow. Hence, economic growth is obtained by an efficient use of the available resources and by increasing the capacity of production of a country.

Prior to the liberalization of the Nigerian financial system, the system was highly repressed. Interest rate controls, selective credit guidelines, exchange rate regulations, ceiling on credit expansion and use of reserve requirements and other direct monetary control instruments characterized the system. Entry into the banking system was also restricted. Consequently, the introduction of the liberalization of the system led to the adoption of a market based interest and the establishment of a market based autonomous foreign exchange market, among others (Awokiyesi, 1999).

The liberalization of the Nigerian financial system took off with the liberalization of lending and deposit interest rates aimed at guaranteeing efficient allocation of resources followed by deregulation of entry barriers into the banking sector to enhance bank efficiency through increased competition in service delivery and management. The liberalization of the financial system led to the restructuring of the supervisory authorities (CBN, SEC and NDIC) of the nation's financial sector and their capacity were strengthened by increasing their viability through adequate regulations regarding minimum capital requirements, specifying the range of assets and liabilities they can acquire, introduction of uniform accounting standards for banks to ensure accuracy, reliability and comparability. Nigeria embarked on the programme of financial liberalization in order to maximize the benefits associated with a free market system.

The liberalization which is associated with higher interest rates stimulates savings, based on the assumption that savings are responsive to interest rates. That is, the higher the savings rate, the higher the level of investment leading to a higher growth.

The relationship between economic growth and financial sector is dynamic, such that the latter, at one stage influences the former, while at another stage, the former may influence the latter and it is agreed that finance is not exogenous (Adelakun, 2010). For Nigeria, identifying the relationship between financial system and economic growth is crucial, in view of the continuing progress of this sector, particularly the economic reforms and the consolidation exercises within the financial system. It is necessary to appraise the activities of financial intermediaries in Nigeria in term of capacity to support financial activities and support the investment needed to boost economic growth.

The impact of financial intermediation on the growth of an economy has continued to generate heated debate. While some studies opined that financial intermediation drives economic growth (Odedokun, 1998, Islam & Osman, 2011), others have argued that economic growth drives financial intermediation (Agu & Chukwu, 2008, and Adelakun, 2010). Moreover, there are studies, which have argued that a bi-directional causality exists between financial intermediation and economic growth (See Odhiambo, 2011; using a case study of Kenya). None of the studies reviewed used Nigerian data; thus, provides a gap. This study sought to fill this gap and contributes to the body of literature by examining the relationship between financial intermediation and economic growth in Nigeria. It also sought to empirically establish the direction of causality between financial intermediation and economic growth in Nigeria. The specific objectives of the study are: to examine whether financial intermediation causes economic growth (supply-leading hypothesis) in Nigeria;

whether economic growth causes growth of financial system (demand-following hypothesis) in Nigeria and to identify the existence of bi-directional causality between financial intermediation and economic growth (feedback hypothesis) in Nigeria.

This paper contributes to existing literature by attempting to establish the causality direction of financial intermediation and economic growth in Nigeria. It also provides country specific results concerning Nigeria's financial system. The paper is organized into six sections. Section one is the introduction while, section two dwells on literature review. Section three showed the methodology adopted for the study while, section four dwell on data analysis and discussion of results. Section five concludes the paper while, section six provides recommendations.

2. LITERATURE REVIEW

The concept of financial intermediation is not new around the globe. It has been a subject of study at both macro and micro-level. At the macro-level, the significance of financial intermediation cannot be over-emphasized, however, there are mixed feelings about this. While some argued that it facilitate the efficiency of the financial system (Gromb & Vayanos; 2010, Anad & Subrahmanyam; 2008), others have also argued that it is passive in nature and serves as a conduit through which monetary policy is effected (Benstom & Smith, Jr., 1975). At micro-level, studies have shown that financial intermediation stimulates the restructuring and liquidation of distressed firms (Araujo & Minetti, 2007), as well as eliminating the inefficiencies associated with the absence of inter-temporal smoothing, as a result of incomplete market. Financial structure is the aggregate size of the financial sector, its sectoral composition, and a range of attributes of individual sectors that determine their effectiveness in meeting users' requirements (Maduka & Onwuka, 2013). Indicators of financial structure include the system wide indicators of size, breadth and composition of the financial system (World Bank & IMF, 2005).

The Nigerian financial industry had been in existence before the country got independence in 1960. There was the Banking Ordinance Act in 1952 which was the first law that allowed banks to operate in Nigeria. Many banks that had the required funds as capital base obtained a license to operate subject to supervision from the government. Only three foreign banks and two indigenous banks were working at that time with 20 branches each. The CBN was established in 1958 under the CBN Act. It started operation in the mid-1959 and was saddled with the responsibility of regulating banks, the distribution of currency and other traditional role performed by the apex banks. These functions are aimed at providing macroeconomic stability in the country. CBN also have the mandate to execute monetary policy decisions and act as the bankers' bank were it lend money to commercial banks (Corporate Guide International, 2010). The country saw the establishment of a stock market in 1960. It was formally called the Lagos Stock Exchange and by December 1977 it metamorphosed to Nigerian Stock Exchange. The stock market contributed largely to the development of the financial sector in Nigeria.

Financial Intermediaries

These are financial institutions which specialized in the activity of buying and selling (at the same time) assets and financial contracts (Freixas & Rochet, 2008). Financial intermediaries mediate between the providers and users of financial capital. Financial intermediation involves the transfer of funds from agencies with surplus to agencies with deficit through financial intermediaries.

Freixas and Rochet, (2008) identified financial intermediaries as commercial companies, firms, whose behaviour can be analyzed in the same way as the economists analyze any other type of firm. Products of financial intermediaries like every other commercial company are the loans and advances granted to clients and the main variable inputs are the deposits mobilized from depositors. Hence, financial intermediaries can be regarded as commercial companies that produce different types of loaning products for individuals who wish to borrow with the sole purpose of profit maximization which occurs as a result of the

difference between the interest perceived for the granted loans and the interest abated for the attracted deposits. The maximization of profit is made when the difference between the total incomes minus the total costs is maximum; that is when the marginal income is equal to the marginal cost.

Diamond (2014) observed that financial intermediaries create assets for creditors and liabilities for debtors which are much more attractive f or each of them than if the transfer of funds from creditor to debtor were to be made directly between the two parties.

Fama (1980) identified the functions of financial intermediaries to include: the reduction of transaction costs; reduction of liquidity risk; information provision; and debt renegotiation. The first function concerns the problem of accessibility of financial markets for households/individuals and firms. The second and third functions are concerned with the services banks offer to savers, which cannot be obtained from financial markets while the fourth function is concerns with the services a bank offers to its borrowers rather than to depositors.

Economic growth and development have been debated for centuries with no unanimously acceptable definition. However, most of the theoreticians think of economic development as a process that generates economic and social, qualitative changes, which result to increase in real national product. In contrast and compared to development, economic growth is an increase of the national income per capita, and it involves the analysis, especially in quantitative terms, of this process. It involves the increase of the GDP, GNP and NI. Therefore, of the national wealth, including the production capacity, expressed in both absolute and relative size or per capita which encompasses also the structural modifications of the economy (Haller and Romania, 2012).

Economic growth according to Nekipelov (2012) is the process of increasing the sizes of national economies, the macro-economic indications, especially the GDP per capita, in an ascendant but not necessarily linear direction, with positive effects on the economic-social sector, while development shows us how growth impacts on the society by increasing the standard of life. Economic growth is a complex, long-run phenomenon, subjected to constraints like: excessive rise of population, limited resources, inadequate infrastructure, inefficient utilization of resources, excessive governmental intervention, institutional and cultural models that make the increase difficult.

Theoretical Review

Intermediary (Market) Based Financial System

The theory of Intermediary (Market) Based Financial System was credited to Levine (2002), and Beck and Levine (2002) who are of the view that financial intermediaries are vital participant in the market. They posited that big, liquid and well-functioning markets foster growth and profit incentives, enhance corporate governance and facilitate risk management. They specifically contribute to effective functioning of the market by providing liquidity which is essential in transaction and in critical time of crisis.

According to the theory, banks are more growth enhancing than market at the early stages of economic growth and development. The theory underscores the importance of well-functioning markets and accentuates the problems of bank-based financial systems. Critics of this theory stressed the short coming of intermediary based systems by asserting that it revealed information publicly, thereby reducing incentives for investors to seek and acquire information (Boyd and Prescott, 2006). Thus, distortion that emanate from asymmetric information can be alleviated by banks through forming long-run relationships-with firms and through monitoring. However, Stiglitz, (2005) and Blide, (2003) argued that bank based arrangement can produce better improvement in resource allocation and corporate governance than market-based institutions.

Bank Based Financial System

Gerschenkron (1962) was the leading contributor to the theory of bank-based financial system. He stresses the positive role of banks in development and growth. The theory opined

that banks can finance development more effectively than markets in developing economies and in the case of state-owned banks, market failures can be overcome and allocation of savings can be undertaken strategically. In a way, those banks that are not impeded by regulatory restrictions, can exploit economies of scale and scope in information gathering and processing. Levine (2002) provided more details on these aspects of bank-based systems.

In particular, the free-rider problem inherent in atomistic markets in acquiring information about firms is emphasized by Stiglitz (1985). But well-developed markets quickly revealed information to investors at large and thereby dissuading individual investors from devoting resources toward researching firms. Thus, banks can make investments without revealing their decisions immediately in public markets and this creates incentives for them to research firms, managers, and market conditions with positive ramifications on resource allocation and growth.

Financial Services Based Financial System

The financial services view downplays their importance in the sense that the distinction between bank-based and market-based financial systems matters less than was previously thought (Levine, 1997). It is financial services themselves that are by far more important than the form of their delivery (World Bank, 2001). The issue is not the source of finance in the financial services view, but the creation of an environment where financial services are soundly and efficiently provided. The emphasis is on the creation of better functioning banks and markets rather than on the type of financial structure. Simply put, this theory suggests that it is neither bank nor markets that matter, but both. They are different components of the financial system; they do not compete, and as such ameliorate different costs, transaction and information, in the system (Demirguc-Kunt & Levine, 2001). Under these circumstances, financial arrangements emerge to ameliorate market imperfections and provide financial services that are well placed to facilitate savings mobilization and risk management, assess potential investment opportunities, exert corporate control, and enhance liquidity. Consequently, as Levine (2002) argued the financial services view places the analytical spotlight on how to create better functioning banks and markets, and relegates the bank-based versus market-based debate to the shadows.

The Law and Finance View Theory

The law and finance view, initiated by La Porta, Lopez de-Silanes, Shleifer, and Vishny (1998), emphasized the role of creditor and investor rights for financial intermediation. In countries where the legal system enforces these rights effectively, the financial system also becomes more efficient in providing services to the private sector. Consequently, the quality of the legal system is a strong predictor of financial development. Empirically, this view suggested a positive relationship between economic performance and the component of financial development identified by the legal environment. Evidence from cross-country growth analysis supported this view (Levine 1999). The implication of the law and finance view is that the establishment of an appropriate legal environment will facilitate the development of banks and stock markets, which enhances economic performance.

Supply-Leading and Demand-Following Theory

This study is anchored on this theory of the financial deepening-growth nexus. According to Agu and Chukwu (2008) the leading proponent of the supply-leading hypothesis is Schumpeter (1911), supported by Gurley and Shaw (1967), McKinnon (1973), King and Levine (1993), and Calderon and Liu (2003) among others. The theory asserts that financial development has a positive effect on economic growth. Accordingly, the effect runs from financial development to economic growth and is caused by an improvement in the efficiency of capital accumulation or an increase in the rate of savings as well as the rate of investment. One of the most significant effects of the supply-leading approach is that, as entrepreneurs have new access to the supply-leading funds, their expectations increase and new horizons (or possible alternatives) are opened up, thereby making the entrepreneur to think big.

The demand-following view, on the other hand, states that financial development responds to changes in the real sector. The Keynesian theory of financial deepening asserts that financial deepening occurs due to an expansion in government expenditure. In order to reach full employment, government should inject more money into the economy by increasing its expenditure. Hence, increase in government expenditure, increases aggregate demand and income; thereby, raising demand for money (Mckinnon, 1973).

Thus, the causal relationship between financial development and economic growth depends on the stage of economic development. In the early stages of economic development, the supply-leading view stimulates real capital formation. The development of new financial services creates new opportunities for savers and investors and causes an increase in economic growth. The supply-leading view become less important as financial and economic development proceed, and gradually the demand-leading view start to dominate.

Endogenous Growth Theory

The endogenous growth theory emphasized the role of financial intermediaries in economic growth. They show how there can be self-sustaining long-run growth as a result of a developed financial markets and better functioning financial intermediaries. The influence of financial markets on economic growth can be best seen in the simplest of this endogenous growth models. The model of Pagano (1993) may be utilized to make the point. In this framework the "AK" model, in which aggregate output is a linear function of the aggregate capital stock, can be expressed as:

$$Y_t = AK_t \quad \ldots (1)$$

Pagano first assumed that the population is stationary. He also assumes that a single good is produced in the economy, which can be consumed or invested (to depreciate at the rate of δ per period); and thirdly, he assumed that a proportion $(1-\varphi)$ of the flow of saving is lost during financial intermediation.

Following from these assumptions, gross investment can be expressed in the form below:

$$I_t = K_{t+1} - (1 - \delta) K_t \quad \ldots (2)$$

Capital market equilibrium is given by:

$$\varphi S_t = I_t \quad \ldots (3)$$

This follows from combining the third assumption with the capital market equilibrium condition (saving = investment) that rules in a closed economy with no government. From equation (2) the growth rate of output, Y, at time t + 1 will now be:

$$g_{t+1} = Y_{t+1}/Y_{t-1} = K_t+1/K_{t-1}$$

Using equation (3) and dropping the time indices the steady-state growth rate can now be expressed as:

$$g= A - \delta=A\varphi s - \delta \quad \ldots (4)$$

Where s = S/Y is the gross saving rate.

Equation (4) showed that financial development can affect growth in three ways: (a) Improving the allocation of capital by raising A, the social marginal productivity of capital, financial intermediaries improve the allocation of capital. This can be done in two principal ways: first, by inducing individuals to invest in riskier but more productive technologies by providing risk-sharing opportunities; and second, by collecting information and making sure that the most productive investments are financed. (b) Channeling funds to firms by raising φ, the proportion of saving channeled to investment, intermediaries can help to increase the growth rate. (c) Affecting the savings rate by raising s, the private savings rate, and the financial system increases the resources available for capital accumulation, and given that returns to capital are non-decreasing, the financial system can permanently raise the rate of growth of output per capita.

Review of Empirical Studies

This section reviewed empirical studies on related works. King and Levine (1993) conducted a pooled cross-country time-series survey of eighty countries between the period 1960-1989 with a view to establish the relationship between financial development and economic

growth. Four variables were used as proxy for financial development; financial depth, relative importance of specific financial institution, proportion of credit allocated to the private sector, and the ratio of claims on the non-financial private sector. On the other hand, the average long-run real per capital GDP, rate of physical capital accumulation, ratio of domestic investment to GDP, and residual measure of improvement in the efficiency of physical capital allocation were used as a proxy for economic growth. Using the cross-country regression, the study established that the four indicators of financial development were positively and statistically related to growth.

Levine, Loayza, and Beck (2000) conducted a study on financial intermediation and economic growth. The study sought to establish the impact of endogenous component of financial intermediation on economic growth. A robust methodology, which comprises two models and two estimation techniques, was employed. The study used the Generalized Methods of Moments (GMM) to estimate its parameters. Results showed a strong positive impact of the endogenous components of financial intermediation on economic growth.

McCaig and Stengos (2005) introduced more instrumental variables with a view to establishing a more robust empirical relationship between financial intermediation and economic growth. The study uses a cross-country analysis of 71 countries for the period 1960 to 1995. A linear regression model, which defines economic growth as a function of financial intermediation and a set of conditioning variables, was estimated using the Generalized Method of Moments (GMM). This study supported the argument that a positive relationship exist between financial intermediation and economic growth.

Odhiambo (2008) examined the dynamic causal relationship between financial depth and economic growth in Kenya. The study focused on the period, 1969 to 2005, and included savings as an intermitting variable. To achieve this task, this study adopted two econometric techniques; the dynamic tri-variate granger causality test and the error correction model (ECM Modeling). The result showed one-way direction causality, from economic growth to finance. In other words, that finance plays a minor role in the attainment of economic growth in Kenya.

Gries, Kraft, and Meierrieks (2009) tested for the causality between financial deepening, trade openness, and economic development. This study focused on 16 Sub-Saharan African countries, using annual time series observations. For the purpose of establishing the causal relationships, the Hsiao-Granger method, the Vector Auto-Regression (VAR), and the Vector Error Correction Model (VECM) were used. Result showed sparse support for the hypothesis of finance-led growth. It however, suggested that the adoption of a more balanced policy approach may reduce financial system deficiencies among the Sub-Saharan Countries.

Bangake and Eggoh (2011) supported the view of an existing two-way directional causality between financial development and economic growth among developing countries. This study focused on seventy-one countries, which included eighteen developing countries, for the period 1960 to 2004. The study carried out its empirical analysis using both the Panel Co-integration tests and the Panel co-integration estimation (that is, Dynamic OLS and panel VECM approach). Results established that both financial development and economic growth have influence on one another. The study recommended that a long-run policy approach may prove beneficial among the developing countries.

From the studies so far reviewed, none used Nigerian Data in examining the existence of a bi-directional causality between financial intermediation and economic growth. This study therefore, sought to fill this gap.

3. METHODOLOGY

The data for this study were obtained mainly from Central Bank of Nigeria (CBN) Statistical Bulletins and Annual Reports (www.cenbank.org), Bureau of Statistic and World Bank Global Financial Development Data. All the data used are country aggregate level annual data. The study used 'the ratio of bank deposit liabilities to nominal GDP (BDL / GDP). It is considered a better indicator of financial depth, as it excludes currency held outside the

banking system from broad money stock (M_2). The ratio of banks' credit to the private sector to GDP, as one of the indicators of activity of financial intermediaries points out to the role that financial sector, and especially deposit institutions have in the financing of economy (Levine & Zervos, 1998; Calderón & Lui, 2003). This indicator is decomposed to the ratio of banks' credit to private enterprises to GDP (BCPG) and ratio of bank credit to households to GDP (BCH). The indicator of the development of financial intermediation which often serves to provide direct information about domestic assets allocation was used. That is, the ratio of banks' credit to the nonfinancial private sector to total domestic credit (BCDC) (King & Levine, 1993).

Real Gross Domestic Product growth rate (GDPG) was used as indicator of economic growth. The observed period is determined by the data that are available for Nigeria, and it covers a time span from 1987 - 2017. The monetary variables data are collected from CBN while data on nominal GDP and real GDP growth rate are collected from the database of the National Bureau of Statistic. All considered variables are expressed in local currency. Data collected was analyzed using E-views software version 13.0. Table 1 provides a summary of the variables used.

Table 1: Short Description and Abbreviations of Variables used

Description of variable	Abbreviation for variable
The real GDP growth rate	GDPG
Ratio of bank deposit liabilities to nominal GDP	BDG
Ratio of bank credit to private enterprises to GDP	BCPG
Ratio of bank credit to households to GDP	BCHG
Ratio of bank credit to the nonfinancial private sector to total domestic credit	BCDC

Data are collected on a quarterly basis. The research on causal relation between the development of financial intermediation by banks and economic growth has been carried out using Toda-Yamamoto procedure of Granger non-causality test. The most frequently used operational definition of causality in econometrics is Granger definition (Granger, 1969), which states that: variable *x* is said to cause *y* (*x*→*y*), if the present value of variable *y* can be predicted with greater accuracy based on the knowledge of the past values of variable *x*, with other conditions unchanged (*ceteris paribus*). Toda-Yamamoto procedure of Granger non-causality test basically involves four steps. Firstly, we need to find the highest order of integration in the variables (dmax). For this purpose, we use an Augmented Dickey-Fuller (ADF) (Dickey and Fuller, 1981) unit root test, or to be more precise we test the autoregressive model:

$$\Delta X_t=\beta_0+ \beta_1 t+ \beta_2 X_{t-1} + \sum_{i=0}^{m} \alpha 1 \Delta Xt - 1 + \mu t$$

Where: $X_t$is a variable of interest (gdp_t, bdg_t, $bcpg_t$, $bchg_t$, $bcdc_t$), *t* is time trend, $\mu_t$is an error term with white noise features, β_0, β_1, $\beta_2$and $\alpha_i$are set of parameters that are estimated. This unit root test is applied to the level variables as well as to their first differences. The null hypothesis tested is that the variable under investigation has a unit root. That is H_0: $\beta_2= 0$, against the alternative that it does not, that is H_1: $\beta_2< 0$.

If the calculated statistics is greater than McKinnon's critical value, then the H_0 or that the variable is not stationary, is not rejected. For the robustness of the obtained results of the analysis we also use one more unit root test, in order to eliminate the influence of autocorrelation errors, which was developed by Phillips and Perron (P-P) (1988). Secondly, it is necessary to find the optimal number of lags for the VAR model (k).

Thirdly, it is necessary to construct VAR of order $k+d_{max}$ in levels, which in general, for two variables is:

$$\mathrm{Yt} = a_0 + \sum_{i=1}^{k+dmax} \alpha 1 Yt1i + \sum_{i=1}^{k+dmax} b1 Xt1i + \mu_{y1}$$

$$\mathrm{Yt} = c_0 + \sum_{i=1}^{k+dmax} c1 Xt1i + \sum_{i=1}^{k+dmax} d1 Yt1i + \mu_{y1}$$

Where: a_0 and c_0 are the constants, X and Y are the variables, a_{1i}, b_{1i}, $c_{1i}$and $d_{1i}$are parameters of model, k is the optimal lag order, $d_{max}$is the maximal order of integration of the series in the system, μ_{Yt} and μ_{Xt} are the white noise. We estimate VAR of order ($k+d_{max}$) using Seemingly Unrelated Regression (SUR) because the power of the Wald test improves when SUR technique is used for the estimation (Rambaldi & Doran, 1996).

Finally, we conduct Wald test (also known as modified Wald or MWald) for testing the significance of the parameters of a VAR($k+d_{max}$) model. To test the hypothesis that "*X does not Granger cause Y*" from equation (2a), we test H_0: $b_{1i} = 0$ against H_1: $b_{1i} \neq 0$, (i = 1...k). Similarly, to test the hypothesis "*Y does not Granger cause X*" from equation (2b), we test, H0: d1i = 0 against H1: d1i ≠ 0, (i = 1...k). Wald test is applied on the first k coefficient matrices, whereas the coefficient matrices of the last d_{max} lagged vectors in the model are ignored (since they are regarded as zeros). In that case the Wald test statistics follows asymptotic λ2 distribution with *m* degrees of freedom and it can be applied even if $X_t$and Y_t are I(0), I(1) or I(2), co-integrated or non-co-integrated with a condition that the order of integration does not exceed the true lag length of the model (Toda and Yamamoto, 1995).

4. DATA ANALYSIS AND DISCUSSION OF RESULTS

In order to eliminate the seasonal impact on variables, a procedure of seasonal adjustment time series was conducted by using X-12 ARIMA method. The time series values were transformed into logarithmic form (apart from series of the rate of growth of real GDP (GDP) which in its structure has negative values). Then, the ADF and P-P unit root tests are applied to see the integrated properties of time series variables. The presence of unit root is tested using the model where trend and intercept are included as well as model where only intercept is included. The results of ADF and P-P unit root tests are shown in Table 2a. They indicate that the null hypothesis of non-stationary is rejected for time series GDP and BCHG, that is, these series are stationary in levels. The remaining three time series (BDG, BCPG and BCDC) have unit root in levels when both are included trend and intercept, or when only intercept is included. This indicates that these series are non-stationary at their level form.

Table 2 A: The Results of ADF and Phillips-Perron Unit Root Tests (Level)

Variable	Deterministic components	ADF Statistic	Deterministic components	P-P Statistic
Gdp	Trend and intercept	-5.053647*	Trend and intercept	-5.068413*
	Intercept	-4.083083*	Intercept	-4.086267*
Bdg	Trend and intercept	-1.619450-	Trend and intercept	-0.810690
	Intercept	1.913208	Intercept	-1.735616
Bcpg	Trend and intercept	-2.247344	Trend and intercept	-1.496326
	Intercept	-0.867568	Intercept	-1.135929
Bchg	Trend and intercept	-2.154962	Trend and intercept	-5.215539*
	Intercept	-4.902294*	Intercept	-19.05775*
bcdc	Trend and intercept	-0.517999	Trend and intercept	-0.716484
	Intercept	-1.487516	Intercept	-1.588369

Note: the number of lags in model was determined by Schwarz information criterion.
Asterisk (*) denote statistically significant at 1%.
Source: Field Survey, 2018

Furthermore, the study conducted the ADF and P-P unit root tests on the first differences of BDG, BCPG and BCDC. The null hypothesis of non-stationary is rejected at the first difference of each variable as shown in Table 2b. According to the results of unit root tests the study draw a conclusion that the given time series are integrated to order one, I (1), that is, non-stationary in their levels, and stationary in their first differences.

Table 2 B: The Results of ADF and Phillips-Perron Unit Root Tests (1st Difference)

Variable	Deterministic components	ADF Statistic	Deterministic components	P-P Statistic

Δbdg	Trend and intercept	-2.996943	Trend and intercept	-3.005398
	Intercept	-2.754040***	Intercept	-2.743302***
Δbcpg	Trend and intercept	-3.706986**	Trend and intercept	-3.534463***
	Intercept	-3.752914*	Intercept	- 3.581075**
Δbcdc	Trend and intercept	-3.497487***	Trend and intercept	-3.487586***
	Intercept	-2.311438	Intercept	-2.243039

Note: The number of lags in model was determined by Schwarz information criterion. Asterisk (*), (**), (***) denote statistically significant at 1%, 5% and 10% levels, respectively.

Source: Field Survey, 2018

Given that the maximal order of integration (d_{max}) equals 1, the study determined the optimal lag length (k). For that we rely on Akaike information criterion (AIC) and Schwarz information criterion (SIC). On the basis of the results, all of the information criteria give unambiguous answer, pointing to the lag length 1. However, to remove the present series correlation in the model, the lag length goes to 2. Considering that 3 of 5 variables are stationary in the first differences, that means that is $d_{max}=1$, whereas k = 2. Therefore, in order to examine causality between financial intermediation by banks and economic growth, VAR model is constructed, consisting of five variables in levels, of order $k+d_{max} =1+2=3$. By using the framework of seemingly unrelated regression (SUR) for a VAR(3), the study estimated the following system of equations:

$$\begin{bmatrix} gdp_t \\ bdg_t \\ bcpg_t \\ bchg_t \\ bcdc_t \end{bmatrix} = A_0 + A_1 \begin{bmatrix} gdp_{t-1} \\ bdg_{t-1} \\ bcpg_{t-1} \\ bchg_{t-1} \\ bcdc_{t-1} \end{bmatrix} + A_2 \begin{bmatrix} gdp_{t-2} \\ bdg_{t-2} \\ bcpg_{t-2} \\ bchg_{t-2} \\ bcdc_{t-2} \end{bmatrix} + A_3 \begin{bmatrix} gdp_{t-3} \\ bdg_{t-3} \\ bcpg_{t-3} \\ bchg_{t-3} \\ bcdc_{t-3} \end{bmatrix} + \begin{bmatrix} \mu_{gdp} \\ \mu_{bdg} \\ \mu_{bcpg} \\ \mu_{bchg} \\ \mu_{bcdc} \end{bmatrix}$$

I. $H_0: a_{12}^{(1)} = a_{12}^{(2)} = 0 \longrightarrow$ bdg *does not Granger cause* gdp

II. $H_0: a_{21}^{(1)} = a_{21}^{(2)} = 0 \longrightarrow$ gdp *does not Granger cause* bdg

III. $H_0: a_{13}^{(1)} = a_{13}^{(2)} = 0 \longrightarrow$ bcpg *does not Granger cause* gdp

IV. $H_0: a_{31}^{(1)} = a_{31}^{(2)} = 0 \longrightarrow$ gdp *does not Granger cause* bcpg

V. $H_0: a_{14}^{(1)} = a_{14}^{(2)} = 0 \longrightarrow$ bchg *does not Granger cause* gdp

VI. $H_0: a_{41}^{(1)} = a_{41}^{(2)} = 0 \longrightarrow$ gdp *does not Granger cause* bchg

VII. $H_0: a_{15}^{(1)} = a_{15}^{(2)} = 0 \longrightarrow$ bcdc *does not Granger cause* gdp

VIII. $H_0: a_{51}^{(1)} = a_{51}^{(2)} = 0 \longrightarrow$ gdp *does not Granger cause* bcdc

The existence of causality is confirmed by rejecting null hypothesis in case of MWald statistic test that is statistically significant at 1%, 5% or 10% significance levels. The results of testing five-variate VAR(3) model are given in Table 3. The results of tests of restrictions from a VAR estimated by the procedure proposed by Toda and Yamamoto (1995) are mixed. Null hypothesis that BDG does not Granger cause Y is not rejected, which means that causal relation in Granger sense from the direction of the ratio of bank deposit liabilities to GDP toward economic growth rate does not exist. Otherwise, the results show that there is a unidirectional causal relation that runs from the direction of economic growth rate toward the ratio of bank deposit liabilities to GDP at 5% significance level.

In this context we could agree with the findings of Gurgul and Lach (2011) and Koivu (2002). However, when considering the share of bank credit to private sector the nature of causality is completely different. It is confirmed that there is a unidirectional causality relation between the share of bank credit to private enterprises in GDP and economic growth rate (for the larger number of countries, the same findings are confirmed by Beck, 2008); the

share of bank credit to households in GDP and economic growth rate. Both results are significant at 1% and 5% significance levels, respectively. On the other hand, no evidence of reverse causality from the economic growth to private enterprise and household credit is found. In the case of relation between the ratio of bank credit to nonfinancial private sector to total domestic credit and economic growth rate, the analysis identified bidirectional causal relation at 10% significance level.

Similarly, Cojocaru (2011) concluded that credit to the private sector plays a positive and economically large role in spurring economic growth. Since the strategic orientation of the Nigerian government is the development of small and medium enterprises, whose sources of funding are mainly banks, the need for adequate regulation and supervision is particularly emphasized, so that the positive effects of the allocation of financial resources are sustainable in the long term.

Table 3: The Results of the Toda -Yamamoto Granger Non-causality

Null Hypothesis	Lag (k)	$k+d_{max}$	λ2 – statistics	p-value	Direction of Causality
bdg does not Granger cause gdp	2	2+1=3	3.459293	0.1773	BDLY ← Y
gdp does not Granger cause bdg			7.727115**	0.0210	
bcpg does not Granger Cause gdp	2	2+1=3	12.45530*	0.0020	BCPEY → Y
gdp does not Granger Cause bcpg			4.054830	0.1317	
bchg does not Granger cause gdp	2	2+1=3	8.288497**	0.0159	BCHY → Y
gdp does not Granger Cause bchg			3.260646	0.1959	
bcdc does not Granger cause gdp	2	2+1=3	5.855410***	0.0535	BCPSTC ⇔ Y
gdp does not Granger cause bcdc			5.723306***	0.0572	

Note: Asterisk (*), (**), (***) denote statistically significant at 1%, 5% and 10% levels, respectively.

Source: Field Survey, 2018

In the introductory section, it was stated that banking sector provides the most important channel of financial intermediation in Nigeria. In this regard, the primary goal of the Nigerian banking sector over the next decade should be to maintain the high growth potential and stability of the banking sector. It means the continuation of the current strategy with the necessary increase of the competition within the sector and between other forms of financial intermediation. The implication of the results is that financial deepening effectively impacts economic growth in the short run through innovations in overall bank-based instruments comprising of Ratio of bank deposit liabilities to nominal GDP (BDG) and Ratio of bank credit to private enterprises to GDP (BCPG). In the long-run, it was the activity indicators (Ratio of bank credit to households to GDP - BCHG) that impact more on economic growth.

This in simple terms means that combined activity instruments of financial deepening have strong transmission effect on economic growth in the long-run than size instrument. However, it is worthy to note that bank credit to private sector as a ratio of GDP has a declining transmission effect which is an indication of slow pace of private sector investment due to difficulty private sector face in obtaining credit facilities.

Maintaining the high growth potential of the banking sector should open the possibility of its internal diversification. Preferably, the activation of diverse forms of banking-savings banks in the deposit market and microfinance institutions in the credit market. These forms of

intermediation should reduce the cost of financial intermediation and increase the availability of financial resources.

4. CONCLUSION

This study was conducted to identify the bi-directional relationship which exists between financial intermediation and economic growth in Nigeria from 1987 to 2017. Evident from the results of the analyses showed that the impact of banks is felt most under the regime of financial liberalization. The result of the Pairwise Granger Causality test showed that under the era of intensive banking regulations and guided deregulations, bank credits do not cause GDP growth, but rather, GDP influence bank credit. Findings also showed that unidirectional causality flows from both private enterprise credit and household credit to GDP; and from GDP to economic growth. Thus, the relationship is bi-directional. Bi-directional causal relation also exists between the share of bank credit to non-financial private sector and economic growth. The results showed that banking sector in Nigeria has an important role in the process of economic growth, especially when it comes to bank credits to non-financial private sector. In this regard, the results of this study should be helpful to policymakers in adopting adequate reforms to promote financial system development and economic growth.

5. RECOMMENDATIONS

Findings showed that financial transmission affects economic growth in Nigeria. Results revealed that market-based financial instruments are more effective in stimulating economic growth at long run in Nigeria. This indicates that capital market has become important after financial reforms and has found to be significant in stimulating economic growth in Nigeria at long run even though bank continues to play a dominant role in facilitating economic growth at short run. However, if monetary authority and financial institutions can encourage demand for credit by decreasing cost of capital to stimulate demand for capital, it will go a long way to increase the financial intermediation functions carried out by banks and other financial institutions.

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Assessment of Dividend Policy and Share Price in the Nigerian Banking Industry

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ABSTRACT

The study is based on the assessment of the impact of Dividend Policy on share price in the Nigerian Banking Industry. A sample of twelve banks quoted on the Nigerian Stock Exchange was selected. The annual reports for the period 2006 to 2017 were utilized as source of data collection together with various Fact Books of the Nigeria Stock Exchange. The study made use of various descriptive statistics together with panel data Regression Analysis in testing hypothesis. Test of Random effect model against the Pooled Regression Model was conducted and there is a sharp evidence that pooled regression is more adequate than the Random. The estimated results of the pooled regression revealed that dividend payment has a positive and significant impact on share price. The result indicates that 0.01% increase in dividend leads to 8.8% rise in share value. Owing to this, it can be concluded that dividend played a positive and significant role in determining the value of banking sector firms. Based on this outcome it is recommended that banking firms should pay dividends more frequently than ever so as to increase their share value because of the signaling effect.

Keyword: Share value, Dividend policy, Inorganic banks, Pooled Regression.

1. Introduction

Dividend can be conceptualized as that portion of a company's net earnings which the directors recommend to be distributed to shareholders in proportion to their shareholdings in the company. It is usually expressed as a percentage of nominal value of the company's ordinary share capital or as a fixed amount per share (Pandy 2003). Dividends are usually paid out of the current year's profit and sometimes out of the general reserves. They are normally paid in cash. Another option available to the company for the distribution of earnings is by stock dividend (bonus issue) which is supplementary to cash dividend (Pandy 2003).

Dividend policy has been an issue of interest in the financial literature since joint stock companies came into existence. Dividends are commonly defined as the distribution of earnings (past or present) in real assets among the shareholders of the firm in proportion to their shareholdings. Capstaff and Marshall (2004), define dividend policy as a practical approach which treats dividend as an active decision variable and retained earnings as a residue. Dividend policy connotes the payout policy which managers pursue in deciding the size and pattern of cash distribution to shareholders over time. Management's primary goal is shareholders wealth maximization which translates into maximization of company's value as measured by the price of the company's common stock (Davis 2006). Dividend policy according to Richard and Stewart (2003) is a trade-off between retained earnings and paying out cash as well as issuing new shares. Where there is no cash, a bonus issue is given. The effect of dividend policy on firm value is largely contended. There has been a number of studies in the relevance or irrelevance of dividend decisions.

In 1961, two noble laureates, Franco Modigliani and Merton Miller (M&M) argued against the claim that an active dividend policy should be pursued as a means of maximizing shareholders

wealth. They argued that in a tax free world, shareholders are indifferent between dividends and capital gains and the value of a company is determined solely by the earning power of assets and investments. This position of Miller and Modigliani has been largely criticized by (Allen and Michaely, 2003; Gordon, 1961, 1962; Bhattacharya, 1979; Amidu and Abor, 2006). They argue that important market imperfections such as asymmetric information, agency cost, taxes, transaction costs, floatation expenses and behavioural factors exist, in reality, and should be taken into consideration when assessing whether dividend has any impact on firm value. Consequently, when the assumptions of perfect market are relaxed, dividend policy is seen as relevant. According to Ross, Westerfield and Jaffe (2002), companies view the dividend decision as quite important because it determines what funds flow to investors and what funds are retained by the firm for reinvestment.

Dividend policy is one of the most complex aspects of finance. Dividend policy has remained a source of controversy despite years of theoretical and empirical research especially the impact of dividend on share value or price. It has long been a puzzle in corporate finance. The raging issue is that there is lack of consensus and unanimity. It is equally well observed that most of the previous empirical studies focused mainly on the developed and emerging economies examining dividend payment generally without focusing on a particular sector using more data from non-financial sector than financial institutions. This development is applicable to Nigeria.

In addition, sufficient works focusing on a particular sector have not been done in the banking sector taking into consideration the inorganic situation of this sector so as to highlight the precise implications of dividend policy on share price. The objective of this study is to assess the impact of dividend policy on share price in the Nigerian banks and the applicability of dividend supremacy theory in this sector. It will equally assist investors in their investment decisions. The hypothesis to be tested in this study is stated in null form: Dividend payment has no significant impact on share price.

2. Literature Review

Several studies have been conducted on Dividend Policy by different researchers in different period of time. Gordon (1963) a proponent of this theory argued that dividends were all that should be considered in the determination of share prices. They asserted that in reality investors operate in a world of brokerage fees, taxes, and uncertainty, it is better to view the firm in the light of these factors. The leading proponent of the relevance of dividend theory, Gordon (1962) suggests that shareholders do have a preference for current dividends and in fact there is direct relationship between the dividend policy of a firm and its market value. Gordon (1961) argues that investors are generally risk-averters and attach less risk to current as opposed to future dividends or capital gains. This “birds in hand” argument suggests that a firm’s dividend policy is relevant since investors prefer some dividends now in order to reduce their uncertainty. Gordon(1962) therefore contended that the payment of current dividends resolves investor’s uncertainty.

Modigliani and Miller (1961) came out with dividend irrelevancy theory and argued against a claim that an active dividend policy should be pursued as a means of maximizing shareholders wealth. They argued that in a tax free world, shareholders are indifferent between dividends and investments. Therefore when investment decision of the firm is given, the split of earnings between dividends and retained earnings is of no significance in determining the value of the firm.

Black (1976) in his study on dividend wrote “The harder we look at the dividend picture, the more it seems like a puzzle with pieces that just don’t fit together” The empirical studies from developed countries (Linter 1956, Baker 2007, Tse 2005, Armot and Asness 2003) have identified a positive relationship between dividend payout and share prices.

Adaoglu (2000) examined dividend policy in developing country using corporations listed on the Istanbul stock market and contrary to the empirical evidence which support stability in dividend behavior of company in developed capital market, found out that Turkish companies followed unstable dividend policy. Al-Twajiry (2007) examined dividend policy on Malaysia firms and identified influences of dividend policy on stock price of Malaysia firms. This is supported by the study carried out by Pradhan (2003) in Nepal indicated strong dividend effect and a very weak retained earning effect indicating the attractiveness of dividend among Nepalese investors. In Nigeria the controversy surrounding the effect of dividend policy on stock price is similar to developed countries and developing countries.

While, some studies (Usifo 2008, Adesola 2009, Uwuigbe 2012) indicated strong positive influence of dividend policy on stock prices in Nigeria, Amadasu (2011) submitted that dividend alone cannot increase the stock price and recommended strong policies for earnings, return on capital employed and price earnings ratio. Osase and Anao (1999) supporting dividend relevancy theory submitted that dividend payout levels significantly determines a company's stock price, adding that the Bird-in-Hand theory stressing uncertainty of future earnings making investors to settle on the certainty of dividend payment now to determine the stock price.

Ahmed and Javid (2009) carried out a study in Cyprus stock market and documented that dividend payout affects the overall market value of the firms. In a similar development, Al-Makawi, Rafferty and Pillai (2010) were of the view that dividend policy communicates the investors about future prospects of the firm. Rabindra (2012) using data from Nepal revealed that the impact of dividend is more pronounced than that of retained earnings in the context of that country. Samuel (2011) using panel data of sixteen commercial banks in Ghana found out that dividend payment affected the firms' value.

Nadeem (2004) focusing on Pakistani capital market submitted that dividend payment had a great impact on stock price. Oyinlola (2014) conducted a study on twenty-two companies that are quoted on the Nigerian stock exchange using regression analysis and submitted that dividend payout and retained earnings are significantly relevant in the market price per share of the companies. Adaramola (2012) researched into the information content of dividend in Nigeria using Granger Casualty test and documented that dividend payment has significant information content and it affects stock prices in Nigeria.

3. Data and Methods

This study is based on the secondary data. This study covers the banking industry. A sample of 12 inorganic banks was selected for the period 2006 – 2017. The annual reports of the banks were used together with stock exchange fact books.

Model specification:

$$mps_{it} = f\left(dps_{it},\ \mathrm{rte}_{it},\ \mathrm{pat}_{it},\ \mathrm{eps}_{it},\ \mathrm{per}_{it},\ \mathrm{roe}_{it},\ \mathrm{debt}_{it},\ \mu_{it}\right)$$

Where mps = market price of share

dps = dividend per share

rte = retained earnings

pat = profit after tax

roe = return on equity

eps = earnings per share

per = price earnings ratio

debt = debt capital

it = bank i at time t

4. Data Analysis and Interpretation of Result

The behaviour of the data set employed in this study are examined over the specified time period by calculating various descriptive statistics. The mean, maximum, minimum, standard deviation, skewness, kurtosis and Jarque-Bera were estimated to show the different qualities of each variable data across units and over time. Table 1. provides the output of these statistics.

Table 1. **Descriptive Statistic Results on Specified Variables: DDEBT, DPAT, DPS, DRTE, EPS, and ROE, MPS, PER**

Panel A:	**DDEBT**	**DPAT**	**DPS**	**DRTE**	**EPS**
Mean	17.40245	7.545587	0.411888	2.062683	718.4481
Max	1329.485	916.6000	1.600000	208.0194	83014.00
Min	-0.9999	-36.5365	0.000000	-165.825	-1266
SD	137.5146	76.68994	0.368111	24.27317	7030.465
Sk	8.525401	11.65923	1.563752	2.309821	11.28607
KT	75.27309	138.2395	4.977962	53.35320	131.5808
JB	361405.2	1234377.	897.5021	167576.0	1116996.
P-value	0.000000	0.000000	0.000000	0.000000	0.000000

Panel B:	**MPS**	**PER**	**ROE**
Mean	7.841329	10.69350	1.471811
Max	49.50000	238.0000	40.48000
Min	0.520000	-116	-20.71
SD	8.873696	27.34896	5.463289
Sk	2.371919	4.087554	3.624434
KT	9.287495	39.72800	26.39088
JB	4065.982	92792.48	39303.98
P-Value	0.000000	0.000000	0.000000

Source: Author's Computation (2019)

The descriptive statistic results on debt capital, profit after tax, dividend per share, retained earnings, size and earnings per share are presented in panel A table 1 while those on investment, market price per share, net earnings, price earnings ratio and return on equity in panel B table 1 respectively. The average values are 17.40245, 7.545587, 0.411888, 2.062683, 7.841329, 10.69350, 718.4481 and 1.471811 respectively for debt capital, profit after tax, dividend per share, retained earnings, earnings per share, market price per share, price earnings ratio and return on equity. Characteristically, all the variables have positive average values which mean they have tendency to be increasing over time. However, earnings per share and debt capital have the highest increasing tendencies because their mean values appear to be the largest. Return on capital ranges from -20.71 to 40.48000; while earnings per share ranges from -1266 to 83014.00. This has informed us that return on equity and earnings per share increase astronomically due to some banks whose earnings have increased over time. Market price per share ranges from 0.520000 to 49.50000. Since the minimum market value per share is 0.520000 it means that the assumption of non-negative is not uttered. And the market price from 2003 to 2014 has not exceeded 49.50 Naira for any of these stocks and has not gone below 52 Kobo. Profit after tax ranges from -36.5365 to 916.6000 million. The negative minimum value suggests that compulsory tax exceptions must have been given to some of these banks. Also, the maximum profit ever earned in the sector has not exceeded 916.6000 billion Naira. Dividend income per share has the highest

value of 1.600000 and minimum value of 0.000000 Naira. Thus, the maximum amount of dividend ever paid per unit of stock is 1.60 and there are evidences of zero dividend payment during some years. The retained earnings is found to have maximum value of 208.0194 and minimum value of -165.825; while net earnings ranges from -20.82 to 30.38000 implying that the maximum net earnings are about 30.38 billion Naira and there are incidences of zero earnings confirming the presence accidental losses in the sector. The value of standard deviations for debt capital, profit after tax, dividend per share, retained earnings, size, earnings per share, investment, market price per share, net earnings, price earnings ratio and return on equity are 137.5146, 76.68994, 0.368111, 24.27317, 0.101269, 7030.465, 0.344519, 8.873696, 3.422860, 27.34896 and 5.463289 respectively. This means earning per share is the most volatile variable followed by bank debt and the less volatile variable is size. The skewness values of all the variables are greater than zero excepts in two cases- investment and size- where the values are less than zero meaning that all the variables are positively asymmetric in nature besides investment and size that are negatively skewed. All the kurtosis values are asymptotically larger than three suggesting that the distribution of the variables exhibits long tail. Lastly, the probability values of the JB statistics for each of the variables are smaller than the alpha value at 0.1. Therefore, the null hypothesis that the variable series is normally distributed is rejected. At first difference, the series are not normally distributed but can they be stationary? This treated in table 2 below:

Stationarity Test

The researcher applies ADF- Fisher technique for this purpose. The results are reported in Table 2.

Table 2 Unit Root Test Results on the Series of DDEBT, DPAT, DPS, DRTE, DSIZE, EPS, INV, ROE, MPS, NE and PER

Variable Series	ADF-Fisher-Stat	P-Value	Remark
DDEBT (-1)	-4.1377	0.0000	Stationary at first difference
DPAT (-1)	-4.21357	0.0000	Stationary at first difference
DPS (-1)	-2.69754	0.0035	Stationary at first difference
DRTE (-1)	-4.99349	0.0000	Stationary at first difference
DSIZE (-1)	-3.72227	0.0001	Stationary at first difference
EPS (-1)	-2.72922	0.0032	Stationary at first difference
INV (-1)	-2.08709	0.0184	Stationary at first difference
ROE (-1)	-1.90612	0.0283	Stationary at first difference
MPS (-1)	-2.85980	0.0021	Stationary at first difference
NE (-1)	-2.02309	0.0215	Stationary at first difference
PER (-1)	-3.44343	0.0003	Stationary at first difference

Source: Authors Computation (2019)

Table 2 reveals the results of the unit root test conducted on the series of debt capital, profit after tax, dividend per share, retained earnings, size, earnings per share, investment, market price per share, net earnings, price earnings ratio and return on equity whose ADF-Fisher statistics are -4.1377, -4.21357, -2.69754, -4.99349, -3.72227, -2.72922, -2.08709, -1.90612, -2.85980, -2.02309 and -3.44343 respectively; while their associated probabilities are 0.0000, 0.0000, 0.0035, 0.0000, 0.0001, 0.0032, 0.0184, 0.0283, 0.0021, 0.0215 and 0.0003 respectively. In comparison with the alpha value at 5 percent, all the P-values are smaller than this alpha value suggesting that the null hypothesis that there is unit root or the series are not stationary is rejected with 95 percent confidence. Therefore, the series of debt capital, profit after tax, dividend per share, retained earnings, size, earnings per share, investment, market price per share, net earnings, price earnings ratio and return on equity are stationary when integrated to other one. Meaning that by first differencing the series due to the dynamic

nature of the financial market, they are punched from unit root and hence, they can be used for further econometric analyses.

Table 3. Hypothesis testing using pooled-regression.
Estimated Results on the Link between Market Value, Dividend per Share, Price Earnings Ratio and Bank Debt

Regressors	Coefficient	Std Error	Z-Stat	P-Vaue
dps	8.786799	1.859833	(4.72)*	0.000
per	.0607653	.0250551	(2.43)**	0.015
ddebt	-.0026534	.0049839	-0.53	0.594
cons	3.618532	1.064712	3.40	0.001

*Note that the regressan is market price per share (mps), * and ** denote significant at 1% and 5% respectively.*
Source: Author's Computation (2019)

Table 3 shows that the coefficient of dividend per share is about 8.79 with z statistic and probability value of 4.72 and 0.00 respectively. This result means that dividend payment has positive and significant impact on the market value of the banking firm's stocks. Since the relationship is positive, it further implies that 0.01 increase in dividend leads to 8.79 rise in the market value of the firm. Owning to this finding, the Null hypothesis that dividend payment has no significant impact on share value is hereby rejected. This finding is in tandem to the claim of the relevant dividend theory. Price earnings ratio displays a coefficient of 0.06, z-statistic of 2.43 and p-value of 0.015. It means like the dividend, price earning ratio has positive and significant influence on the bank's firms by 6 percent. Conversely, debt capital has negative coefficient (-0.003 by approximation) and the corresponding p value which is 59 percent is larger than the usual 5 percent alpha value. This suggests that an increase in bank debt reduces the market value of the firm. This may probably due to the fact that bank debt in some of the Nigerian banks is geared towards fictitious assets and managers' perquisites or conspicuous demands. Thus, in examining the relationship between value and dividend, the researcher discovers that dividend plays significant role in determining the value of the banking firms but bank's debt appears insignificant. However, the negative impact of debt in this study contradicts Ilaboya (2013) that found out a significant positive impact of debt on share price.

Table 4. Hypothesis testing using pooled-regression with other variables
Estimated Results on the Link between Market Value, Dividend per Share, Retained Earnings and Profit after Tax

Regressors	Coefficient	Std Error	Z-Stat	P-Value
dps	8.785714	1.877319	(4.68)*	0.000
drte	.0060084	.0284564	0.21	0.833
dpat	.0197104	.008973	(2.20)**	0.028
cons	4.061478	1.040853	3.90	0.000

*Note that the regressan is market price per share (mps), * and ** denote significant at 1% and 5% respectively.*
Source: Author's Computation (2019)

The first regressor in table 4 is dividend which had been explained in table 3. The next and last regressors as shown in table 4 are retained earnings and profit after tax respectively. While retained earnings have a coefficient of .0060084 with corresponding p value of 0.833, profit after tax has coefficient of .0197104 and a corresponding p value of 0.028. Given alpha value at 5 percent it means retained earnings do not maintain significant static influence with market value but to the contrary profit after tax does. However, both variables have positive impact on value to the extent that a 1 percent increase in retained earnings leads to about 0.6

rise in market value while 1 percent increase in profit after tax exerts about 1.9 percent rise in market value.

Table 5. Hypothesis testing with the assumption of static dividend policy using pooled-regression with other variables. (roe, eps)

Estimated Results on the Link between Market Value, Dividend per Share, Return on Equity and Earning per Share

Regressors	Coefficient	Std Error	Z-Stat	P-Value
dps	10.4393	2.008754	(5.20)*	0.000
roe	-.265744	.1353038	(-1.96)**	0.050
eps	-.0000684	.0000979	-0.70	0.485
cons	3.943887	1.033947	3.81	0.000

*Note that the regressan is market price per share (mps), * and ** denote significant at 1% and 5% respectively.*

Source: Author's Computation (2019)

As shown in table 5 above the coefficient of dividend still remains positive and significant at 1 percent level (for the third time). The new regressors in this framework are Return on equity and earnings per share which have coefficients of -.265744 and -.0000684 respectively. The corresponding p values are 0.05 and 0.485 respectively. This simply suggests that return on equity and earnings per share have negative impact on value in which an increase in either earning per share or return on equity has the potential to reduce the market value of the banking firms. To be concise, this invariably means increasing the unit of outstanding share reduces the earning per share as well as return on equity which in turn increases the market value of the banking firms in Nigeria.

5. Conclusion and Recommendation

From the findings summarized above, the researcher has drawn conclusions. After examining the nature of the relationship between dividend payment and market value of the firm both at static and dynamic situations, the researcher concludes that there is positive and significant relationship between dividend payment and value under the assumption that dividend payment is static; but if the static assumption is relaxed and emphasis is placed on dynamism, dividend appears insignificant but positive force that explains value.

This study further concludes that dividend or payment influences the value of the firm much more than other independent variables such as retained earnings and earnings per share. This implies that dividend is relevant in determining the value of the banking firm. In view of this, the study recommends that banking firm should pay dividend more frequently than ever. In doing this, they will send signal to the market which is capable to increase the value of the firm.

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FINANCIAL CRISIS OF 2007/2008 AND PERFORMANCE OF CEMENT INDUSTRY IN NIGERIA

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Abstract

The study examined the effects of the financial crises of 2007/2008 on the performance of cement industry in Nigeria. The study specifically examined the effects of the financial crises on the cost of cement production and profitability of cement companies in Nigeria. The study adopted an Ex-post facto research design. It used secondary data collected from the audited annual report of three sampled cement companies for the period 2007 - 2017. Data collected were analyzed using Generalised Least Square statistical technique. Specific findings showed that financial crises have significant negative effect on the cost of cement production and profitability of cement companies in Nigeria. The study recommends that cement companies should look inwards for local raw materials, so as to insulate their business from the vicissitude of international economic scenes.

Keywords: *Financial crises, profitability, cost, and cement production*

1. INTRODUCTION

The significance of this study is borne out of the fact that financial crisis has affected the volume of cement productions in Nigeria (Simon, 2009). Cement productions and other associated by-products such as pipes, culverts, electric poles to mention but a few have not only reduced drastically in production, but also are quite expensive due to the financial crisis. Moreover, there has been low demand for cement products by builders and construction engineers across Nigeria due to high cost of cement per bag. For instance as at 1999, a bag of cement costs five hundred to six hundred only, but between 2014 and 2018, it has increased to two thousand eight hundred and fifty naira.

The consequence of this high cost of cement has brought untold hardship on Nigerians (Ujunwa, Salami & Umar, 2011). The costs of government constructions contracts have doubled; people are finding it difficult to build or acquire houses; the cost of house rents has increased; and the obvious housing deficit could not be remedied by mortgage institutions. The financial crisis though a seemingly past economic event has continued to generate lingering universal catastrophic circumstance resulting in scarcity of hitherto available resources, thereby incapacitating nations from meeting their economic targets, plans and programmes towards development of infrastructure (Abdul, 2008). The financial crisis in 2007 occurred as a result of recession in the financial sector of the United States of America (Ujunwa et al, 2011). It had spiral effects in the financial industry of many nations of the world; thus, affects the performance of cement companies in Nigeria. High capital involved in setting up more cement factories has led to cement supply gap as a result of financial crisis.

There is a decline in the number of existing cement companies in Nigeria (Ajao & Festus, 2011). There are about six major cement manufacturers; Ashaka, Lafarge WAPCO, Dangote, Cement Company of Northern Nigeria (CCNN), Edo Cement (BUA) and UNICEM and several importers but there is still huge supply gap.

A major consequence of the financial crisis in the cement companies in Nigeria is the problem of demand versus supply inequality. Since inception of cement companies in Nigeria, available supply has not been able to meet the ever growing demand of cement. Another challenge as a result of the financial crisis includes lack of sufficient funding to carry out operations especially on large scale. Most of the cement companies in Nigeria have experienced low production, as the cost of raw materials and the maintenance of machines are capital intensive (Ayuba, 2011). Also, the inability of the cement companies to provide an alternative energy due to erratic power supply has led to high cost of production.

The effects of financial crisis also brought about technological inadequacies, high overhead cost which has led to the forced closure of some cement companies such as Nigercem Nkalagu in present day Ebonyi State, Eastern Bulkcem and Ibeto Group. Although, Nigerian government has tried to mitigate the effects of financial crisis to these cement companies through tax holidays, banning importation of bagged cement, yet the effects of financial crisis still persists (Ayuba, 2011).

The broad objective of the study is to examine how the financial crisis of 2007/2008 affects the performance of cement industry in Nigeria. Specific objectives include:

1. To examine the effects of the financial crisis on profitability of cement industry in Nigeria.
2. To identify the effects of the financial crisis on the cost of production of cement industry in Nigeria.

The study hypothesized as follows:

H_{o1}: That the financial crisis has no significant effects on the profitability of cement industry in Nigeria.

Ho_2: That the financial crisis has no significant effects on the cost of production of cement in Nigeria.

The scope of the study is limited to selected firms in Cement companies in Nigeria (Dangote Cement Plc, Cement Company of Northern Nigeria (CCNN), and Lafarge WAPCO Plc) for the period 2007-2017. The justification for using this period is that, it was the period of the financial crisis in Nigeria which witness turbulent times for the cement companies. This study is significance considering the fact that this sector is critical to the entire industrial sector as well as the domestic life of Nigerians. The period it covers and the variables it examines fill the gap in existing literature concerning the effect of the meltdown of 2007/2008. Findings from the study will be of benefit to the manufacturing sector, the regulating agencies, policy makers and the academia that may use it as input in further research. The study is divided into five sections. The next section dwells on literature review; section three dwells on the methodology adopted for the study; section four on conclusion; and section 5 provide policy recommendations.

2. LITERATURE REVIEW

The term, financial crisis defines period when financial networks and financial markets undergo sudden changes in expectations, develop (speculative) bubbles, witness falling prices and frequent bankruptcies, markedly unstable or strained economy to the point where it may collapse (Sanusi 2010). In others words, it is the period where firms and industries experiences difficult times in terms of economic stagnation. Eichengreen and Portes (1987, p.2) observed that the financial crisis was as a result of the "sharp change in asset prices that leads to distress among financial markets participants". It was as a result of the fall in the value of many market instruments leading to widespread effect within the industry and the economy. The interconnectedness of market intermediaries is a major reason why the occurrence of decisive decline in one sector of the market, affect others and may

immediately be felt across other sectors. This is the primary reason why financial crisis brings such devastating consequences on the economy.

The word "crisis" is a Latin wood (Pfaltzgraff, 2008) which connotes decisive moment of difficult and with serious consequences. It is a period of scarcity, famine, and complex situation. All these were the features witnessed in the 2007 global financial crisis. This financial crisis originated in the US owing to a combined market failure that affected financial, traditional mortgage, and subprime mortgage sectors. Although, many have referred to the crisis as subprime mortgage crisis; it was far from than that. A critical analysis showed that the underlying failures were in the policy and market structures. The subprime mortgage merely being the borrower bore the brunt of blame (Ayuba, 2011).

It was the policy failure that made lenders to target the subprime borrowers which promises higher interest returns, and brought the interest rate to 1%; thus, causing the skewness of interest towards mortgage financing. The policy failure made the Latin and African Americans to become targets' of fore-closure, when the initial signs of market collapse appeared and the regulatory authorities merely looked on. When undue pressure mounted on the housing sector and bubbles developed, the financial sector simply focused on the profits it could generate and ignored the banking rules necessary to regulate and check profligacies (Banerjee & Duflo, 2011).

The 2007/2008 financial crisis started due to certain laxities in the US financial system, which spread to Europe initially and then to other global market before lesser African markets. While financial crises have common elements, they do come in many forms. According to Stijn and Kose (2013), financial crisis is often associated with several phenomena, which include 1. substantial changes in credit volume and asset prices; 2. severe disruptions in financial intermediation and the supply of external financing to various actors in the economy; 3. large scale balance sheet problems (of firms, households, financial intermediaries and sovereigns); and 4. large scale government support (in the form of liquidity support and recapitalization).

These forms of financial crises indicate that financial crises are typically multi-dimensional events and difficult to characterize using a single indicator. The literature has clarified some of the drawing factors of the crises, but it remains a challenge to identify definitively their deeper causes. Many concepts and theories have been developed over the years in attempting to explain the causes of financial crises, however, financial crises still persist in the world economy. It sometimes appears to be driven by "irrational" factors (Stijn & Kose, 2013). This irrationality is often revealed in sudden runs on banks, contagion and spillovers among financial markets, limits to arbitrage during times of stress, emergence of asset busts, credit crunches, fire sales, and other aspects of financial turmoil.

Claessens (2013) observed that there are different types of financial crisis. However, this study restricts its discussion to the following: 1. currency crisis, 2. sudden stops crises, 3. foreign and domestic debt crises, and 4. banking crisis. Currency crisis occurs when there is a destabilization in the exchange rate of a currency which makes it difficult for monetary policy instrument to control the fluctuations. It leads to loss of confidence in the investors who quickly shed off their holdings and hold their investment in a more stable currency. It can lead to large withdrawal of direct foreign investment and subsequent capital flight.

Sudden stop crisis involve sudden withholding of direct foreign investment into that country. Models with sudden stops make a closer association with disruptions in the supply of external financing. These models resemble the latest generation of currency crises models in that they not only focus on balance sheet mismatches – notably currency, but also maturity in financial and corporate sectors (Calvo, Izquierdo & Talvi, 2006). They tend to give greater weight, however, to the role of international factors for example, by changes in international interest rates or spreads on risky assets in causing "sudden stops" in capital flows. These models can account for the current account reversals and the real exchange rate depreciation typically observed during crises in emerging markets.

Sudden stops often take place in countries with relatively small tradable sectors and large foreign exchange liabilities (Banerjee & Duflo, 2011). Sudden stops have affected countries with widely disparate per capita GDPs, levels of financial development, and exchange rate regimes, as well as countries with different levels of reserve coverage. Empirical studies find that many sudden stops have been associated with global shocks. For a number of emerging markets, such as, those in Latin America and Asia in the 1990s and in Central and Eastern Europe in the 2000s, following a period of large capital inflows, a sharp retrenchment or reversal of capital flows occurred, triggered of global shocks caused by increases in interest rates or changes in commodity prices. Sudden stops are more likely with large cross border financial linkages.

Ayuba (2011) observed that foreign and domestic debt crises occurs in an economy that borrows indiscriminately either from domestic or from foreign sources, thus, experience debt management crisis. The interest builds up and loan repayment may be far too much to cope with coupled with developmental challenges at hand. This scenario may trigger several other internal disruptions within the economy leading to general economic breakdown.

Banking crisis are quite common, but perhaps not quite understood due to frequency or the different ways through which it occurs. Banks are inherently fragile, making them subject to runs by depositors. Moreover, problems of individual banks can quickly spread to the whole banking system (Jenrola & Daisi, 2012). While public safety nets including deposit insurance can limit this risk, public support comes with distortions that can actually increase the likelihood of a crisis. Institutional weaknesses can also elevate the risk of a crisis (Korinek, 2011). For example, banks heavily depend on the information, legal and judicial environments to make prudent investment decisions and collection of interest on their loans. With institutional weaknesses, risks can be higher. While banking crisis has occurred over centuries and exhibited some common patterns, the timing remains empirically hard to pin down.

It is possible that the financial crisis of 2007-2009 has not been well understood in the media, in politics or in academic discourses. It may be likened to the great depression of 1929 in U.S.; which cause was blamed on people, structures and nations. The public and business communities tried to proffer solution without sufficiently identifying the causes of the crisis. Many believe that the culprits were the bankers, their bonuses, their greed, fraud, corruption, poor corporate governance, creative accounting, the management of mortgages, strategic complementarities and self-fulfilling prophesy, leverage finance, contagion, asset-liability mismatch, uncertainty to mention but a few (Korinek, 2011; Jenrola & Daisi, 2012; Rafaqet & Muhammad, 2012). But these myriads of causes tend to widen the scope too far and make the solution slippery. Perhaps it will save time and effort to categorize the causes into two: regulatory failures and market structures. The former relates to the legal framework, while the later refers to free enterprise system of capitalism. The unbridled interface of these two dynamics rocked the economy of the United States, shook off its financial base, closed down businesses and denied people of daily bread through massive job losses.

The colonial rule introduced cement building materials, and the consequent need to establish administrative and developmental infrastructure. The idea of colonial rule was promoted by British commercial interests in Nigeria (Cain & Hopkins, 1980). Thus, the cement trade in Nigeria was dominated by British entrepreneurs from the beginning. Specifically, a number of British cement traders- mainly agents of the Associated Portland cement Manufacturers (APCM), the British cement multinational, at the time, were the largest cement company in the world. They constituted themselves into a syndicate, (the Cement Marketing Company Limited) and took control of the cement importation business in West Africa. With the increasing demand for cement in Nigeria, Lord Lugard, (the Governor-General) proposed the introduction of cement manufacturing in Nigeria in 1919. The reason, Lugard argued was due to the importance of cement in capital projects. It was also due to its

high bulk and low value that informed the decision to establish a pioneer company (Hay, 1971).

Despite Lord Lugard's recommendation, the syndicate that dominated the importation and supply of cement in Nigeria did not consider the establishment of a local plant to be viable at the time (Hay, 1971). In 1926, for instance, the government decided against the construction of a 25,000 tons cement factory near Makurdi and in Nkalagu, near Enugu, on the excuse of high cost of electricity. It is argued that the high electricity cost would make such factories uncompetitive when compared to the cost of importing cement from the UK (Cain & Hopkins, 1980).

The Cement Marketing Company Limited, however, exploited its close relationship with the colonial government to push for the imposition of higher import tariffs on non-UK companies that tried to supply cement to Nigeria in order to protect British manufacturing interests (Cain & Hopkins, 1980). At the time, Germany, Belgium, Poland, Japan, and Italy were able to export cement to Nigeria at prices that were more competitive than cement imported by the British syndicate. Although the colonial government was able to impose discriminatory tariffs on Japanese cement imports into Nigeria in June 1934, it was unable to do the same for cement imported from other European countries (Cain & Hopkins, 1980). This was because the UK had bilateral agreements with several European countries that precluded it from imposing such discriminatory tariffs. Despite its market disadvantage, the British syndicate was able to maintain its dominance of the Nigerian market arguably because of its superior distribution network and marketing strategy.

One direct consequences of the increased local demand for cement in Nigeria was the establishment of additional cement factories in the country. In 1978, for instance, APCM (UK) established its second Nigeria cement plant, WAPCO in Shagamu, with a production capacity of 900,000 metric tons. This was the same year that APCM changed its name to Blue Circle (UK). In 1979, Ashaka Cement, with a production capacity of 700,000 metric tons, was established in Gombe. In 1980, the Benue Cement Company, with a capacity of 900,000 metric tons, commenced operations. The Federal Government of Nigeria was the core investor in this company. The investment climate of the 1970s was very different from that of the 1950s and 1960s, during the era of the first generation of cement production plants in. By the time these new cement companies were established, it was not possible for foreign business interests to own majority shares in Nigerian cement companies Ujunwa et al., 2011).

Table 1: The First Generation Cement Plants Companies in Nigeria

Companies.	Date of Establishment	Capacity at Establishment (MTPA)
NIGERCEM	1957	120,000
EWEKORO	1960	700,000
BENDEL	1964	150000
CALCEMCO	1965	100000
CCNN	1967	100000

Source: *Manufacturing Association of Nigeria (2016)*

Table 2: Additional Capacity between 2003 - 2008.

Plant	Year	Amount	Capacity(MTPA)
WAPCO (Ewekero)	2003	GBP $130 million	1 M
BCC Expansion (Benue cement)	2004	$400 million	3 M
Obajana (OCP)	2006	$1.2 billion	5 M
Ashaka Cement	2008	$150 million	0.3 M
Unicem (Calabar)	2009	$840 million	2.5 M
TOTAL		$11.8M	10.8 M

Source: *Manufacturing Association of Nigeria (2016)*

Table 3: Cement Production Statistics in Nigeria 1986-2014

Year	Total production in Nigeria	Importation	Local production	Import percentage	Local percentage
1998	4198943	1992588	2206355	47.5	52.5
1999	5584794	3112685	2472099	55.7	44.3
2000	5621640	3336134	2285506	59.3	40.7
2001	8105000	5937000	2168000	73.3	26.7
2002	8112000	6041000	2071000	74.5	25.5
2003	8418000	6437000	1981000	76.5	23.5
2004	8257000	5920000	2337000	71.7	28.3
2005	8678000	6629000	2049000	69.9	21.6
2006	9972722	6753000	3219722	67.7	32.3
2007	10969668	6327000	4642668	57.7	42.3
2008	13402880	6977000	6425880	52.1	47.9
2009	14674144	6719000	7955144	45.8	54.2
2010	14600000	5500000	9100000	37,7	62.3
2011	6400000	5200000	1200000	30.2	69.8
2012	3420000	1800000	1620000	10.0	90.0
2013	9555000	7500000	2055000	3.5	96.5
2014	9725000	7500000	2225000	3.3	96.7

Source: *Manufacturing Association of Nigeria* **(2014)**

The crisis had mixed effects on the manufacturing sector in Nigeria. While there was a general biting reality on the sector, the cement industry took a spiral turn for higher productivity, increase in local content and a declining dependence on foreign content on a consistent basis (Ajao & Festus, 2011). Import of local content declined from 57.7 in 2007 to 30.32 in 2011 and 3.3 in 2014 showing a local increase in local production from 42.3 % to 69.8 % and 96.7% respectively within the same period. Total local consumption rose from 10.9 MMTPA to 17.2 MMTPA and 23 MMTPA within the same period of 2007, 2011, and 2014. This was possible because of the abundant supply of local raw materials for the industry and the backward integration policy which attracted the attention of the manufacturers.

In the words of the Central Bank Governor of Nigeria (CBN), the global financial meltdown led to the crumbling of many businesses including otherwise formidable corporate giants across the world (Soludo, 2008). In Nigeria, the Foreign Direct Investment (FDI) declined following the market shocks and the weakening confidence in investors (Adamu, 2008; Aluko, 2008). The cement industry was not spared in this as the world giant; Lafarge shrank its investment in the sector. This however, paved way for the Dangote Cement, a local player, to double its effort and take a lion share in the market space. On the hills of the financial meltdown, the Nigerian foreign reserve fell from US$62,081 billion in September, 2008 to US$53.000.36 billion in December, 2008 (CBN, 2008). Foreign reserve deteriorated drastically leading to scarcity of foreign currency and increase in exchange rate. This put the banks in a precarious situation and lending to manufacturers declined (Ujunwa et al., 2011). This situation further eroded investors' confidence in the stock market making issues of new capital difficult, and the stock prices continue to plummet.

Furthermore, the meltdown led to the reversal of portfolio investment according to Udo and Ebong (2011). Before the 2008 crisis, the capital market accumulated about N12.6 trillion around the first quarter of 2008. Public and private sector trooped in their numbers to raise fund. The financial meltdown has seen the capitalization eroded to about 5.4 trillion in the fourth quarter of 2009 (Rafat & Muhammad, 2012). This eventually led to massive drop in equity wealth over the past years and the sharp decline in capital investment indicating

clear manifestations of limits on foreign trade finances and bank credit by the financial institutions.

On the capital market, where long term finance is sourced for organization's productive activities, during this period, there has been a capital market down turn and divestment by foreign investors. This situation caused liquidity constraints for most banks, loan default caused increase in provision for bad debt; thus, reducing their profitability (Oladipupo, 2010). The global financial crisis affected cement industry in Nigeria more in 2009 compared to 2008. This is reflected in the sharp drop in global demand for commodities resulting from the crisis (UNCTAD, 2010). Nigerian government experienced a sharp decline in trade and commodity prices in export merchandise by over 25 per cent during that period. Banks found it difficult to access trade credit in the United States and Europe. The price of crude oil fell by more than 50% percent in February 2009 compared to the same month in 2008 (CBN, 2012 and IMF, 2009).

Between the end of 2007 and January 2014 the Nigerian stock exchange index declined by 62 percent and there has also been a significant reduction in market capitalization (CBN, 2012). The significant declines in net worth in stock markets increased the number of non- performing loans and deterioration in the bank financial position. In 2009, several banks in Nigeria suffered significant losses from non-performing loans, forcing the CBN to inject funds into these institutions (IMF, 2009). Between the third quarter of 2008 and the first quarter of 2009, the Nigerian Naira depreciated against the United State dollar by more than 30 percent. External factors as well as domestic policy account for varied impact on Nigeria. Sudden changes in the movement of exchange rate had negative effects for investment output and growth (Osakwe, 2009).

Theoretical Review

The study reviewed three theories, the Austrians, the Marxist, and the Minsky theories with a view to explain practice as it relates to the cement industries. The Austrian school of economic thought, originated in late-19th and early-20th century Vienna in the Austrian empire with the work of Carl Menger, Eugen Böhm von Bawerk, and Friedrich von Wieser. Carl (1871) established the main tenets of the school. Fundamentally, the reasoning of Austrian economists is based on methodological individualism – the concept that social phenomena result from the motivations and actions of individuals. Machlup (1981) summarized the views of Austrian economic thinking as methodological individualism; the idea that to explain economic phenomena, we have to go back to the actions (or inaction) of individuals; groups or "collectives" who act on the basis of whatever knowledge they have or believe to have and whatever expectations they entertain regarding external developments and especially the perceived consequences of their own intended actions. Their actions are influenced by opportunity costs; time structure of production and consumption; consumer sovereignty; and political individualism.

However, the school has had its fair share of criticism on both theory and empiricism. Some argued that Austrian business cycle theory requires bankers and investors to exhibit a kind of irrationality because the Austrian theory posits that investors will be fooled repeatedly (by temporarily low interest rates) into making unprofitable investment decisions (*Gordon, 1988).* Milton (1993) objected to the policy implications of the theory, stating that the theory has done more harm than good in rejecting the intervention of government in economic process for the purpose of restoring equilibrium. This theory holds a potent relation to this study albert in partial way and that it pinpoints the critical role of the collective behaviours of individuals as economic agents in the society whose collective decisions can and do lead to upheavals witnessed as economic crisis. In this scenario, the failure of the subprime mortgage unit of the US economy, not the whole economic system, sparked the crisis in the entire economy. However, this theory throws light on the effects of financial crisis on cement industries in Nigeria, but it gives more insight into advanced capitalist

societies and does not reflect the underdeveloped capitalist society like Nigeria which is the focus for this research.

Marxist theory originated from the mid to late 19th century works of German philosophers Karl Marx and friedrich Engels. Marxist theory used historical development to analyze how financial crisis occurs in capitalistic societies. The theory borrows from the works of John Stuart Mill, (the tendency of profits to fall) which comes about due to imbalance between the producers of goods (workers) and the returns they enjoy therefrom. From the Marxist point of view, the capitalistic society carries a potential economic conflict within it, in that it is incapable of maintaining equilibrium between profits accruable to owners of businesses and the workers who actually generate the profits. Thus, class conflict within the capitalistic society occurs as a result of the differences between the proletariat, the private ownership and the appropriation of profit by a small minority of the population known as the bourgeoisie. This class conflict could lead to social unrest and revolution (Hyse, 1991).

Hyman Minsky's Theory, was propounded by Hyman Philip Minsky, an American economist in 1960. His research showed that one of the features of financial crises in a capitalistic economy in fragile financial system. He added that in the third world countries like Nigeria, Ghana, and other countries industries close down because of their inability to operate under economic recession such as it is happening in Nigeria where most cement industries such as Ibeto, Nigercem and other manufacturing cement industries have closed down. Minsky is sometimes described as a post Keynesian economist because, he supported some government intervention in financial market, opposed some of the financial deregulation policies popular in the 1980s stressed the importance of federal reserve as a lender of last resort and argued against the over- accumulation of the private debt in the financial markets.

Minsky argued that a mechanism that pushes an economy towards a crisis is the accumulation of debt by the non-governmental sector such as private sectors, for instance, the cement industries. From the above analysis Minsky's theory captures most salient features of the undeveloped capitalist third world such as Nigeria and the reason why cement industries are producing at a low quantity due to financial crisis as a result of fragile economy. Minsky's theory is the best fit for this study because it captures the reasons why financial crises affects firms in cement companies such as fragile or weak financial system, economic recession, and private debt in the financial markets that affects effective performance of cement companies in Nigeria.

Review of Empirical Studies

Notta and VIachvei (2014) examined the impact of financial crisis on firm performance: a case of Greek food manufacturing firms. The study aimed to assess the effect of the economic crisis on the performance of Greek diary firms. The period covered extends before and after the global financial crisis of 2007-2008. The study adopted secondary data, a large sample of 128 diary firms. Findings showed that the larger the firms the greater the profitability among diary firms.

Yakubu and Akerede (2012) carried out a study on the impact of financial crisis on the Nigeria Stock Exchange. The study covered the period before and after the financial crisis of 2008-2011. The study used least square multiple linear regression. It concludes that the global financial meltdown has a negative effect on the Nigerian economy.

Bhata and Sultan (2012) conducted a study on leverage risk, financial crises and stock returns, and a comparison among Islamic conventional and socially responsible stocks. The paper sets out to make a critical assessment among various stock models and their response to crisis. A sample of 4000 stocks drawn from 55 countries was used for the study. Three model employed in the study are the sharia complaint, the conventional, and the socially responsible stock models. The authors wanted to know which of their stocks provide the strongest buffer against crisis and thus, pressure the investment of the shareholders. In general, they found out

that an investor needs a selection from among the portfolios of stocks ranging across the three models as each form of stock responds to crisis in varying degrees, but that the socially responsible stock is the most resilient to crisis.

Narjoko and Hill (2007) examined winners and loser during deep economic crisis: using firm-level evidence from Indonesian manufacturing. The study sought to identify the impacts of the crises on Indonesia's deep economic crisis of 1997-1998. The study used the annual survey of large and medium firms conducted by Indonesian's Central Board of Statistic (BPS). The data covers 1993-2000 which is broadly classified into pre crisis, crisis and post crisis periods. Questionnaires were used to collect primary data. The result showed the impact are highly variables rather than homogenous. Foreign ownership and prior export orientation are found to be highly significant determinant of survival and recovery of firms.

McGuinness (2015) examined the impact of the financial crises on the working capital of SMES. The study examined the decision making process in Small and Medium Scale Enterprises (SMEs) under financial constraints (in terms of SME's use of trade credit). The study focused on the period of the global financial meltdown of 2008 and the full period covered in the study range from 2003-2011. Findings from the study supports the view that SMEs are the vital sector and far more resilient in any economy.

3. Methodology

The study used Ex-post facto research design. The target population of the study consists of the nine cement companies in Nigeria. Five of the cement companies are quoted in the Nigerian stock exchange, while the remaining four are not as at 2007. The population of the study therefore, consists of the five (5) quoted companies in the stock exchange. A sample of three cement companies that have operated successfully within the period under consideration was used. The study used secondary data, sourced from the audited annual financial statements of the three cement companies (Larfarge, Dagote and Cement Company of Northern Nigeria) in Nigeria for the period 2007 - 2017.

Data collected was analysed using the Generalized Least Square (GLS) Regression Techniques vides STATA Window 13. This process begins with the conduct of pre-estimation test. For example, the Unit Root test was conducted on the data to ensure its normality and linearity. The Unit Root test was conducted using Levin-Lin-Chu test. This test is more appropriate where the N/T is relatively small. It is also necessary to ensure that the data series is stationary. Regression results conducted in the absence of Unit Root test may be spurious because the estimated parameters would be bias and inconsistent where the data series is not stationary (Hadri, 2000).

Data Analysis: The Unit Root Test

This test was conducted to ensure that panel data used is stationary.

Table 4. Results of Unitroot Test for Variables in Equations 3.2 & 3.3

Variable	t –Statistics	P-Value
Dcap	-7.22*	0.000
Exchr	-1.36*	0.000
Infr	-2.91*	0.001
Roa	-0.61*	0.002
Cof	-0.31*	0.004
Cop	-1.36*	0.003

Note: *The Unitroot test was conducted using Levin-Lin & Chu (LLC) technique under the assumption of determining the trend and intercept. All variables are first differenced (that is, transformed to Order 1). The variables are: Capital inflows (dcap), Exchange rate (exchr), inflation rate (infr), Return on Assets (roa), Cost of finance (cof), and Cost of production (cop)* ****** *= Implies significant at 1%.*

Source: Field Study, 2018.

The results of the Unit Root test shown in table 4, indicates the Levin-Lin & Chu (LLC) statistics with their corresponding P-values. The test was conducted using the Akaike

information criteria at lag 1. Result showed that the probability value in reference to each variable is smaller than the alpha value at 1%. Thus, the null hypothesis that the panel contains a unit root was rejected at 1% level of significance. This means that all the specified variables are I (1) variables (that is, integrated to order 1). Therefore, based on the Unit Root test, our specified variables would yield plausible regression output.

To show the effects of financial crisis on the performance of cement companies in Nigeria, the estimation procedure used by Yakubu and Akerele (2012) was adopted and modified as:

$$\mathbf{Y_t = \alpha_0 + \alpha_1 X_t + \varepsilon_t} \quad \textbf{… (3.1)}$$

Where, Y_t= Performance measure (Dependent variable), X_t = Independent variable, α_0 = The intercept term, α_1 = Coefficients and ε_t = Disturbance term

Model Specification: Model 1

Profitability = f (Capital inflow, Exchange rate, Inflation rate and Error term)

$$\mathbf{ROA_t = \alpha_0 + \alpha_1 CAPINF_t + \alpha_2 FOREX_t + \alpha_3 INFR_t + \varepsilon_t} \quad \textbf{… (3.2)}$$

Where; α_0 = the intercept term, α_1, α_2,α_3 = the regression parameters (that is, coefficient of explanatory and control variable), ROA = Return on asset (Industrial average) for cement industries at period t, CAPINF = Capital Inflow at period t, FOREX = Foreign Exchange Rate at period t, INFR = Inflation Rate at period t, t = time series dimension (ranges from I to T), ε_t= disturbance term

On apriori ground**:** The entire explanatory variables in the model are expected to be inversely related to the dependent variables ***(that is, $\alpha_1 < 0$; $\alpha_2 < 0$; $\alpha_3 < 0$)***.

Decision Rule**:** The decision rule is based on the computed value of t, P value and R^2 tests. t test **:** The t test shows individual significance of the co-efficient. If the computed value is less than the table value, accept the null hypothesis, and reject the alternative; order wise reject the null hypothesis and accept the alternative. P Value (Probability Value): If the calculated P Value is greater than 5%, do not reject the Null Hypothesis, order wise reject the Null Hypothesis and accept the alternative**.** The R^2 (that is, the coefficient of determination), shows the proportion of the total variable in the dependent variable, that is explained by the explanatory variable in a regression model. The closer the R^2 is to 1, the stronger the explanatory power of the estimated regression line.

H_o: Financial crisis has no significant effects on the profitability of cement industry in Nigeria.

Table 5. Results of Random Effects Model on the Relationship Between Financial Crises Indicators and Profitability of Cement companies – Model 1

Variable (roa)	Coef	Std Error	Z Stat.	P -Value
dcap	0.004	0.058	0.06	0.951
logexchr	-1.515*	0.416	-3.64	0.000
infr	0.021	0.015	1.40	0.162
constant	3.837*	0.043	17.99	0.000
R^2 = 0.349				
Rho = 0.800				
Wald X^2 (lag 3) = 13.37*				0.004

Note: *The dependent variable roa (return on assets) * = significant at 1%, the independent variables are dcap = capital inflows, logexchr = exchange rate, infr = inflation rate, rho = correlation coefficient between the cross-sectional units, R^2 = Coefficient of determination.*

Source: Field Study, 2018.

From the results reported in table 5, the coefficient of global financial crises indicators: dcap, logexchr and the moderating variable: infr are 0.004, -1.515 and 0.021 respectively. This showed that dcap and infr have positive relationship with roa. However, logexchr has significant inverse relationship with roa. Rho which measured the correlation

across units (that is, the direction of movement of the variables within cross-sectional units) is positive at 0.800; which showed that all the variables across units are positively correlated.

On individual basis, a 1% change in exchr would lead to a reduction in roa to the tune of 151%. Overall the financial crises indicators jointly contributed 35% (R^2) to variations in roa. Furthermore, since the observed P value of Wald (X^2) lag 3 at 0.000 is less than the critical alpha value at 5%, the null hypothesis is rejected. The researcher concludes that financial crisis has significant effects on the profitability of cement industry in Nigeria.

Model 2

Cost of Production = f (Capital inflow, Exchange rate, Inflation rate and Error term)

$$\mathbf{COP_t = \alpha_0 + \alpha_1 CAPINF_t + \alpha_2 FOREX_t + \alpha_3 INFR_t + \varepsilon_t \quad \ldots (3.4)}$$

Where; COP = Cost of Production (Industrial average) for cement industries at period t

H_o: Financial crisis has no significant effects on the cost of cement production in Nigeria.

Table 6: Results of Random Effects Model on the Relationship Between Financial Crises Indicators and cost of production of Cement companies – Model 1

Variable (cop)	Coef	Std Error	Z Stat.	P -Value
dcap	0.042	0.037	1.12	0.263
logexchr	1.952*	0.267	7.31	0.000
infr	-0.025*	0.009	-2.63	0.009
constant	1.407	0.902	1.56	0.119
R^2 = 0.701				
Rho = 0.987				
Wald X^2 (lag 3) = 56.92*				0.000

Note: *The dependent variable cop (cost of production) * = significant at 1%, the independent variables are dcap = capital inflows, logexchr = exchange rate, infr = inflation rate, rho = correlation coefficient between the cross-sectional units, R^2 = Coefficient of determination.*

Source: Field Study, 2018.

From the results reported in table 6, the coefficient of global financial crises indicators: dcap, logexchr and the moderating variable: infr are 0.042, 1.952 and -0.025 respectively. This showed that dcap and logexchr have positive relationship with cop. However, infr has significant inverse relationship with cost of production, while, exchange rate has significant positive relationship with it. Rho which measured the correlation across units is positive at 0.987; which showed that all the variables across units are positively correlated.

On individual basis, a 1% change in exchr would lead to an increase in cost of production to the tune of 195%, while a 1% change in infr would lead to a reduction in cost of production to the tune of 2.5%,. Overall the financial crises indicators jointly contributed 70.1% (R^2) to variations in cop thus, indicates a strong relationship. Furthermore, since the observed P value of Wald (X^2) lag 3 at 0.000 is less than the critical alpha value at 5%, the null hypothesis is rejected. The researcher concludes that financial crisis has significant effects on the cost of production of cement industry in Nigeria.

Discussion of Findings

Based on the result in table 5 for hypothesis one; the researcher rejected the null hypothesis and concludes that financial crisis has significant effects on the profitability of cement industry in Nigeria. Findings indicate that financial crises have significant negative effects on the profitability of cement companies in Nigeria. This result supports Yakubu and Akerede (2012) that financial crises have negative effects on the economy. This is because exchange rate becomes unfavourable due to capital flight. The implication of this finding is that the unfavourable exchange rate reduces firm profitability; and by extension has negative effects on the Nigerian economy.

Based on the result in table 6 for hypothesis two; the researcher rejected the null hypothesis and conclude that financial crises have significant effects on the cost of

production of cement in Nigeria. Findings from the study showed that inflation has significant negative effects on the cost of production during the period under review.

4. Conclusion

The study has shown that the consequence of the financial crisis of 2007/2008 is the high cost of cement which has brought untold hardship on Nigerians. The costs of government constructions contracts doubled; builders found it difficult to build or acquire houses; the cost of house rents doubled; and the obvious housing deficit could not be remedied by mortgage institutions. The financial crisis also caused insufficiency in funding operations in the industry, especially on large scale. Most of the cement companies in Nigeria experienced low production due to high cost of raw materials and lack of efficient maintenance of machines which are capital intensive.

The effects of financial crisis also brought about technological inadequacies and high overhead cost which led to the closure of some cement companies such as Nigercem Nkalagu in present day Ebonyi State, Eastern Bulkcem and Ibeto Group. Although, Nigerian government has tried to mitigate the effects of financial crisis on these cement companies through tax holidays, banning importation of bagged cement, yet the effects of financial crisis still persists.

The study concludes that the 2007/2008 financial crises have significant negative effects on the profitability of cement companies, as well as the cost of production of cement in Nigeria. Findings further showed that inflation has significant negative effects on the cost of production during the period under review.

5. Recommendations

The study recommended that the cement industry in Nigeria should look inwards in terms of sources of raw materials and local technology for their production. Research and development should be intensified to enable the building and/or assemblage of machines for the production of the product. This will reduce overhead cost of production and consequently improve profitability.

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LIQUIDITY MANAGEMENT AND PROFITABILITY OF NON-LIFE BUSINESS IN THE NIGERIAN INSURANCE INDUSTRY BETWEEN 2005 -2016

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Abstract

Insurance stakeholders place more emphasis on profitability with less attention to their liquidity. However, the inverse cycle nature of insurance operations has made insurance companies vulnerable to liquidity problems due to their inability to honour short term financial obligations. This however provides a need to investigate the effect of liquidity management on the profitability of non-life insurance companies in Nigeria. The study employed longitudinal descriptive research design. A panel data of twelve (12) year period from (2005-2016) was obtained from the annual reports of all the forty one (41) non-life insurance companies operating in Nigeria as at January, 2017. The study used cash assets, investment income and net premium earned as proxies for of liquidity management while return on assets was used to denote profitability. The study adopted Pooled Mean Group/Autoregressive Distributed Lag model to determine the short run and long run effect of liquidity management on profitability using logarithmic transformation of model. Wald test was employed to test the joint effect of liquidity management variables on profitability variable. The findings of the study established statistical influence of the profitability and liquidity management. The study recommended that non-life insurance companies in Nigeria should increase their risk appetite in order to bring in more premium incomes and engage skilled professionals in underwriting in order to attain optimal level of liquidity and maximize profit.

Keywords: Liquidity management, Non-life business, Profitability

1. INTRODUCTION

It is often observed that whenever a financial analysis of companies is to be carried out, more attention is given to the profitability of the business rather than on its liquidity (Panigrahi, 2013). The reason for this may not be unconnected to the fact that the most important financial objective of any business is to earn profit. However, another equally important indicator is the ability of an organisation to honour its short term financial obligations through the management of its liquidity. Without cash, Gill, Biger and Mathur (2010) assert that an organisation cannot pay its bills nor carry out growth plans, and by extension may find it difficult to obtain credit facility or take advantage of business opportunities. Liquidity therefore is having enough money in the form of cash, or near-cash assets, to meet an organisation's financial obligations (Nnana, 2002). A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business (Bhunia, 2010).

However, dilemma in liquidity management is achieving desired trade-off between liquidity and profitability (Rahemanet & Nasr, 2007). Hence, liquidity requirement of an organisation according to Olagunju et al (2011) depends on the peculiar nature of the business ventured

into because there is no specific rule on determining the optimal level of liquidity that a firm can maintain in order to ensure positive impact on its profitability. Liquidity management is to determine the needs for funds to meet financial obligation and ensure the availability of cash or collateral to fulfil those needs as at when due. This is done by coordinating the various sources of funds available to the institution under normal and stressed conditions (Olagunju, Adeyanju & Olabode, 2011).

Liquidity management is more relevant in insurance business due to its inverse nature of operations (De Cateris, 2005). That is, insurance companies need to form an expectation about future claims before risk can be accepted (Lelyveld, Liedorp & Kampman, 2009). This reason for this according to Obalola and Abass (2016) is hinged on the fact that if too much risks are accepted, premium received may be insufficient to cover the required pay-out which may lead to liquidity crisis. Thus, liquidity from the context of insurance companies is the probability of an insurer to pay liabilities which include operating expenses and payments for claims or benefits under insurance policies. For an insurer, cash flow (mainly premium and investment income) and liquidation of assets are the main sources of liquidity (Rebao & Kie, 2004).

Regrettably insurance companies give more attention to profitability with less concentration on the short-term financial obligations through the management of its liquidity. Therefore, there is always a trade-off of liquidity for profitability by insurance companies in Nigeria. This trade-off has led to some insurance companies to run into liquidity crisis through claims payment, especially non-life insurance businesses which run on a yearly basis. Most importantly, the inverse nature of insurance operations with more emphasis on short-term expenses like claims pay-outs especially non-life business has made management of liquidity more critical though overlooked by insurance companies in Nigeria. For example, Nigerian insurance market review in 2009 shows a correlation of liquidity management and performance of insurance companies' profitability. The low profit of the whole industry for the year under review was traced to high liquidity ratio experienced. In lieu of this result, National Insurance Commission (NAICOM) makes it a point of duty to examine and closely monitor the liquidity in Nigerian insurance industry.

In lieu of the above, the study intends to investigate the effects of liquidity management (using cash asset, investment income and net premium earned as proxies) on profitability (using return on asset as proxy) of non-life Insurance companies in the Nigerian insurance market.

2. LITERATURE REVIEW

According to Anyanwu (1993) liquidity simply means the ability to convert an asset to cash with minimum delay and minimum loss/cost. Liquidity is a financial term that shows the amount of capital that is available for investment. Nwaezeaku (2008) defines liquidity as the degree of convertibility to cash or the ease with which any asset can be converted to cash (sold at a fair market price). Liquidity management therefore involves the strategic supply or withdrawal from the market or circulation the amount of liquidity consistent with a desired level of short-term reserve money without distorting the profit making ability and operations of the insurance companies (Owolabi & Obida, 2012). According to Nwankwo (1991), liquidity management relies on the daily assessment of the liquidity conditions of an organisation, so as to determine its liquidity needs thus, the volume of liquidity to allot or withdraw from the market. Liquidity management entails cast flow management, credit policy and rate of investment income (Torre, 1997; Pandy, 2005; Lazaridis & Tryfonidis, 2006; Hutchison, Farris & Anders, 2007; Amalendu & Sri, 2011; Vijayakumar, 2011).

The liquidity of an organisation is measured with use of some financial ratios referred to as liquidity ratios. This group of ratios measures the ability of the firms to meet its current obligations (liabilities).

Liquid assets play a very crucial role because insurance firms operate largely with the funds from investments, and savings in form of demand and time deposits. These liquid assets are the essential balance sheet items which have the capacity to maintain the confidence of policyholders which is the most valuable intangible asset of the insurance business (Spindt, 1980). Adequate liquidity in insurance operations according to Spindt (1980) serves as vehicle for profitable operations especially to sustain confidence of policyholders in meeting short-run obligations. Measures of liquidity from insurance operations point of view according to Eljelly (2004), Barad (2010), Panigrahi (2012) and Brealey (2012) include investment income, current asset and net premium earned.

Analysis of liquidity needs the preparation of cash budgets and cash flow statement; but liquidity ratio, by establishing a relationship between cash and other current assets to current obligations, provided a quick measure of liquidity (Pandy, 2005).

Profit which is also referred to as earnings, income and margin can be defined as an excess of revenues over associated expenses for an activity over a period of time (Shodhganga, n.d). Profit may not only mean a reward to owner(s) of a business, it may also be related with the interest of other stakeholders of the society. Profitability on the other hand is the ability of an organisation to consistently make profit or surplus of revenues over expenses (Carton, 2004). Tulsian (2014) defines profitability as the ability of a given investment to earn a return from its use. It further shows how efficiently the management can make profit by using all the resources available in the market (Karaca & Cigdem, 2012).

In lieu of this, Hofstrand (2006) further stresses the usefulness of profitability as the primary goal of all business ventures, without profitability the business will not survive in the long run. Though, the terms profits and profitability are used interchangeably, there exits fundamental differences between the two. While profit is a nuance, profitability is a relative concept (Tulsian, 2014).

In measuring profitability of an organisation, profitability ratios are mostly adopted.

Profitability ratios are indicators for the firm's overall efficiency. They are usually used as a measure for earnings generated by an organisation during a period of time with respect to its sales, assets, capital employed, net worth and earnings per share (Hofstrand, 2006; Karaca & Cigdem, 2012; Khidmat & Rehman, 2014).

Various scholars have used various types of financial ratios to measure profitability of an organisation. However, commonly used ratios include: liquidity ratios, Return on Equity (ROE), Return on Assets (ROA), gross profit margin, net profit margin, earnings before tax-to-equity ratio, net profit margin ratios, earnings before tax–to-equity ratio, Return on Investment (ROI), Return on Sales (ROS), Return on Invested Capital (ROIC), operating expenses to-net sales ratio, assets utilisation or turnover ratios, inventory turnover rate, net working capital turnover rate, asset turnover rate, equity turnover rate, fixed asset turnover rate, long-term assets turnover rate, growth ratios, assets structure ratios, current assets-to-total assets ratio, inventory-to-current assets ratio, cash and cash equivalents-to-current assets ratio and long-term assets-to-total assets ratio (Carton, 2004; Cinca, et al., 2005; Ho & Wu, 2006; Karaca & Cigdem, 2012; &Brealey, 2012; Delen, et al., 2013 &Tulsian, 2014).

For the purpose of this study, profitability ratios of non-life insurance companies shall be narrowed down to Return on Assets (ROA) (Cummins, Feng, & Weiss, 2012; Malik, 2011; Kozak, 2011 & Iqbal, Rehman, & Shahzad, 2014).

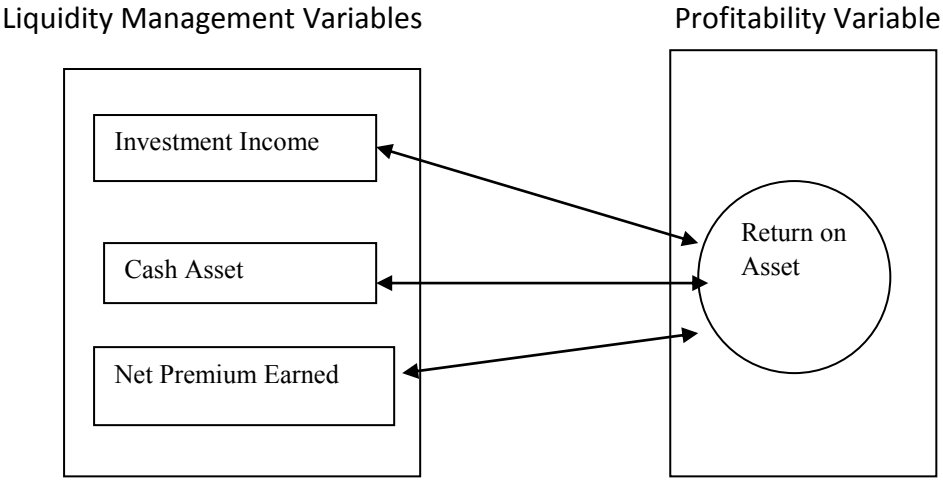

Figure 1: Conceptual Framework of Liquidity Management and Profitability
Source: Authors (2019)

Theoretical Review

Several theories have been proposed in the economics and financial literature to explain the interaction between liquidity management and profitability. Some of the theories include; trade-off theory liquidity, pecking order theory, liquidity Clark theory of profitability, dynamic theory of profit and Schumpeter theory of profitability. Assumptions made by these theories vary considerably, hence, there is a lack of consistency in explaining the nature of profitability of insurance business with respect to liquidity management. Specifically, this study is based on Schumpeter theory of profitability.

Schumpeter theory of profitability develops 'circular flow model that describes a profit-less economy where perfect competition extinguishes surpluses of monopoly and friction. The analyses of the 'circular flow' economy however differ in detail from the 'static state' model as described by Clark. The departures between an ideally competitive environment and actual economies yield the causes of profit. Schumpeter's circular flow theory identifies the single notion of innovation as paramount, hence, changes based upon innovation are the cause of profit. Schumpeter goes on to describe five areas in which innovation will lead to profit generation to include; innovations in commodities, innovations in production techniques, finding new and fertile markets, locating new resources and changes in industrial organisation. Schumpeter does not see the entrepreneur's reward as a surplus value but rather as a functional reward linked to his innovative ability (Siddiqi, 1971).

Schumpeter theory of profitability is adapted for insurance operations because the depth of insurance business' profitability is quite dependent on innovations such new products development, claims payment process, investments strategies as well as intensive marketing.

3. DATA AND METHODS

A longitudinal descriptive research design for aggregate industry data comprising of all the forty one (41) non-life insurance companies operating in Nigeria January 1st, 2017 was employed. A census of all the forty one companies operating in Nigeria served as the population to the study. Secondary data (return on asset, cash asset, investment income and net premium earned were extracted from the annual reports of all the forty one (41) insurance companies operating in Nigeria as at January 01, 2017 for a 12 year period of 2005 to 2016. This study adopted descriptive and analytical tools. The analytical tools involved econometric tools which included pre-estimation tests such as panel unit root test (using *Levin, Lin & Chu t* as well as *Im, Pesaran& Shin W-stat*criteria) and panel co-integration test (using *Pedroni residual approach*). Pooled Mean Group/Autoregressive Distributed Lag (PMG/ARDL) model was employed and estimated to determine the short run and long run effect of liquidity management on profitability. Wald test was employed to test the overall test of significance.

3.1 Model Specification

$$profitability = f(liquiditymanagement) \dots\dots\dots (1)$$
$$ROA_{it} = f(CA_{it}, NPE_{it}, INVI_{it}) \dots\dots\dots\dots (2)$$

The ARDL model is specified as follows in log-linear form:

$$\log_e(ROA_{it}) = \beta_0 + \sum_{j=1}^{k} \beta_{1j} \log_e(ROA_{it-j}) + \sum_{j=0}^{k} \beta_{2j} \log_e(CA_{it-j}) + \sum_{j=0}^{k} \beta_{3j} \log_e(NPE_{it-j}) + \sum_{j=0}^{k} \beta_{4j} \log_e(INVI_{it-j}) + \mu_{it} \dots\dots (3)$$

The long run form model is expressed as follows:

$$\log_e(ROA_{it}) = \alpha_0 + \alpha_1 \log_e(CA_{it}) + \alpha_2 \log_e(NPE_{it}) + \alpha_3 \log_e(INVI_{it}) + \varepsilon_{it} \dots\dots (4)$$

Definition of variables

Variables		Definitions
Dependent variables:		
ROA	-	Return on assets (a measure of profitability)
Independent variables:		
CA	-	Cash assets
NPE	-	Net premium earned
INVI	-	Investment income
u	-	Error Term (model 2)
ε	-	Error term (model 3)

j = 0, 1, 3… k (lag periods) where k is the maximum lag estimated

t = 2005 … 2016 (annual time periods)

i = 1, 2, 3 … 41 (individual insurance company)

Short-run coefficients:

$\boldsymbol{\beta_0}$= intercept coefficient

$\boldsymbol{\beta_{1j}}$= partial elasticity coefficient of *ROA* with respect to ***lag*** of *ROA*

$\boldsymbol{\beta_{2j}}$= partial elasticity coefficient of *ROA* with respect to *CA*

$\boldsymbol{\beta_{3j}}$= partial elasticity coefficient of *ROA* with respect to *NPE*

$\boldsymbol{\beta_{4j}}$= partial elasticity coefficient of *ROA* with respect to *INVI*

The long run coefficients:

$\boldsymbol{\alpha_0}$= intercept coefficient

$\boldsymbol{\alpha_1}$= partial elasticity coefficient of *ROA* with respect to *CA*

$\boldsymbol{\alpha_2}$= partial elasticity coefficient of *ROA* with respect to *NPE*

$\boldsymbol{\alpha_3}$= partial elasticity coefficient of *ROA* with respect to *INVI*

$\beta_{ij} > 0, \alpha_1 > 0, \alpha_2 > 0, \alpha_3 >, \alpha_4 > 0$

4. RESULT AND DISCUSSION OF FINDINGS

Table 1 Descriptive Statistics

	ROA	***CA***	***NPE***	***INVI***
Mean	0.0149	1337547.	2773060.	213954.1
Median	0.0332	545980.0	1813009.	230007.0
Maximum	1.6497	19916045	40320170	9682116.
Minimum	-2.0222	1825.000	951.0000	-11362126
Std. Dev.	0.1979	2088159.	3989117.	1457351.
Skewness	-4.0770	4.0734	5.2701	-2.4824
Kurtosis	60.9519	29.3329	39.4835	34.7949
Jarque-Bera	68640.96	15037.55	29323.61	21013.35
Probability	0.000000	0.000000	0.000000	0.000000

Sum	7.156010	6.35E+08	1.35E+09	1.04E+08
Sum Sq. Dev.	18.80207	2.07E+15	7.75E+15	1.03E+15
Observations	481	475	488	487

***Source**: Author's computation using E-views*

Table 2 Panel Unit Root Tests

Variable	Statistic computed		P-values	Order of integration
ROA	Levin, Lin & Chu t	-3.4699	0.0001	*I(0)*
	Im, Pesaran& Shin W-stat	-2.4477	0.0072	*I(0)*
CA	Levin, Lin & Chu t	-7.5219	0.0000	*I(0)*
	Im, Pesaran& Shin W-stat	-2.7747	0.0028	*I(0)*
NPE	Levin, Lin & Chu t	-22.3939	0.0000	*I(1)*
	Im, Pesaran& Shin W-stat	-15.0842	0.0000	*I(1)*
INVI	Levin, Lin & Chu t	-8.0880	0.0000	*I(0)*
	Im, Pesaran& Shin W-stat	-4.4806	0.0000	*I(0)*

***Source:** Author's computation using e-views*

Table 3 Co-integration Test

Pedroni Residual Cointegration Test
Series: ROA CA NPE INVI
Sample: 2005 2016
Null Hypothesis: No cointegration

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

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-0.8574	0.8044	-1.2632	0.8967
Panel rho-Statistic	2.8691	0.9979	2.6068	0.9954
Panel PP-Statistic	3.7710	0.0001	4.7075	0.0000
Panel ADF-Statistic	-3.1687	0.0008	-2.0641	0.0195

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

	Statistic	Prob.
Group rho-Statistic	5.327553	1.0000
Group PP-Statistic	-7.0368	0.0000
Group ADF-Statistic	-4.1621	0.0000

***Source**: Author's computation using E-views*

Table 4 Estimation of ARDL model for short run and long run forms
Table 4.1 Result of estimated ARDL short run coefficients

Dependent Variable: D(ROA)

Method: ARDL
Sample: 2007 2016
Included observations: 410
Maximum dependent lags: 2 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Selected Model: ARDL(2, 1, 1, 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Short Run Equation				
CointEq(-1)	-0.0136	0.0041	-3.3326	0.0010
D(LOG(ROA(-1)))	-0.0098	0.0337	-0.2911	0.7712
D(LOG(CA))	0.030154	0.026153	1.152987	0.2500
D(NPE)	-0.1023	0.0442	-2.3163	0.0214
D(LOG(INVI))	0.8807	0.0380	23.2099	0.0000
C	2.327845	0.686130	-3.392717	0.0008

***Source**: Author's computation using E-views*

Table 4.2 Result of estimated ARDL long run coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Long Run Equation				
LOG(CA)	-2.378842	1.041282	-2.284533	0.0232
LOG(NPE)	13.56272	5.713815	2.373672	0.0184
LOG(INVI)	0.012399	0.004347	2.852672	0.0047

***Source**: Author's computation using E-views*

Overall Test of Significance of the Estimated ARDL Model (Wald Test)

This test is carried out to examine if all the explanatory variables (*CA, NPE* and *INVI*) are jointly significant to influence the dependent variable (***ROA***) using Wald test.

$$H_0: \alpha_1 = \alpha_2 = \alpha_3 = 0$$

$$H_1: Not\ all\ \alpha's\ are\ simultaneously\ equal\ to\ zero$$

The table 1 above presents the descriptive statistics of each of the series; *ROA*, *CA*, *NPE* and *INVI*. *ROA* is expression in absolute or fractional form while *CA, NPE* and *INVI* are expressed in thousands of Naira. The average of *ROA* is about 0.0149 which is equivalent to 1.49%. This implies that the average performance of the industry using return on assets is about 1.49%. The averages of *CA, NPE* and *INVI* for the industry are 1337547 (₦'000), 2773060 (₦'000) and 213954.1 (₦'000) respectively. In summary, the Jarque-Bera statistics show that none of the series *ROA*, *CA*, *NPE* and *INVI* follows a normal distribution since the p-value of each of the series is less than 0.05.

Table 2 shows that all the series *ROA, CA* and *INVI* are integrated at order zero *i.e. I(0)* while *NPE* is integrated at order one *i.e. I(1)*. Thus, there is a mixed order of integration and by implication; this justifies the adoption of PMG/ARDL.

However, table 3 shows that majority of the statistics are significant since the p-values are less than 0.005. This suggests that there is co-integration or long run relationship among the series *ROA*, *CA*, *NPE* and *INVI*.

Table 4.1 shows that the coefficient (-0.0136) of the co-integrating equation (error correction term or speed of adjustment) is negative and significant (since the p-value of 0.0010 is less than 5%). This suggests that *ROA* (return on assets) adjusts to cash asset (*CA*), net premium

earned (*NPE*) and investment income (*INVI*) with a lag in the long run. Thus, about 1.36% of the disequilibrium in the previous periods has fallen back to equilibrium in the current period. This implies that *CA, NPE* and *INVI* have long run effects on *ROA*.

While table 4.2 depicts the estimated long-run equation which shows that net premium earned (*NPE*) and investment income (*INVI*) have positively significant effects on return on assets (*ROA*). On the contrary, cash asset (*CA*) has negatively significant effects on return on assets (*ROA*). Therefore, net premium earned (*NPE*) and investment income (*INVI*) have positively significant long run effects on profitability (using return on assets as a proxy) while cash asset (*CA*) has negatively significant long run effects on profitability.

The results from the analysis of the data from annual reports as presented above is from the sampled 41 non-life insurance companies to establish the relationship between the liquidity management in the selected companies and their profitability. Longitudinal descriptive analysis using the regression model was used to determine the extent of liquidity management in the selected companies in terms of their cash assets and investment income which can be readily converted to cash. The descriptive statistic was also used to determine the level of the return on asset of the insurance companies. Here return on asset is dependent variable and liquidity is an independent variable. After observing the selected companies collectively, it can be seen that there is significant relationship between liquidity and profitability as the parameters shows positive effects on the profitability of the companies.

5. Conclusion

From the analysis, it can be concluded that there is a significant relationship between liquidity and profitability of non-life business in the Nigerian insurance industry between 2005 and 20016. Therefore, non-life insurance companies in Nigeria must optimize their liquidity positioning in the quest to resolve the liquidity/profitability trade-off in non-life business. More importantly, non-life insurance companies in Nigeria need to draw more attention to their cash assets as well as premium income which will have effects on its annual underwriting income. Focus should be drawn towards increasing investments outside its scope of business.

Recommendations

There is need for non-life insurance companies in Nigeria to engage skilled and professionals to manage their investment portfolio. Efforts must be made by non-life insurance companies in Nigeria in order to increases their risk appetite. This may lead to increase premium incomes, as well as pump more cash into its reserve. Non-life insurance companies in Nigeria also need to give more attention to investment analysis. This might lead to sieving out unprofitable investments and increases the chances of returns to boost its capital.

Suggestions for further studies

From the results and findings from this research, it is suggested that more innovative research may be carried out in this area. Efforts may be made by extending indicators of independent and dependent variables to include working capital ratio, return on assets, underwriting ratio and premium reserve ratio. Further research should increase the formulas in liquidity to include, quick ratio, cash conversion cycle ratio and current ratio while in profitability formulas could be increased to net profit margin, and return on equity. Researchers could make use of data more than 10 years annual reports of non-life insurance companies.

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MICRO FINANCING AND ECONOMIC GROWTH IN NIGERIA

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ABSTRACT

This study explored micro-financing as platform for economic growth in Nigeria between 1992 and 2017. Specific objectives of the study are: to identify whether amount borrowed increased asset acquisition and savings of small scale business owners; and to examine the effect of micro-credit on poverty reduction in Nigeria. The study was anchored on some basic prepositions emanating from the financial growth, pecking order and contract theories. The study used secondary data obtained from the Central Bank of Nigeria Statistical Bulletin for a period of twenty five (25) years. Data collected was analyzed using Modified Least Square regression techniques. The study established that microfinance institutions have positive relationship with Nigerian economy. This is represented by expanded GDP. The study recommended that the different microfinance banks in the country should endeavor to grant more credit facilities to their customers at reduced cost so as to encourage the growth of entrepreneurs through their financial operation within the community.

Keywords: *Entrepreneurs, Funds Growth, Economy, Microfinance*

1. INTRODUCTION

The issue of sustainable development in the third world countries like Nigeria has been a growing concern to both the government and the private sector. The huge amount of money the government has been investing on this platform over the years has not yielded any meaningful result. Poverty is still a characteristic of Nigerian households or individuals. It has been realized in the recent years that there are limits to which government can singly promote development. Most traditional functions being carried out by the government: in most countries ranging from the provision of economic development to employment generation are becoming increasingly difficult to accomplish. Nigeria as a nation has her own peculiar developmental challenges because of maladministration, corruption, infrastructural decay, insecurity of lives and properties, unstable macro-economic regime and unpredictable fiscal policies by successive administrations (Chigbue, 2005). Thus, both the public and the private sectors of the economy and every segment of the society need to be involved in the industrial development process of the country. It is on this basis that government began to engage in privatization policy with a view of allowing the private sector to participate in the economic development of the nation.

Consequently, successive administrations in different countries have been trying to find pathways to involve the private sector in the developmental process of the economy. One of the responses to the development in the developing countries is the encouragement of entrepreneurial development scheme. Nigeria had even taken more robust step by including entrepreneurial studies in the academic curriculum of her educational system. It is generally believed among policy makers that such decision will inculcate entrepreneurial spirit in the mind of people so as to prepare them for wealth creation through small scale enterprises. Small-scale enterprise is very crucial to the development of a country's economy, especially in countries like Nigeria.

Entrepreneurship is a must for national development, eradication of poverty, and employment generation. It is the bedrock of any nation's industrialization. A number of studies have been carried out on the effects of microfinance on entrepreneurial development. Parker (2006) noted that the establishment of micro credit programmes encourages entrepreneurs to have close access to financial services but unfortunately some of these microcredit programmes have not been made with respect to the general welfare of low-income earners or poor households. In fact, academic interest that shows the effect of entrepreneurial development evidenced by the fact that some academic journals have devoted special issues to research establishing this linkage.

The evolution of community banks as intermediaries of microfinance program in Nigeria in 1990 was supposed to reduce the stress which low-income individuals go through before they can have access to capital (CBN, 2005). It has been noted that robust economic growth cannot be achieved without putting in place well focused programs to reduce poverty through empowering the people .by increasing their access to factors of production, especially capital (Aderibigbe, 2001).

However, the question of whether microfinance improves or worsens entreprenurial development is still worthy of further research such as the one being undertaken in this study. In addition, the effect of microfinance on entrepreneurial development has not received adequate research attention in Nigeria. Research also showed most of the studies on effect of microfinance on entrepreneurial development that has been reported was carried out on industrialized countries. This means that there is a major gap in the relevant literature on developing Countries including Nigeria. This study attempts to fill this research gap. The study examined the situation in Nigeria with a view to show empirical evidence on the effect of microfinance on entrepreneurial development. Thus, the broad objective of this paper is to examine micro financing as platform for economic growth in Nigeria. The specific objectives are: to identify whether amount borrowed increased asset acquisition and savings of small scale business owners; and to examine the effect of micro-credit on poverty reduction in Nigeria. The study hypothesized that: Micro-financing does not have any significant impact on economic growth and development in Nigeria.

To achieve these objectives, the study is divided into five but coordinated sections. Section one is the introduction. This is followed closely by the literature review which elucidates the opinions and stance of eminent scholars on micro financing. The third section captures the research methodology, indicating the step by step approach by which the research is built on. The fourth section is on the analysis of data relating to microfinance, poverty reduction and economic growth in Nigeria. The remaining section of the paper draws some economic implications that emerge from the discussions.

2. LITERATURE REVIEW

Microfinance refers to the entire flexible structures and processes by which financial services are delivered to micro-entrepreneurs as well as the poor and low-income population on a sustainable basis. Microfinance is the provision of financial services to low-income, poor and very poor self-employed people (Otero, 2000). Nayab (2011) as cited in Ogunleye (2009) defined microfinance as small-scale financial services that involve mainly savings and credit services to the poor.

Brau and Woller (2004) categorized microfinance bank credit into three types namely, short term credit to finance the current cropping season's operation, seeds, fertilizers and farm family expenses until the crop is sold, medium-terms loans (longer than one crop year and less than three years) which is needed for the purchase of breeding stock and equipment, and long-term credit needed to purchase machines and embark on major improvement of farmland and buildings.

Over twenty years ago, microfinance simply meant the provision of very small loans (microcredit) to the poor, to help them engage in new productive business activities and/or to grow/expand existing ones. However, overtime, microfinance has come to include a broader range of services. These include mainly credit, savings opportunities, insurance and money transfers, as practitioners came to realize that the poor, who lacked access to traditional formal financial institutions, needed and required a variety of financial products to achieve meaningful improvement in their business activities. Microfinance refers to loans, savings opportunities, insurance, money transfers and other financial products targeted at the poor.

Ogunleye (2009) is of the opinion that microfinance is about providing financial services to the poor, who are traditionally not served by the conventional financial institutions. He stated that the three features which distinguish microfinance from other formal financial products are:

II. The smallness of loans advanced and or savings collected,
III. The absence of asset-based collateral, and
IV. Simplicity of operations.

Integrated Microfinance Bank (IMFB, 2007) cited in Yaquib (2012) was of the opinion that microfinance is the supply of loans, savings and other basic financial services to the poor. Everyone needs a diverse range of financial instruments to run their business, build asset, stabilize consumption and shield themselves against risks. Financial services needed by the poor include working capital loans, consumer credit, savings pension insurance and money transfer services. Jamil (2008) opined that microfinance is the entire flexible structures and processes by which financial services are delivered to micro entrepreneurs as well as the poor and low-income population on a sustainable basis. It recognized poor and micro entrepreneur who are excluded or denied accesses to financial services on account of their inability to provide tangible assets as collateral for credits facilities.

Central Bank of Nigeria guidelines (2005) defined microfinance as providing the economically active poor and low income households with financial services such credit to help them engage in income generating activities to expand or grow their small businesses, savings, micro leasing, micro insurance and payment transfer. In Nigeria, Lemo (2006) observed that microfinance entails traditional informal practices such as local money lending, rotating credit and savings practices, credit from friends and relatives, government owned institutional arrangements, poverty reduction programmes to mention but a few. Olaitan (2006) observed that microfinance involves the provision of credit, savings, repositories, and financial services to low income earners or poor households to create or expand their economy and to improve their standard of living.

According to Jegede (2011), microfinance institutions are established to provide microcredit loans to low-income earners and economically active poor across Nigeria. This was occasioned by the realization by government that a large proportion low-income groups and indeed active poor are not taken, care of by the traditional, commercial banking system that characterized the country. This is because these categories of persons cannot afford collateral required by regular commercial banks before loans are granted or accessed.

The similarity among all the definitions above showed that microfinance is about the provision of financial services to the poor, low-income earners and people operating small business in order for them to improve their standard of living. It is the provision of financial services to the economically active poor who are hitherto underserved by the mainstream financial economic and social thrills that may never be matched by any political or specialized gigantic projects.

Economic development essentially means a process of upward change whereby the real per capita income of a country increases over a period of time. Entrepreneurship has an important role to play in the development of a country. It is one of the most important inputs in economic development. The number and competence of entrepreneurs affect the economic growth of the country.

The economic history of the presently advanced countries like USA, Russia and Japan supports the fact that economic development is the outcome for which entrepreneurship is an inevitable cause. The crucial and significant role played by the entrepreneurs in the economic development of advanced countries has made the people of developing and under developed countries conscious of the importance of entrepreneurship for economic development. It is now a widely accepted fact that active and enthusiastic entrepreneurs can only explore the potentials of the countries availability of resources such as labour, capital and technology.

The role of entrepreneurs is not identical in the various economies. Depending on the material resources, industry climate and responsiveness of the political system, it varies from economy to economy. The contribution of entrepreneurs may be more in favourable opportunity conditions than in economies with relatively less favourable opportunity conditions.

Entrepreneurship and economic development are intimately related. The entrepreneurial process is a major factor in economic development and the entrepreneur is the key to economic growth. Whatever be the form of economic and political set-up of the country, entrepreneurship is indispensable for economic development. Entrepreneurship is an approach to management that can be applied in start-up situations as well as within more established businesses. The growing interest, in the area of entrepreneurship has developed alongside interest in the changing role of small businesses. Small entrepreneurship has a fabulous potential in a developing country like Nigeria.

The entrepreneur who is a business leader looks for ideas and puts them into effect in fostering economic growth and development. Entrepreneurship is one of the most important inputs in the economic development of a country. The entrepreneur acts as a trigger head to give spark to economic activities by his entrepreneurial decisions. He plays a pivotal role not only in the development of industrial sector of a country but also in the development of farm and service sector.

Entrepreneurs need funds to bring together various factors of production such as land, labour and capital for production to take place. The take-off and efficient performance of any enterprises, be it small or large will require the provision of funds for the creation of new investment. Therefore, various forms of assistance have been designed in many microfinance institutions to promote the development of entrepreneurship. In the past, the poor and micro enterprises have been discriminated against by formal financial institution because of the high risk associated with financing them. As a result, access to economic source of finance for the low-income earners to establish their own business has been a major issue in the literature of economic and entrepreneurship development.

Poverty reduction is not an impossible task in a country. Empirical evidence has shown in Indonesia that significant poverty reduction is possible and had occurred in developing countries. For example, studies have revealed, that the absolute number of people living in poverty has dropped in all developing countries that have experienced sustained rapid economic growth over the past few decades (Aderibigbe, 2001).

The approaches adopted by these countries are collectively known as microfinance. It is designed to raise the level of investment infrastructure and people in order to enhance income generation capacities. According to Jegede (2014), setting up microfinance institutions was a strong commitment to alleviate poverty, raise the standard of living of the people and help to generate job opportunity. Fie stressed that when people are empowered and loans are made easily available to especially poor people to start small- scale business, our society would be better off.

Development economists posited that, for an economy to develop two conditions is necessary and sufficient. They are: banking industry and entrepreneurship. They are of the view that, high banking structure development, defined by a high banking interrelation ration is associated with high real development. This is because; development in the banking sector is a prerequisite to small and medium enterprises (SMEs) development and economic development. Micro financing is not just a business meant for the "financially or professionally ill- equipped" but is a true developmental project that must be constructively and effectively supported by every rich and comfortable Nigerian as well as all strata of government in the country service provider. Effective and efficient micro banking in any nation and society can generate positive impact and make developing nations such Nigeria positively keyed into the Millennium Development Goal (MDG

Ogunrinola and Alege (2008), in their own study on sustainable micro-entrepreneurship stated that about 90 per cent of the people in developing countries lack access to financial services from institutions, either for credit or savings, which further fuels the vicious cycle of poverty; that if the people of less developed countries (LDCs) have a limited capacity to invest in capital, productivity will be restricted, incomes are inhibited, domestic savings remain low, and again, any increase in productivity is prevented. He argued that the extent to which microfinance, entrepreneurship and sustainability are interrelated is dependent on the extent to which it addresses the economic development process and concluded that the economic benefits of sustainable micro-entrepreneurship in LDCs are compelling, and its potential effects on the development process are equally promising.

In terms of development and social impact, the microfinance industry allows significant improvements in quality of life for the micro-entrepreneurs of LDCs around the world and makes them to stabilize the cash flow of their economic activity, bringing security to the enterprise. This allows them to better manage spending, which often generates savings: and provides better standards of living to their family, and dependents in terms of housing, nutrition, health and education. Finally, an access to banking and increased security promotes a sense of entrepreneurship, and thus their self-esteem and reputation increase.

However, while Nigerian government's effort to spur entrepreneurship has been genuine, it has not achieved its goal of economic prosperity. This is because banks request for collateral (although a prudent thing to do in a developed country) has led to exclusion of a majority of the population especially the poor in a developing country.

Ogunrinola and Alege (2008) cited the case of Bolivia and urged Nigeria to learn, from the mistakes of Bolivia to ensure that its microfinance sector can contribute economically to its progress. While noting that economic progress is important to entrepreneurship, they urged the Nigerian government to continue its steps in cleaning up the perception of the corruption in government by enforcing its patent infringement laws against businesses that sell counterfeit product; because similar to Bolivia, the Nigerian markets are filled with knock offs of original merchandise.

Theoretical Review

A great number of theories attempt to explain roles of micro financing in promoting economic growth. These theories explained the contributions of financing or financial services to the growth, and expansion of microenterprises towards economic development of the nation. An attempt is made here to review three of these theories considered relevant to this study.

Berger and Udell (1998) proposed a financial growth theory for small businesses where the financial needs and financing options changed as the business grows, becomes more experienced and less informationally opaque. They further suggested that firms lie on a size/age/information continuum where the smaller/younger/more opaque firms lie near the left end of the continuum indicating that they must rely on initial insider finance, trade credit and/or angel finance. The growth cycle model predicts that as firm grows, it will gain access to venture capital (VC) as a source of intermediate equity and mid-term loans as a source of intermediate debt. At the final stage of the growth paradigm, as the firm becomes older, more experienced and more informationally transparent, it will likely gain access to public equity (PE) or long-term debt.

This theory proposed by Myers (1984), is very familiar with the operations of the small business. It sheds light on the incentives that drive SMEs capital structure decisions. This theory proposes that firms prefer to use internal sources of capital first and will resort to external sources only if internal sources are inadequate. This theory has been found to be relevant to the financing of SMEs. Most SMEs start with internal financing before looking for external sources. Older firms, by definition,

have had more opportunities to accumulate retained earnings than younger companies and thus more funds are available to finance operational growth. Peeking order theory suggests that those funds should be used before external capital sources are tapped. Holmes and Kent (1991) found that small businesses experience a more intense version of pecking order in their decisions because access to appropriate external sources of capital is limited. It has been noted that small businesses differ in their capital structure but their intense reliance on pecking order is only one of the variables that make small businesses financing decision unique.

Stigilitz and Weiss (1981) proposed this theory. In contract theory, asymmetric information arises when one of two parties engaged in a business transaction happens to have more or different information than the other. In such a situation, one party often does not know enough about the other party and fails to make an accurate decision. This circumstance leads to a potential adverse selection and moral hazard problems in the credit market. Adverse selection is a problem arising from asymmetric information which occurs before a transaction is entered into. A lender may decide not to lend money although the borrower is worthy of the loan and has the potential to make loan repayments as expected. Moral hazard is a problem of asymmetric information that arises after transition has occurred. The borrower might engage in activities that are undesirable from the lender's point of view, and this makes it less likely that the loan will he paid back. For these reasons, formal financial institutions insist on collaterals as a prerequisite for providing loan money to small enterprises. The disbursement of loan money without securing adequate collateral is considered too risky. Stigilitz and Weiss (1981} have pointed out that information asymmetry is one major cause of credit constraint in small businesses and enterprises. According to the authors, capital does not always flow to small firms because of adverse selection and moral hazard, two factors that are known to have a devastating negative impact on small enterprises.

Review of Empirical Studies

Fasoranti, Akinrinola and Ajibefun (2006) examined the impact of micro credit and training on the efficiency of small-scale entrepreneurs in Ondo State. They identified technical efficiency of entrepreneurs to be influenced by human capital variables (which are characterized by level of education, business experience and age) and socio- economic/institutional variables (characterized by loan interest, loan size, contact with lender, training programme and training experience). This they estimated using stochastic production function frontier also called the composed error model of Aigner and ordinary least square.

The study is premised on determining the link between access to credit, training and technical efficiency and highlighting other significant factors that influence the level of efficiency in the baking, furniture making, and burn brick making micro-enterprises. The result obtained showed initial outlay and man hour to be the most significant factors influencing value of output for bakers, while capital outlay, man hour worked and expenditure on equipment in that order to be significant factor influencing value of output for furniture makers.

Ojo (2009) carried out a research work on the 'Impact of Micro finance on Entrepreneurial Development: The case of Nigeria to investigate the impact of microfinance on entrepreneurial development of small-scale enterprises that are craving for growth and development in an economy like Nigeria, the researcher used questionnaire as an instrument of primary data collection. Three different hypotheses were formulated and tested using various statistical tools such as chi square, analysis of variance and simple regression analysis. The study revealed that: there is a significant difference in the number of entrepreneurs who used microfinance institutions and those who do not; there is a significant effect of microfinance institutions activities in predicting entrepreneurial productivity: and that there is no significant effect of microfinance institution activities in predicting entrepreneurial development. The researcher concludes that microfinance institutions world over,

especially in Nigeria are identified to be one of the key players in the financial industry that have positively affected individuals, business organizations, other financial institutions, the government and the economy at large through the services they offer and the functions they perform in the economy.

Ogunrinola and Alege (2008) found the operation of UNDP-sponsored MFI to be beneficial to micro businesses in the rural based areas of Lagos State. Forty-two (42) of the enterprises that received microcredit reported business success as a result of the application of the loan received.. Micro-entrepreneurs in the study achieved a very high loan repayment rate of 96 per cent and reduced rate of business failure and also restricted rural-urban migration.

Garmaise and Natiridada (2010) provided direct evidence on the impact of asymmetric information on both financing and operating activities through a study of credit evaluations of microfinance institutions (MFIs). They employ a regression discontinuity model that exploits the eligibility criteria of an evaluation subsidy offered by a nonprofit consortium. The evaluations dramatically cut the cost of financing and found the effect strongest for commercial lenders and for short-term MFl-lender relationships. The impact of evaluations on the supply of finance is mixed. Evaluated MFIs lend more efficiently, extending more loans per employee.

Hartarska and Nadolnyak (2008) used the financing constraints approach to study the impact of microfinance on access to credit for microenterprises in Bosnia and Herzegovina. Using sensitivity analysis and multiple regression analysis, the data and method employed produced results consistent with more traditional impact studies on Bosnia for the same period. They show that MFIs improved access to credit in municipalities where two or more MFIs offered financial products because investment in local microenterprises was less sensitive to availability of internal funds than was investment in microenterprises in municipalities where microfinance activities were limited or non-existent and where micro entrepreneurs had to rely more on internal funds for investment.

Masakure, Cranfield and Henson (2008), presented a detailed analysis of the variation in performance of microenterprise in Ghana using data from the 1998/1999 Ghana living standards Survey (GLSS 4). They model the determinants of enterprise profitability using probit. OLS and quartile regression models to account for both the incidence and diversity in performance across the conditional mean distribution of profits. The results suggest that both the incidence and intensity of performance vary considerably across sub-sectors.

Kotir and Obeg-Odoom (2009), in a study of 139 households in one rural area of the Upper West Region of Ghana, found that, (a) Beneficiaries of micro-credit divert a significant portion of such loans into household, consumption albeit with moderate impact on household productivity and welfare and (b) Micro-credit has modest impact on rural community development.

Brown, Earle and Lup (2004) employed panel date techniques to analyze a survey of 297 new small enterprises in Romania containing detailed information from the start-up date through 2001. They found strong evidence that access to external credit increases the growth of both employment and sales of sample firms.

Jegede and Akiniabi (2011) examined the relationship between microfinance loan disbursement and poverty alleviation among 80 members of microfinance and non microfinance institutions in Lagos. The findings revealed that there was a significant difference between, those people who used microfinance institutions and those who do not use them. The study shows that microfinance has affected the life of the poor in a positive ways such as significant improvement in employment status, increase incomes ability to invest more capital into the business by the entrepreneurs and ability to expand their enterprises.

3. DATA AND METHODS

This study evaluated micro-financing as a platform for economic growth in Nigeria for the period 1992-2017. Secondary data on GDP were obtained from the CBN statistical bulletin of various years and the National Bureau of Statistics. Data collected was analyzed to facilitate valid conclusion on the effect of microfinance bank operation on economic growth in Nigeria. The major statistical tool used in the study is the multiple regression statistical technique. The model formulated for the study is given by:

$$GDP = F(CA, AQ, LQ) \quad ...(i)$$

$$GDP = \beta_0 + \beta_1 CA_t + \beta_2 AQ + \beta_3 LQ_t + U_t \quad ...(ii)$$

Where:

β_o = the intercept point, giving the value of GDP when CA, Aq and LQ are zero.

β_1= the marginal effect of changes in capital adequacy on GDP when all the other variables are held constant.

B_2 = marginal effect of changes in asset quality on GDP when all the other variables are held constant.

B_3 = the marginal effect of changes in liquidity on GDP when all the other variables are held constant.

GDP_t = Gross Domestic Product at time, t, proxy for economic growth and development.

CA_t = Capital Adequacy at time t

AQ_t = Asset Quality at time t

LQ_t = Liquidity at time t

U_t = Error term or stochastic variable

In the model above, capital adequacy, asset quality and liquidity were used as proxy for micro-finance bank operation and measured as follows:

Capital Adequacy**:** is a quantitative factor which can be used as an indicator of the performance of banks and their operations to SMEs.

Asset Quality: This is measured by the proportion of classified loans and advances to total loans and advances and it is another important indicator of the performance of banking operations.

Liquidity: This is measured by the ratio of loans and advances to total deposits of the bank. Inadequate liquidity will adversely affect major banking operations such as giving out of loans and advance

4. RESULT AND DISCUSSION OF FINDINGS

Table 1: Regression results of the relationship between micro financing and the growth of Nigeria economy.

Dependent Variable: GDP Method: Least Squares Date: 10/10/18 Time: 08:58 Sample: 1992 2017
Included observations: 26

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*

C	*4330.766*	*2787.695*	*1.553529*	*0.1377*
CA	*1.388692*	*0.508732*	*2.729712*	*0.0138*
AQ	*0.194608*	*0.300428*	*0.647767*	*0.5253*
LQ	*-0.851893*	*0.647008*	*-1.316665*	*0.2045*

R-squared	*0.898706*	*Mean dependent var*	*19894.86*
Adjusted R-squared	*0.881823*	*S.D. dependent var*	*24290.88*
S.E. of regression	*8350.442*	*Akaike info criterion*	*21.06098*
Sum squared resid	*1.26E+09*	*Schwarz criterion*	*21.25935*
Log likelihood	*-227.6708*	*Hannan-Quinn triter.*	*21.10771*
F-statistic	*53.23326*	*Durbin-Watson stat*	*1.623385*
Prob (F-statistlc)	*0.000000*		

Source: *Researcher Estimation, 2018*

The coefficient of multiple determinants R^2 of 0.898 in Table 1 revealed that about 89.8 changes in the dependent variable GDP is caused by a joint change in the independent variables of capital adequacy (CA), asset quality (AQ) and liquidity of micro finance banks. The value of adjusted R^2 of 0.881 revealed the model is 88.1 per cent goodness of fit. The F- statistics of 53.233 with a pv value of 0.000 shows that our estimate is significant at 5 per cent level of significant. It revealed that there exist a significant relationship between GDP of the country on one hand and capital adequacy (CA), asset quality (Aq) and liquidity of micro finance banks on the other hand.

The estimated coefficient for CA and AQ are positive, indicating that there existed a direct relationship between CA. AQ and GDP. However, only CA is significant at 5 per cent, thus, when CA increases, GDP will also increases and vice versa. The estimated coefficient for liquidity (LQ) is negative and insignificant at 5 percent. Therefore, there is an indication that Micro financing presents significant impact on economic growth and development in Nigeria ($F=53.233$, $p<0.05$).

Findings from the study support Ketu (2008), Rolando (2010), and Jegede (2011). Their findings showed that there exist a significant relationship between microfinancing and the growth of the economy. It also supports Shreiner (2005)'s position that the establishment of Micro- finance banks as an effort by the government to improve access to loans and savings for poor people is currently being promoted as a key development strategy towards enhancing poverty eradication and economic development.

5. CONCLUSION AND RECOMMENDATIONS

The study examined micro financing as platform for economic growth in Nigeria. Findings from the study showed that microfinance institutions have positive relationship with the Nigeria economy (represented by expanded GDP). About 89.8 per cent of changes in the nation's GDP were attributed to capital adequacy, asset quality, and liquidity of micro finance banks. The role of microfinance bank in economic growth and development is quite distinct as confirmed by the study. The contribution of the micro finance banks in economic growth in Nigeria is situated within the framework of entrepreneurial development since the major reason for the establishment of the microfinance bank is to ensure economic growth through the enforcement of the business entrepreneurs. Microfinance institutions in all over the world and especially in Nigeria are identified to be one of the key players in the financial industry that have positively affected individuals, business organizations, other financial institutions, the government and the economy. According to Douglas (2012), microfinance institutions are evident tools for entrepreneurship development due to the various services they offer and the role they performs towards the development of the economy. Microfinance institution contributes in building entrepreneurship activities in Nigeria through money lending rotating credits and savings practices to entrepreneurs.

In order to properly meet their goals of economic growth and poverty reduction mechanism, the study recommended that the different microfinance banks in the country should endeavor to render good services to the people and be able to encourage the growth of entrepreneurs by their financial operation within the community. In addition, microfinance banks should reduce the gap between their savings deposit rate and the lending rate by mobilizing more savings from the informal financial market which is an integral part of their operating environment.

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Risk Management Practices and Organisational Performance in the Nigerian Insurance Industry.

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Abstract

Every business organisation, inclusive of insurance is exposed to untold risks which may be caused fortuitously or naturally. Risk is a threat and without a critical systematic handling technique being in place, the occurrence of risk event may collapse an unwary organisation. The main objective of this study therefore, is to explore the impact of risk management practices on insurance organisational performance. Survey research design was adopted, and a structured questionnaire was administered to the 400 sample size respondents from the participating organisations. Hypotheses of the study relate to the impact of risk management practices on financial, strategic decision and corporate compliance performance of insurance companies. The results based on SPSS regression analysis show that risk management practices are positively correlated with financial performance, strategic decision making and corporate governance compliance. Thus this study's result is a valuable resource to top management of local insurance companies as risk is not only a threat but also present better opportunities, if adequately managed, for higher return to equity.

Keywords: Financial Performance, Organisational Performance, Risk Management Practices

1. Introduction

Worldwide, organisational performance is probably the most pervasive management concept. Jenatabadi (2015) noted that organisational performance is found in most human endeavours such as marketing, airline, education, management, computer science, etc, and as a result of its pervasive nature, there is no consensus definition of the concept. However, Jenatabadi (2015) defined organisational performance as the assessment of the constituents which carry out the varying activities aimed at achieving an organisation's objectives in the most efficient and effective way. Similarly, Khan, Nouman and Imran (2015) defined performance as a concept used to indicate hard work to attain a particular goal. Earlier, Richardo and Wade (2010) defined organisational performance as the ability of an organisation to achieve its goals and objectives. From the above, it can be assumed that management initiated performance measurement in order to ascertain the level of accomplishment of predetermined organisational objectives and initiate alternative actions to improve level of performance where need be.

This study is focused on the effects of risk emanating from the management of insurance organisation. No doubt, insurance organisations in both developed and developing economies are subject to rapid and complex environmental changes, however, only an organisation that could identify the need for change, design and implement changes required, more effectively and efficiently than others can prosper, while those who refuse to adapt to changes are not likely to survive (Kaplan & Mikes, 2012). The adaptation to changes is not without costs, such as risks which are threats to a firms resources and earnings capacity. These risks abound, because risks are inherent factors in every human endeavour (Kaplan & Mikes, 2012). This implies that irrespective of the type of business or strategy an organisation is engaged, she is exposed to risks just like individuals (Kaplan & Mikes, 2012). Risks may originate internally and externally. Business risks which originate externally reflect the

changes in social, technological, economic and political environment which can influence the frequency and severity of risk occurrence (Outreville, 1998), while internal risks originate within the organisation such as operational risk e.g human resources risk, legal risk, liquidity risk, supply chain risk, competence risk, information, communication and technology (ICT) risk (Kaplan & Mikes, 2012).

Today, with creative destruction and the volatile changes in the global business environment insurance companies need efficient risk management practices than any other organisation (Kaplan & Mikes, 2012). Failure in risk management process could lead to mispricing of insurance policies, non compliance to insurance regulatory requirement and officer squandermaia (Santomero & Babbel, 1997) which may end up in insolvency of an insurance company (Akotey & Abor, 2013). Previous studies in risk management implementation in insurance companies are domiciled in Asian and European countries with lesser attention paid to African developing countries (Akotey & Abor, 2013) like Nigeria. Consequently, the extent to which insurance industry in Nigeria clings to risk management practice, is yet to be empirically verified.

Financial crisis has rocked developed economies as well as developing economies of the world. The Nigerian financial system has undergone remarkable changes over years, in terms of the number of institutions, ownership structure, as well as depth and breadth of operations (Utomwen, 2019). These changes have been influenced largely by challenges posed by deregulation of the financial sector, globalization of operations, technological innovations and adoption of supervisory and prudential requirements that conform to international standards (Ogunleye, 2005).

More specifically, the banking and insurance institutions have been plagued by several challenges as highlighted by the Central Bank of Nigeria, such as, poor risk management practices resulting shareholder's appetite for high dividend and depositors quest for high interest on deposit. Others are gross undercapitalization low earnings resulting in huge operational loss, weak management as reflected by poor asset quality, insider abuse, inadequate internal controls and operation procedures, ignorance and non-compliance with rules, laws and regulations guiding financial business and unprofessional conduct. These have led to the declining state of the industry (Ajie, Ezi, Akekere and Ewubare, 2006, Adekanye, 2010).

Thus, the main objective of this study therefore is to assess the degree of risk management practices and its effects on insurance organisational performance in Nigeria.

2. Literature Review

Organisational performance measures provide the means by which an organisation manages its financial and non financial performance. However, defining, conceptualising and measuring organisational performance have not been an easy tasks, as researchers are different in their opinions and definitions of performance (Okeke Aganoke & Onuorah, 2018) and today remains a contentious issue among organisational researchers (Barney, 2008). Contemporary researchers viewed organisational performance as how an enterprise is doing in terms of profitability, markets share, product quality, in relation to its rivals (Okeke et al, 2018). Earlier, Elena-Luliana and Maria (2016) noted that organisational performance is measured with such concepts as productivity, efficiency, effectiveness, earning capacity, profitability competitiveness, etc. Moreover, Daft (2009) defined organisational performance as organisations ability to achieve its goals using available resources in an efficient and

effective manner while Rose (1995) defined organisational performance measurement as a process of evaluating performance relative to a defined goal. Acharyya (2008) stressed that the primary goal of measuring performance is to assess the progress of achieving corporate objectives which can either be financial such as cash flows, return on investment, and maximization of shareholders value or non-financial such as strategic, operational and ethical issues including corporate social responsibilities (Acharyya, 2008).

Generally, risk is any situation involving exposure to danger. In business, it is anything that threatens an organisation ability to achieve its predetermined goals such as enhanced profitability, increased productivity and good public image, customers' and employees' satisfactions. Risk therefore is the probability of the occurrence of adverse event and the consequences of that event (Sotic & Rajic, 2015). Risk management involves identification, evaluation, prioritization and control or treatment of risks (Chipa & Wamiori, 2017; Saleem & Ul-Abideen, 2009). The control aspect entails a coordinated and economical allocation of resources not only to maximize returns but to minimize the occurrence of unfortunate events (Chipa & Wamiori, 2017). This implies that organisations would avoid unexpected and unpleasant surprises where resources are economically and judiciously allocated. Thus, organisations enjoy high performance when risks are managed systematically. Contemporary researchers classified risk management practice into four broad classes i.e financial risk management practices, operational risk management practices, enterprise risk management practices and strategic risk management practices (Chipa & Wamiori, 2017). This classification ensures that organisations do not focus on disaster risk management, but makes effective use of risk management practice in improving communication, adopting efficient strategies to improve organisation performance by creating a sustainable competitive advantage. Thus, effective risk management can yield benefits such as financial performance, better strategy setting, greater competitive advantage improved service delivery, efficient use of resources and improved innovation (Chipa & Wamiori, 2017). Others, according to Wenk (2005) include fewer unpleasant surprises, less firefighting management, reduced fraud and waste management, better management and maintenance of all activities. The above implies that in a competitive market only efficient firms that are prudent in risk management would stay while less efficient ones would be chased out of the market. According to Akotey and Abor (2013) it is worthy of note that an insurance company is exposed to so many risks – strategic and operational – such as market risks, credit risk, liquidity risk, reputational risk, legal/compliance risk, information technology risk (Akotey & Abor, 2013; Utomwen, 2019). To the individual or corporate entity, risks capable of distracting the attainment of objectives or outrightly threaten or frustrate its survival abound. For a coporate entity, environmental catastrophes, accounting frauds and taking bribes to pervert the course of justice (OECD, 2014). Some of these risks are seen to be facilitated by corporate governance failures where the boards of directors are ignorant of the risk events of their companies (OECD, 2014).

From the perspective of corporate governance, the 2010 OECD review stated that boards of state-owned enterprises should fulfill certain key functions such as reviewing and guiding corporate risk policy and ensuring the appropriate risk management systems are in place.

Effective risk management system is not about eliminating risk taking, which is the fundamental driving force for an enterprise formation, but to ensure that enterprise risks are identified, understood, managed appropriately and communicated (OECD, 2014). Effective risk management requires an enterprise wide approach, however, in McKinsey (2011) survey, only 14% of the respondent (Board Members) had a adequate knowledge of the risks their

companies are exposed to. Also only 14% of the board's time was spent on business risk management processes.

Currently, many studies showed that effective risk management promotes good governance, however, Fadun (2013) in Nigeria, found that decision and implementation must commence from the boardroom and gain support from top management.

Standard and poor corporation one of the world's foremost credit rating firms reported in last decade that despite substantial geopolitical volatility, the insurance sector globally continues to demonstrate resilience and perhaps with some signs of strength. Furthermore, although she is faced with some notable challenges such as disruption of new technologies, cyber security and low interest rate levels, and other challenges, these do not prevent her to render high quality services (Kokobe & Gemechu, 2016). Researchers specifically identified poor liquidity management, under pricing and under reserving, high tolerance for investment risk, management and governance issues, expansion into unfamiliar market segments, which cause dramatic drop in solvency level are the main causes of financial distress and failure in some insurance companies (Laeven & Perotti, 2010). The desire to establish risk management procedures in an insurance company's operations is mainly to improve its performance and enhance its profitability (Kokobe & Gemechu, 2016). Standard and Poor observed that enterprise risk management (ERM) will assure that a company is attending to all risk, has defined her risk tolerance, has a methodology in place to avoid or mitigate risks outside its tolerance. Prudent risk management has the capacity of reducing unanticipated and costly losses and improves effective resource allocation, upward, downward and lateral communication within the company and better decision making.

A number of studies have been conducted and established a link between good risk management practices and financial performance of insurance companies (Kokobe & Gemechu, 2016). Specifically, Molisen, Arezoo and Vahid (2011) opined that there is a positive correlation between total risk management and a company's performance. An insurance company being risk absorber is faced with manifold risks which can render her insolvent (Akotey & Abor, 2013). This implies that insurance whose business is to reduce risk and protect clients against financial loss due to fortuitous events (Zhara & Mazreku, 2014) by taking premium in exchange of the risk of policy holders, need essential elements of risk management process such as spreading, and controlling of risk exposures, and provision of adequate protection through reinsurance (Zhara & Mazreku, 2014). Although the level of capitalization is an essential element to the financial health of an insurance company (Zhara & Mazreku, 2014) however, Akotey and Abor (2013) found that capital base alone is not enough for effective underwriting of risks, but must be augmented with a proper risk management practices in accordance with the insurance company's risk tolerance level. In support of the above, Zhara and Mazreku (2014) asserted that a common reason for bankruptcy of an insurance company is a combination of poor quality management of resources and inadequate risk management. Thus insurance organisations are encouraged to establish risk management functions, implement the statutory requirements, install internal audit and actuarial operations processes to enable appropriate risk management profile (Zhara & Mazreku, 2014). Banks (2004) stated that by managing risks, risk managers are able to increase the value of the firm through ensuring continued profitability. In the same vein, Jolly (1997) in her contribution opined that hindering losses through foresighted measures is a key to reducing risk and a driver to firms' profitability. Insurance company profitability is

measured by premium and investment income, underwriting results and overall operating performance (Eroedemi & Lee, 2015).

It is noteworthy to state that the efficiency of risk management in insurance companies would influence their financial performance (Kokobe & Gemechu, 2016). Thus a firm cannot survive with increase in loss and expense ratio (Kokobe & Gemechu, 2016). It is expected that efficient risk management will complement performance measurement system (PMS) by identifying and mitigating risks capable of impeding the achievement of the firms' strategic objectives.

In addition, Rejda (1998) and Santomero and Babbel (1997) stressed that a typical insurance company is exposed to actuarial or underwriting risks, market risks, credit or reinsurance risks, systematic risks, liquidity risks, legal risk and operational risks. However, once the risk appetite or tolerance level of an organisation is established (Tchankova, 2002) members would be able to actively risk at the firm's level i.e know what to accept, reject or eliminate by the organisation's standard and those to transfer (Santomero & Babbel, 1997).

Strategic planning is top management exercise involving long term forecast on the major goals of the organisation. It is a chosen course of action to achieve the firm's vision and mission i.e the organisational objectives (Falilat, 2013). Strategic planning creates a conceptual framework involving external environment which is characterised by risk, creative destruction, and uncertainties affecting a company's long run forecast/decision.

Munyithya (2003) conducted an empirical study on the management of property risks in Kenya insurance sector. The study findings revealed that although risk management process is consciously present in providing insurance services in Kenya insurance industry, there lacks a clear understanding of the discipline in the industry. For instance, the involvement of risk surveyors/managers in risk evaluation and control after they have made their strategic recommendations were very minimal. It was found that although insurance has adequate information of any risk management activity, there was lack of efficient means of storage and retrieval of the same.

3. Data and Research Methods

The population of this study comprises the entire senior staff of all listed insurance companies in Nigeria. The senior staff includes all managers and middle management team coupled with insurance officers or superintendents who are skilled and full time employees and possesses a minimum of bachelors degree in any discipline (Eva, 2018). This study chooses the senior staff as the study units of analysis because they implement the operational strategies of their firms (Wells, nd).

According to Nigerian stock exchange Factbook (2019) there are 24 active listed insurance companies operating in Nigeria, out of which a sample size of six firms was randomly selected to participate in this study. This research selected only six insurance firms as participant in the study, due to financial and time limitations. The study adopted systematic random sampling technique in which a sampling interval was first determined by dividing the number of elements in the sampling frame by the desired sample size i.e $^{24}/_{6} = 4$. Using the numerical figures to represent elements in the sampling frame i.e 1 – 24, and choosing the 1st element as the starting point, the researcher selected every 4th element from the sampling frame. Thus the 4th, 8th, 12th, 16th, 20th and 24th elements were selected through systematic random sampling technique. They are Axamansard Insurance Nig Plc (299), AIICO

Insurance Nig Plc (259), Mutual Benefit Insurance Nig Plc (185), Leadway Assurance Nig Plc (287), Custodian & Allied Insurance Nig Plc (125) and Nem Insurance Nig Plc (162) with their respective senior staff population, (in brackets) according to their audited annual account (2018). To calculate the sample size of respondents, we applied the Yamane (2016) statistical formula i.e

$$n = \frac{N}{1 + N(e)^2}$$

Where n = sample size, N = total number of elements, e = margin of error

The total senior staff strength of the participating firms amounted to 1317. Applying the Yamane (2016) formula

$$\frac{1317}{1 + 1317(0.05)2} = \frac{1317}{1318(0.0025)} = \frac{1317}{3.295}$$

$$= 399.6 = 400$$

A non probability sampling technique i.e purposive sampling was used to select the respondents from each participating insurance company. Purposive sampling which is a subjective sampling technique was chosen because it is most effective when one needs knowledgeable experts within (Tongco, 2007). Structured questionnaire was distributed to the senior staff of the participating insurance firms to solicit their opinions on the issues of risk management practices and organisational performance of their firms. The content validity of the questionnaire were validated through a pilot study in which few experienced researchers were chosen to respond to the statements and make suggestions for improvement, while Cronbach Alpha was used to determine the reliability of the research constructs which are organisational financial performance (0.81), risk management practices (0.79), strategic decision (0.73) and corporate governance (0.73).

With 52% response rate, data was analysed using descriptive statistics which summarized the vast quantity of data, succinctly in central magnitude, such as mean and spread. Pearson correlation analysis and regression analysis were also applied, to analyse degree of association of the research constructs and test the research hypotheses.

4. Results and Discussion

Table 1: Respondent's Socio Demographic Data

Variables	Response Label	Frequency	Percentage
Gender	Male	172	81.9
	Female	38	18.1
Age (In Years)	21-30	40	19.0
	31-40	84	40.1
	41-50	75	35.7
	>50	11	5.2
Level of Education	ND/HND	27	12.9
	B.Sc	103	49.0
	M.Sc	80	38.1
Working	<1	4	1.9
Experience (In	1-10	102	48.6
Years)	11-20	85	40.5
	21-30	17	8.1
	>30	2	1.0

Management Level	Top Management	29	13.8
	Middle Management	106	50.5
	Low Management	75	35.7
Department	Risk Management	34	16.2
	Finance/Accounts	13	6.2
	Human Resource	6	2.9
	Marketing	29	13.8
	Technical	60	28.6
	Operations	16	7.6
	Internal Audit	20	9.5
	ICT	4	1.9
	Compliance/Internal Control	18	8.6
	Others	10	4.8

Source: Author's Computation

Table 1 above shows the socio-demographic profile of 210 respondents. The male respondents were in majority with 81.9% while the females respondents were scanty i.e. 18.1%. The table also revealed that majority of the respondents are aged 30 years and above and about half of the respondents are experienced workers who has worked for upwards of 10 years. Educationally they are all skilled staff as 87.1% of the respondents possess either a bachelors or masters degree in their respective disciplines. As senior staff, about 86% of them are middle and lower management cadre, while only 13.8% of the respondents represent the top management team.

The mean and standard deviation of the respondents score of their opinions on items measuring risk management practices, organisational financial performance, strategic decisions, and corporate governance are discussed in the following paragraph. However, any item whose mean score is above '3' implies that the statement was accepted by the majority of the respondents, while lower than '3' implies the statement was not accepted. The first is risk management practice which was measured by five items. The mean of the respondents' score for each of the five items were between 4.27 and 4.54 with their respective stand deviations for each item falling below one i.e between 0.45 and 0.70. Organisational financial performance was measured by three items. The mean score for each of the three items were above 4.0 while their standard deviations were also below one i.e 0.72 to 0.78. Strategic decision making was also measured by three items; and their respective mean scores range from 3.92 to 4.30 and their respective standard deviations are between 0.65 to 0.81. Lastly is the corporate governance construct which was measured by three items. The mean score of the three items range from 3.94 to 4.14. In this study all mean score of the items were above the threshold of '3' which implies all the statements were accepted, implying that all the insurance companies in Nigeria according to this research are not only practicing risk management but are also improving in their financial performance and corporate governance.

Table 2 presents the results of the regression analysis for risk management as predictor of financial performance of the insurance. The results show that the correlation coefficient (0.560) indicates a positive and statistically significant relationship between the predictor (risk management practice and the response variable (financial performance of the insurance). The R-squared statistic as explained by the fitted model implies that about 31.4% of the total variation in measure of performance of the insurance companies is explained by the variations in risk management. The regression coefficient, t statistic (2.474) and p value (0.01) for the model shows that risk management exerts a positive and statistically significant effect on financial performance of insurance companies. Therefore, the null hypothesis is

rejected, and hence it can be concluded that risk management has a significant impact on financial performance of the Nigeria insurance industry.

Table 2: Risk Management vs. Financial Performance of Insurance Companies

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.560[a]	.314	.311	.49269

V. Predictors: (Constant), Risk Management

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	23.118	1	23.118	95.237	.000[b]
	Residual	50.490	208	.243		
	Total	73,608	209			

a. Dependent Variables: Insurance Performance

b. Predictors: (Constant), Risk Management

Coefficients[a]

		Unstandardised Coefficients		Standardised Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1.	(Constant)	.815	.329		2.474	.014
	Risk Management	.729	.075	.560	9.759	.000

a. Dependent Variables: Insurance Performance

Source: Authors Computation

Table 3: Risk Management Practices vs. Strategic Decisions in Insurance Companies

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624[a]	.390	.387	.44032

5. Predictors: (Constant), Risk Management

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	25.737	1	25.737	132.747	.000[b]
	Residual	40.328	208	.194		
	Total	66.065	209			

a. Dependent Variables: Insurance Performance

b. Predictors: (Constant), Risk Management

Coefficients[a]

		Unstandardised Coefficients		Standardised Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1.	(Constant)	.610	.294		2.073	.039
	Risk Management	.769	.067	.624	11.522	.000

IX. Dependent Variables: Strategic Decisions

Source: Author's Computation

Table 3 presents the results of the regression analysis for risk management as predictor of effective strategic decisions making. The results show that the correlation coefficient (0.624) indicates a positive and statistically significant relationship between the predictor (risk management practices) and the response variables (strategic decisions making). The R-squared statistic as explained by the fitted model implies that about 39.0% of the total variation in measure of strategic decisions is explained by the variations in risk management

practices. The regression coefficient, t statistic (2.07) and p value (0.04) for the model shows that risk management exerts a positive and statistically significant effect on strategic decision making. Therefore, the null hypothesis is rejected, and hence it can be concluded that risk management has a significant impact on the strategic decisions of the Nigeria insurance industry.

Table 4: Risk Management Practices vs. Corporate Governance in Insurance Companies

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496[a]	.246	.242	.58168

a. Predictors: (Constant), Risk Management

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
• Regression	22.948	1	22.948	67.822	.000[b]
Residual	70.377	208	.338		
Total	93.325	209			

a. Dependent Variables: Insurance Performance
b. Predictors: (Constant), Risk Management

Coefficients[a]

	Unstandardised Coefficients		Standardised Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1. (Constant)	.851	.389		2.187	.030
Risk Management	.726	.088	.496	8.235	.000

Dependent Variables: Corporate Governance
Source: Authors Computation

Table 4 presents the results of the regression analysis for risk management as predictor of corporate governance. The results show that the correlation coefficient (0.496) indicates a positive and statistically significant relationship between the predictor (risk management practices) and the response variable (corporate governance). The R-squared statistic as explained by the fitted model implies that about 24.6% of the total variation in measure of corporate governance is explained by the variations in risk management practices. The regression coefficient, t statistic (2.18) and p value (0.03) for the model shows that risk management exerts a positive and statistically significant effect on corporate governance. Therefore, the null hypothesis is rejected, and hence it can be concluded that risk management has a significant impact on the corporate governance of the Nigeria insurance industry.

This study assessed the impact of risk management practices on organisational performance in the Nigerian insurance industry. The findings show that risk management practices is positively associated with financial performance, strategic decisions making and corporate governance compliance. This study confirms the finding of Owolabi Oloyede and Akinola (2017) study which revealed that risk management in Mutual Insurance Company has great influence in the achievement of profitability of the insurance firm. Similarly, Chipa & Wamiori (2017) in Kenya, also found that financial performance of insurance firms depended on risk management practice (Liquidity risk management, Operational risk management etc).

In this study, hypothesis one revealed that risk management practices positively affect the financial performance of insurance firms, just as Akindele (2012) found that effective risk management enhances bank profitability, while bank's corproate performance depends largely on risk management and corporate governance compliance being enshrined into the organisational processes.

The findings from hypothesis two shows that risk management have a significant impact on strategic decisions in the Nigeria insurance industry. The implication is that effective risk management can help organisations meet the strategic objectives; such as protecting the capital base, enhancing value creation, supporting corporate decision-making process and protecting brand's reputation through promoting a sound culture of risk awareness (Na Ranong & Phuenngam, 2009). Moreover, Alexei (2017) also opined that risk management aids achievement of strategic objectives, through identification of factors associated with uncertainty, performance of risk analysis, and turning of risk analysis into actions. Given all the research findings above, it can be argued that risk management practices help to identify all the factors that could in anyway affect the targets set by the company (Renata & Veronika, 2015).

The findings from hypothesis three shows that risk management have a significant impact on the corporate governance in the Nigeria insurance industry. This confirms PricewaterhouseCoopers (2004) provisions which stated that the collaboration between corporate governance, risk management and compliance are necessary in order to achieve the corporate objectives and enhance shareholder value.

5. Conclusion

This study has shown that risk management practices have significant effects on the financial performance, strategic decision, and corporate governance compliance in the Nigerian insurance industry. Hence the study concludes that it is of crucial importance that insurance sector practice prudent risk management practices inorder to safeguard the assets of the insurance companies and protect the investors' interests. Thus, insurance organisations' managers should ensure that their members comply with rules and regulations, listing requirements and corporate governance. The general provisions of these codes not only promote and maintain a sound risk management system, but also foster good corporate governance (Manab, Kassim & Hussin, 2010; Paaple & Spekle, 2011; Fadun, 2013). In summary, ERM not only enhances compliance of corporate governance, good business practice, improved decision making but also advance value creation and survival of an enterprise.

Recommendation

This study recommends that all insurance managers in Nigeria should ensure that their firms clearly articulate their risk appetite and all employees embed risk management culture. Second, insurance regulators should endeavour to enforce risk identification, assessment, measurement and control mechanisms, in line with best global practice to improve insurance service delivery in Nigeria.

Limitations of Study

This study has two main potential methodological limitations. Worthy of mention is the sampling method which could be addressed by future researchers. For instance, the participants in this survey were selected only from the 30 listed insurance companies;

whereas in Nigeria there are according to Naicom up to 53 licensed and recapitalized insurance companies which implies that the unlisted but licensed insurance companies were disenfranchised in this study.

Furthermore, in the selection of respondents there was no sampling frame (list of all senior staff of the participating insurance companies, coupled with the limited access to the respondents, therefore the researcher used judgemental sampling a non probability technique. Future researchers could improve on the results by applying stratified random sampling technique, to select the participating companies and simple random sampling to determine the respondents from strata in proportion to the size of each stratum.

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CORRUPTION IN SMALL AND MEDIUM ENTERPRISES (SMEs) INTERVENTION SCHEMES AND THE PERFORMANCE OF SMEs IN LAGOS STATE

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ABSTRACT

Corruption in SMEs intervention schemes tend to have direct impact on the performance of SMEs as the loanable resources of the schemes may have been affected negatively through bribes, kickbacks, mismanagement and other fraudulent practices of the fund management. Nigerian government at various levels have put in efforts to ensure that the SMEs are encouraged to grow through intervention schemes which may not have yielded the desired result. This paper empirically examined the impact of corruption in SMEs intervention schemes and *the performance of SMEs in Lagos State using selected firms. In order to achieve this objective, some research questions were raised and hypotheses formulated. The study made used of primary data sourced from questionnaires administered to respondents. The research design adopted was survey research design and correlational research design. Three hundred and eighty four respondents were sampled from SMEs firms selected from the twenty local government councils of Lagos State and the Lagos State Entrepreneurship Trust Fund. The ordinary least square regression technique was used to analyze theunderlying hypotheses of the study. The ordinary least square regression technique was used to analyze the impact of corruption on SMEs performance. The result of the analysis revealed that a relationship exist between* corruption in SMEs schemes and *the performance of SMEs. The study further revealed that corruption has negative and significant impact on SMEs performance. It is therefore concluded that corruption in SMEs schemes have undermined the growth of SMEs in Lagos State in particular and Nigeria in general. The study recommends that Government should provide a monitoring and regulatory agency on SMEs schemes capable of reducing mismanagement and fraud in such schemes.*

KEYWORDS; Corruption, Mismanagement, Performance, SMEs

1. INTRODUCTION

Corruption in Small and Medium Enterprises intervention scheme refers to the potential loss or misuse of SMEs funds which raises questions about the integrity of the management in charge of the SMEs funds There are several signs of possible corruption and mismanagement as stated by various authors in Nigeria and over the World: granting loans to friends and associates without due process; gratification and bribe before loans are granted, diverting the funds to non-SMEs borrowers/ areas etc.(Akhidime 2014; Gsuleimenova Sadvokassova, Rakisheva and ArmanNurmaganbetov, 2018; Collins, McMullen and Reutzel, 2016) Corruption and mismanagement by the fund managers make it difficult for the growth, continuity and survivalof SME businesses. The ability of SMEs to generate employment as well as the optimum utilization of the capacity of SMEs is determined by the availability of finance at the disposal of the owners of the business. The corruption noticed in SMEs intervention schemes may have led to the non- performance of the various programmes established by government aimed at enhancing the growth of SMEs. Corruption is of growing concern to enterpreneurs as well as financial experts. Government interventions are mostly designed to address the supply side of the finance equation while ignoring the demand side (Olutoye, Akinmulegun and Olutoye (2016)).The inability of SMEs who are on the demand side to gain access to finance may be attributed to corruption and the increasing incidence of

fraud and fraudulent activities in government established schemes. Studies have argued that in Nigeria, financial fraud is gradually becoming a normal way of life (Akhidime 2014).

SMEs operators in Nigeria are compelled by the scheme managers to open accounts with designated banks and make deposits in some cases in a bid to secure loan from the schemes after which they are further compelled to provide collateral whose value may be higher than the loan value. The situation is such that they are also compelled to make deposits in the banks as equity contribution without considering the liquidity position of the SME borrower. Even the SMEs schemes created by government to assist SMEs directly also come with conditions that make it difficult for the SMEs and also make it possible for corruption to thrive. For instance, Nigeria Incentive-Based Risk Sharing System for Agricultural Lending states that borrowers must provide off takers, pay 3 percent of the credit risk guaranteed, equity contribution of 0-20 percent, lending rate at exorbitant rate compared to other countries of the world amongst others. Lagos State Employment Trust Fund (2016) provides conditions under which the SMEs can access the fund. Entrepreneurs are expected to provide guarantors with high credit rating in relation to the credit applied for and an insurance cover for the business. These are the reasons why SMEs in Nigeria are collapsing daily without hope of survival thereby culminating into crisis of confidence in the financing schemes. The present structure has made it very easy for scheme managers to perpetuate financial irregularities as individual perpetuates fraud and corrupt practice according to the capacity of their office. This tend to be possible because SMEs are more vulnerable to fraud due to their small size and huge desire for finance.

As part of the efforts of the Nigeria government to improve on SME funding, the Federal government has created various schemes including the Partial Credit Guarantee Schemes (PCGs) and Interventions. Their numbers are growing daily, they include Agricultural Credit Guarantee Scheme Fund (ACGSF), Small and Medium Enterprises Equity Investment Scheme (SMEEIS), N200 Billion SME Credit Guarantee Scheme, Secured Transaction and National Collateral Registry (NCR), N220Bn. Micro, Small and Medium Enterprises Development Fund (MSME Fund), N200 Bn. Commercial Agriculture Credit Scheme (CACS), N50 Billion naira Agriculture Credit Support Scheme (ACSS), Nigeria Incentive-based Risk Sharing System for Agricultural Lending (NIRSAL), N200 Billion SME Restructuring and Refinancing Facility (SMERRF), Entrepreneurship Development Centers (EDCs) SMEDAN, Lagos State Entrepreneurs Trust Fund (Lagos State Employment Trust Fund ("LSETF" or "the Fund")) amongst others. The Nigerian government became interested in CGSs in the aftermath of the global financial crisis amid the quest for development and emphasis on SMEs as an engine for growth and job creation in developing countries. However, for the CGS to be able to ease access to finance and effective, they need to be designed and implemented in SME-financially sustainable manner devoid of corrupt practices contrary to what is currently experienced in the schemes.

Bank's diversion of funds meant for SMEs is a constraint to accessing finance by SMEs in Nigeria. The rot in the system manifests in form of corruption, embezzlement and diversion of funds meant for the SMEs. The situation is such that the banks, after accessing the funds from CBN, divert the monies to other use like investments in coupon and government bonds instead of allowing SMEs to access it. Even the administrators of the funds created by the government for SMEs also mismanage the fund by not allowing the rightful borrowers to access it instead they grant loans to their friends, retired colleagues and relatives. Eseoghene (2010) also in a related study of bank frauds in Nigeria adopting the t-test statistics, revealed the underlying causes of bank fraud, highlighting the effects and suggesting possible remedies in a survey of a sample of 100 respondents and found bank frauds is common in

Nigeria. He also identified greed, corruption, infidelity, poverty, poor internal control and poor working condition as factors responsible for the prevalence. Hence, this discourages the SMEs from borrowing. Obokoh, Monday & Ojiako (2016) study on Microfinance banks and small and medium sized enterprises access to finance: the Nigerian experience found that loans based on nepotism and favoritism were a common practice in Nigeria which needed to be tackled with zero tolerance.

The fundamental objective of this paper is to establish a relationship between corruption in SMEs schemes and the performance of SMEs in Lagos State. The specific objectives are to-

1. Analyse the relationship between bribes and kick- backs and the continuity of SMEs in Lagos State.
2. Examine whether mismanagement of funds by the scheme managers have significant impact on SMEs survival in Lagos State.
3. Investigate the impact of fraudulent practices on SMEs ability to generate employment in Lagos State

The research questions raised are-

1. Is there any significant relationship between bribes and kick- backs and the continuity of SMEs in Lagos State?
2. Can mismanagement of funds by the scheme managers have significant impact on SMEs survival in Lagos State?
3. Can fraudulent practices impact significantly on SMEs ability to generate employment in Lagos State?

While the Hypotheses are-

1. There is no significant relationship between bribes and kick- backs and the continuity of SMEs in Lagos State
2. Mismanagement of funds by the scheme managers have significant impact on SMEs survival in Lagos State.
3. Fraudulent practices can impact significantly on SMEs ability to generate employment in Lagos State.

The study covered SMEs in Lagos State with number of employees of 11- 300

2. LITERATURE REVIEW

In the global context the term "SMEs" encompasses a broad spectrum of definitions. The concepts 'Small and Medium Scale enterprise, Small and Medium Enterprises, Small and Medium Scale Industries, Micro Small and Medium Enterprises are some of the terms that are used interchangeably to describe small and medium business organizations. The heterogeneous nature of this group of business made it possible for different countries to set guidelines for defining SMEs within the fixed co-ordinate of their national boundaries. Their guidelines for defining SMEs are often based on number of employees, turnover, cost of establishment or asset base. Below is a table of synthesis about the different approaches to SMEs conceptual definition.

Small and medium-sized enterprises (SMEs) are non-subsidiary, independent firms which employ fewer than a given number of employees. This number varies across countries. The most frequent upper limit designating an SME is 250 employees, as in the European Union. However, some countries set the limit at 200 employees, while the United States considers SMEs to include firms with fewer than 500 employees. Small firms are generally those with fewer than 50 employees, while micro-enterprises have at most 10 or in some cases 5

workers.

Financial assets are also used to define SMEs. In the European Union, a new definition came into force on 1 January 2005 applying to all Community acts and funding programmes as well as in the field of State aid where SMEs can be granted higher intensity of national and regional aid than large companies. The new definition provides for an increase in the financial ceilings: the turnover of medium-sized enterprises (50-249 employees) should not exceed EUR 50 million; that of small enterprises (10-49 employees) should not exceed EUR 10 million while that of micro firms (less than 10 employees) should not exceed EUR 2 million. Alternatively, balance sheets for medium, small and micro enterprises should not exceed EUR 43 million, EUR 10 million and EUR 2 million, respectively.
In Nigeria, National Policy on SME – SMEDAN (2013) define Micro Small and Medium Enterprises (M S M E) as follow- Micro in terms of asset not greater than N5mn (excluding land and buildings) with workforce not exceeding ten employees. MSMEs and Small Enterprises with asset greater than N5Mn not exceeding N50Mn (excluding land and building) with workforce more than 10 persons, but not exceeding 49 employees while Medium Enterprises also with asset greater than N50m not exceeding N500mn (excluding land and building) with workforce btw 50 and 199 employees.

Various definitions of corruption have been suggested by different authors. Gbetnkom (2012) maintained that the state is always involved in the definition of corruption, and that corruption is basically a particular state-society relationship. He further maintained that this relationship is based on a mutual exchange of benefits that is an exchange from which both the state and the society will draw some immediate and private benefit. Corruption in government schemes is basically a governance issue, perceived as a failure of managers of the institutions and a lack of capacity to manage the resources efficiently by means of a framework of social, judicial, political and economic checks and balances. It can be considered as a cankerworm bedevilling in a wide spread government establishments in developing countries because conditions favour it. The desire for personal gain is extremely strong and exacerbated due to wide spread poverty.

In Nigeria, corruption is constantly manifested in the forms of kick-back, embezzlement of public funds, mismanagement, bribery, influence peddling, and fraud. The mismanagement and abuses of public office are the prime motivation for the establishment of anticorruption commissions like EFCC and ICPC launched by the President of the Federal Republic of Nigeria and enacted by Act of Parliament. Despite the anticorruption commissions corrupt officers always seek to bypass legal competition and hamper the rules of normal societal functioning by taking bribes and kick-backs. Even at the federal level, they influence the choice of contractors to the State and also influence the exact modalities of contracts and their renewal. At the level of state owned schemes, they are prone to fiscal fraud, have access to privileged funds, to convert public funds to private use or access to shares in public enterprises through undergoing privatization.

In absolute terms, corrupt practices will generate a flow of resources either from the society or the state (extractive corruption) or from the state to individuals

This study is anchored on the new growth theory supported by Salvadori (2003);(2006); Temple (1999) amongst others. (The New growth theory argues that human's desires and unlimited wants foster ever-increasing productivity and economic growth. The new growth theory states that the real GDP per person will perpetually increase because of people's pursuits for profits and vice versa.

In the theoretical framework, the effect of corruption in government schemes manifesting in bribe, kick-back and mismanagement of resources on small and medium enterprises are reviewed. Meanwhile, the primary objective of government establishing the SMEs schemes is to enhance the growth and development of small enterprises which have implications for poverty reduction in Nigeria. In the context of Nigeria, the small enterprise sub-sector is particularly important because extended households and other social insurance mechanisms to deal with unanticipated income shocks, such as sudden unemployment, are prevalent. In the absence of government-sponsored employment or large corporate safety nets that have gradually disappeared over the past decades, the income-generating opportunities provided by small and medium enterprises play an important role in employment generation, daily income provision, poverty reduction and household risk reduction amongst others.

Corruption in SMEs schemes may also cause a loss of efficiency for individual SMEs firms because it may force them to incur a number of unproductive costs, thereby leading to a welfare-reducing allocation of resources. When managers of the schemes base their bribe price on what they can observe during loan processing and inspection, bribe payments act as a hike on the value of factors of production. This is because corruption changes relative factor prices and may lead to sub-optimal use of inputs.

The policy was in launched in 2007 which maps the MSME regulation landscape. It defines the MSME segments. The policy needs to be revisited as current proposed revisions to segment definitions by SMEDAN should be done with caution to avoid adversely shifting the banks' targets (Enhancing Financial Innovation and Access 2013). The policy was launched 2005, revised in 2011. It categorizes Micro Finance Banks (MFB) in Nigeria according to whether operating at a Unit, State of National level. The CBN stipulates 80% of MFB lending portfolio must go to Micro enterprises. The objectives of the policy are laudable but it has not lived up to expectation as importance should be given to the structure of the market so that the policy can achieve the right trade off between focus, scale and risk involved. The scheme was launched in 2001 collapsed in 2008. It mandated all banks to set aside 10% after tax profit to invest as equity in SMEs. Unfortunately SMEEIS failed to achieve its developmental aims as it did not match banks capabilities. There is no indication that SMEEIS will be reinstated.

The agency according to SMEDAN 2013 was established in 2003, to facilitate the promotion and development of a structured and efficient Micro, Small, and Medium Enterprises (MSMEs) Sector that will enhance sustainable economic development in Nigeria. It became operational in 2005 and funded by the Federal Ministry of Trade and Industry, Bank of industry (BOI) and National Economic Reconstruction Fund (NERFUND). The goal is to facilitate growth and development of MSMEs in Nigeria. It also plays a role in policy formulation and data collection .It has established 15 business Support Centers, 37 Business Info Centres; trained 9, 000 MSMEs in 2011. Due to public outcry it currently focuses more on demand side capacity building. Outreach and branches are currently very limited compared to the population and land mass in Nigeria . The Agency is the apex and coordinating institution for all matters relating to starting, resuscitating and growing MSMEs in Nigeria. The Agency is also saddled with the responsibility of contributing to the attainment of Vision 2020, the Transformation Agenda of the present administration and the Cluster Development Approach of the Ministry of Trade and Investment.

Small and Medium Enterprise Credit Guarantee Scheme (SMECGS) was launched in 2010 with a fund of N200bn and managed by CBN. The eligible borrowers are SMEs (using national definition). The maximum loan size for borrowers is N100m with seven-year tenure. Borrowers are to provide adequate collateral for their facility. The lending rate for banks is

prime with 80% guarantee while banks take 20 percent risk on SMEs loans. The scheme is not effective as few projects have been financed.

Agricultural Credit Guarantee Scheme Fund was launched in 1977 with a fund of N3bn, managed by CBN, currently value N8.5bn • Eligible borrowers: Agricultural industry • Max loan size: For cooperatives: N5m; For corporate: N10m; unspecified tenure • Variety of collateral options available, uncollateralized allowed for less N20 000 loans • Lending rate: not stipulated • 75% guarantee

Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) is an establishment of the Central Bank of Nigeria (CBN) under the Buhari/ Osinbanjo administration through the Bankers Committee (BC) and the Federal Ministry of Agriculture & Rural Development (FMA &RD). NIRSAL provides guarantee to agricultural borrowers in form of Credit Risk Guarantee (CRG) as a leverage for the Banks to lend and encourage the farmers through provision of Interest Drawback Program (IDP) to be paid quarterly based on the agricultural project. The Guarantee ranges from about 30-75% depending on the Agricultural value chain involved. IDP also ranges from 20-40% depending on the category. NIRSAL(2018) states that it has five basic objectives that it hopes to achieve using various dynamic and holistic approach to tackling the challenges facing the agricultural finance value chains. They are to:

- Make sure agricultural value chains is fix to provide a reliable platform for de-risking agricultural lending
- Mobilize funds for financing the Nigerian agribusinesses by using credit guarantees to address the risk of default
- Provide technical assistance through capacity building across the value chains
- Reduce the cost of borrowing by agricultural producers from commercial banks
- Provide technical advice to agribusinesses

All players in the agricultural value chain are expected to benefit under NIRSAL. It's a financing initiative that will provide farmers with affordable financial products and reduce the risk of granting bank loans to farmers.

General Requirements

1. You are expected to open an account with the Bank
   2. You are expected to belong to Agricultural value chain where you operate must be clearly identified
   3. You are expected to provide off takers must be identified, and contract agreements must be sought
   4. You are expected to make payment of annual 3% CRG for guaranteed portion based on the classification of the client project
   5. You are expected to be eligibility for IDP on the commercial interest charged is at the NIRSAL's discretion and to be paid quarterly
   6 You are expected to provide equity contribution between 0 - 20%
   7. You are expected to pay interest rate at commercial rate
   8. You are expected to have an Insurance Policy from Nigeria Agricultural Insurance Corporation (NAIC)
   9. You are expected to provide collateral.

10. Maximum credit: Subject to request
11. Maximum tenor: Not fixed, based on request
12. Pricing: commercial rate

Bank of Industry (BOI)

BOI is established to provide refinancing and liquidity to financial institutions. The bank in 2010 approved a fund of N200bn issued by BOI (on behalf of CBN). The fund is used for loans made to the manufacturing sector with a maximum loan size of N1bn and maximum interest chargeable by banks 7% (per annum) while interest charged by BOI is 1% (per annum) with maximum tenure of 15 years. Genesis Analytics Team Analysis (2012) assessment of the bank indicates that refinancing activities do not expand access, but reduce and concentrate losses while wholesale funding schemes are needed when institutions struggle with liquidity. The fund has assisted banks refinance manufacturing loans – alleviating pressures on the short term. This has also helped SMEs in the manufacturing sector who had existing loans, but has not extended additional loans, the bank needs wide scale infrastructural distribution if they are to lend directly to SMEs.

BOI in the current administration launched a youth empowerment program called Youth Entrepreneurship Support (YES) for young and talented entrepreneurs who want to start business in various sectors of the Nigeria's economy. This is BOI's effort at addressing the worrisome phenomenon of youth unemployment in Nigeria by building the capacity of the youths and funding their business ideas.

The YES programme is aimed at equipping young people with the requisite skills and knowledge to be self-employed by starting and managing their own businesses. The YES Programme comprises of:

Lagos State Entrepreneurs Trust Fund (Lagos State Employment Trust Fund ("LSETF" or "the Fund"))

LSETF was established by His Excellency Akinwumi Ambode administration under the Lagos State Employment Trust Fund Law 2016. It is to provide financial support to residents of Lagos State, for job, wealth creation and to tackle unemployment. LSETF serves as an instrument to inspire the creative and innovative energies of all Lagos residents and reduce unemployment across the State. The Fund has the mandate to directly invest ₦25Billion in helping Lagos residents grow and scale their Micro Small and Medium Enterprises ("MSMEs") or acquire skills to get better jobs.AkinwunmiAmbode (2016) in the launching of the fund states that the LSETF is committed to financially support a target of 100,000 MSMEs by 2019, creating 300,000 direct and 600,000 indirect jobs as a result. The fund is well underway with a total of 705 beneficiaries who have received credit between five hundred thousand naira to five million naira support to their businesses to date.

YouWIN Connect Nigeria.

YouWIN Connect Nigeriawas established by Federal Ministry of Finance as a multimedia programme of the ministry. The programme aims to promote entrepreneurship, job creation and wealth via enterprise education for young Nigerians. Nigerian entrepreneurs will enhance their productivity through relevant SME development tools. These ventures are promoted by young Nigerians in target sectors that align with the government's objective of diversifying the economy and promoting competition and transparency

The first edition, tagged YouWin!1, was initiated to sensitize aspiring entrepreneurial Youth on job creation by funding their business plans. The second edition (YouWin!2) was a Mono-gender version, with Women below the age of 45 years as the target participants. It rewarded over 1200 youths. The third edition (YouWin!3) was Poly-gender, with a record number of awardees (over 2500 Youth).

To be eligible to benefit from the programme:

- You must be a graduate from a higher institution.
- You must be between the ages of 18 and 40.
- You must be Nigerians and resident in Nigeria.
- You must be must be resident in Nigeria.
- You must be able to communicate effectively – speaking and writing – in English.
- You must be willing to attend all training and mentoring exercises organised by the programme.
- You must be an employee of the Nigerian Civil Service.
- Previous YouWiN awardees are not eligible to apply.

Empirical review

SMEs literature has link its contribution to the socio-economic development of the country under favorable conditions.A lot of publications are devoted to SMEs and corruption issues.Various researches have shown that corruption is an impediment to the development of SMEs (Mahfuzur, 2017;Ayandibu and Houghton 2017)) amongst others. Meanwhile, the conclusions drawn from these publications are based on survey on perceptions of corruption on business growth. For example, the SME Managers survey conducted in 2013 by the Institute for Economic and Enterprise Research as cited by Suleimenova 2018*etal*,found that the higher the degree of corruption, the more negatively SME Managers consider the institutional environment. Firms must pay bribes to obtain economic benefits (IEER 2013).Ronald (2015) states that widespread corruption in a country has a negative impact on economic growth. A research of the All-Russian NGO of Small and Medium-sized Businesses, conducted in 2014 also cited by Suleimenova 2018 *etal*, revealed that "mainly civil servants are interested in corruption links, and entrepreneurs are forced to "adapt" to the current situation" (Opora, 2014). Xun.,Chandramohan and Bali(2016)states that a "vicious cycle of bribery and corruption" is being formed. The vicious circle begins when firms are forced to practice bribery because of the high level of corruption in their operating environment. The increased participation of firms in the practice of bribery further con-tributes to the perception of high corruption. In turn, this makes the practice of bribery even more uncontrollable (Xun et al. 2016). SimilarlyKrammer (2016) argues that bribery plays a positive role in the introduction of innova- tion. Firms deliberately pay bribes to bypass bureaucratic procedures (Krammer 2016).

2. DATA AND METHODS

The study adopts survey research design. The population of the study comprises of SMEs firms in Lagos State numbering (11,663), Small (11,044), Medium (619). The study adopted a sample of two hundred respondents which consist of the owners and managers of the SMEs firms. The sampling was done using simple random sampling techniques, the sample sizes was determined using Cochran (1977). The study adopted a sample of three hundred and eighty four respondents which consist of the owners and managers of the SMEs firms and staff of LETF.. The data was generated using well-structured Likert scale questionnaires of strongly agree, agree, strongly disagree, disagree and undecided. The study employed ordinary least re regression method. The model of study is operationalized thus-

SMEp=f(corr.) or$y = f(x)$ …(1)

$y = \beta 0 + \beta 1xi_1 + \beta 2xi_2 + +\beta 3x3 + \epsilon$…(2)

Where

SMEp= SMEs performance

$x1$==Bribe and kick-back

$x2$=Mismanagement

$x3$=Fraudulent practices

4.Results and Discussion of Findings

With regards to bribe, mismanagement and fraudulent practices, 65% of the respondents agreed that SMEs funds are not properly managed by the scheme managers; 67% agreed that SME-credit institutions are not always quick and willing to grant loans to SMEs borrowers from SMEs funds; 67% agreed that funds meant for SMEs are diverted to other use by the managers of the fund; 66% agreed that SME-credit institutions terms of offer on SMEs loan in Lagos State has duration of payback of loan within a year 61% agreed that SMEs borrowers not accessing loans from SMEs scheme is attributed to fraudulent practices of scheme managers; 71% agreed that the poor performance of SMEs in Lagos State can be traced to difficulty created by SME fund management;76% agreed that there can never be growth of SMEs resulting from lending practices of SME-credit institutions in Lagos State; 72% agreed that conditions for credit facilities by SMEs schemes are too harsh and therefore encourage bribe of scheme officials in Lagos State; and 61% agreed that the employment generation ability of SMEs is hindered by70% of the respondents agreed that the major reason for bank not granting loans to SMEs owners is the risk of continuity of the SMEs business; 64% of the respondents agreed that SMEs schemes terms of offer on SMEs loan in Lagos State has short duration that affects the continuity of SMEs business.

Hypothesis one

There is no significant relationship between bribes and kick- backs and the continuity of SMEs in Lagos State

Table 1: Relationship between Bribe and Continuity of SMEs

Correlations

		Bribes and kick-backs	Continuity of SMEs
Bribes and kick-backs	Pearson Correlation	1	-.991
	Sig. (2-tailed)		.000
	N	200	200
Continuity of SMEs	Pearson Correlation	-.991	1
	Sig. (2-tailed)	.000	
	N	200	200

Table 1shows that there is a high negative relationship between corruption and the growth of SMEs in Lagos State (r = 0.901). This result is statistically significant because the p-value of the result (0.000) is less than the 0.05 level of significance used for the study. This implies that as corruption is increasing, the growth of SMEs in Lagos State is decreasing. Null hypothesis is not accepted; thus it is concluded that there is a significant high negative relationship between corruption and the growth of SMEs in Lagos State.

Hypothesis two

Mismanagement of funds by the scheme managers have significant impact on SMEs survival in Lagos State

Hypothesis two

The mismanagement of funds by the scheme managers have significant impact on SMEs survival in Lagos State.

Table 2

Regression analysis of hypothesis 2

ANOVA output

Source	*SS*	*df*	*MS*	*F*	*p-value*
Regression	326.8905	1	326.8905	2650.87	.000
Residual	24.2930	197	0.1233		
Total	351.1834	198			

Regression output

					confidence interval
variables	*Coefficients*	*std. error*	*t (df=197)*	*p-value*	*95% lower*
Intercept	5.9449	0.0483	122.987	3.21E-188	5.8496
Fund mismgt	-0.8999	0.0175	-51.487	3.19E-116	-0.9343

r^2	0.931	n	199
r	-0.965	k	1
Std. Error	0.351	Dep. Var.	**SMES SURVIVAL**

Table 2 shows there is a negative relationship between mismanagement of funds by the scheme managers have and SMEs survival in Lagos State. The value of the coefficient of determination shows that 93.1% of the variance recorded in SMEs inability to survival in Lagos State is accounted for by mismanagement of funds by the scheme managers (R^2 = 0.931, $p<0.05$). This value is statistically significant because the p-value of the result (0.000) is less than the 0.05 level of significance used for the study.

The ANOVA result shows that at 197 degrees of freedom, the critical value of F (3.88) is less than the calculated F value of 2650.87This signifies that the regression model provides a good fit to the data in the sample.

The simple regression model for this hypothesis is:

$Y = \alpha_1 + \beta_2 X_2$

SMEs survival = 5.94 - 0.90 mismanagement of funds by the scheme managers

An evaluation of the unstandardized coefficient of mismanagement of funds by the scheme managers and its associated p-value (β_{MF}= -0.90, $P < 0.05$) shows that a unit increase in is management of funds by the scheme managers will result in a 90% decrease in SMEs survival. Null hypothesis is not accepted; thus it is concluded that Mismanagement of funds by the scheme managers have significant high negative impact on SMEs survival in Lagos State.

Hypothesis three

Fraudulent practices can impact significantly on SMEs ability to generate employment in Lagos State.

Table 3 Regression analysis of hypothesis 3

ANOVA output

Source	*SS*	*df*	*MS*	*F*	*p-value*
Regression	411.2530	1	411.2530	11380.53	.000
Residual	7.1189	197	0.0361		
Total	418.3719	198			

Regression output					*confidence interval*
variables	*coefficients*	*std. error*	*t (df=197)*	*p-value*	*95% lower*
Intercept	5.9833	0.0262	228.659	6.90E-241	5.9317
Fraudulent practices	-1.0093	0.0095	-106.680	3.14E-176	-1.0280

r^2	0.983	n	199
r	-0.991	k	1
Std. Error	0.190	Dep. Var.	**Employ. Gen.**

Table 3 shows there is a negative relationship between fraudulent practices and SMEs' abilities to generate employment in Lagos State. The value of the coefficient of determination shows that 98.3% of the variance recorded in SMEs inability to generate employment in Lagos State is accounted for by Fraudulent practices (R^2 = 0.983, $p<0.05$). This value is statistically significant because the p-value of the result (0.000) is less than the 0.05 level of significance used for the study.

The ANOVA result shows that at 197 degrees of freedom the critical value of F (3.88) is less than the calculated F value of 11380.53. This signifies that the regression model provides a good fit to the data in the sample.

The estimated simple regression model for this hypothesis is Y= 5.98 -1.0093x

An evaluation of the unstandardized coefficient of Fraudulent practices its associated p-value (β_{fp}= -1.0093, P < 0.05) shows that a unit increase in fraudulent practices will result in a 100% decrease in SMEs ability to generate employment. Null hypothesis is not accepted; thus it is concluded that fraudulent practices significantly negatively on SMEs' ability to generate employment in Lagos State.

.Conclusion and Recommendations

The findings of this study revealed that corruption in SMEs schemes have negatively affected the growth of SMEs in Lagos State. Based on the findings of the study, it is therefore recommended that EFCC should extend their dragnet to cover SMEs schemes in order to reduce corruption and allow the funds to get to SMEs borrowers thereby enhancing their performance.

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Government Effectiveness, Public Expenditure and Economic Growth: Evidence of Long Panel Test based on MG and PMG for Sub-Saharan African SSA Countries.

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Abstract

The study employs long panel data under the MG and PMG methods to investigate the dynamics of economic growth, government effectiveness and public expenditure over the period 2002 to 2018 for SSA countries. Our results are consistent with homogenous assumption, and they reveal that government effectiveness of upper middle income countries has negative influence on their economic growth in both short and long-run dynamics. The effectiveness of the government of the lower middle income countries has positive impact on growth. The economies of the low-income countries have a negative relationship with effectiveness in the long run, but positive association in the short run. In both cases, effectiveness has no significant impact on growth. Furthermore, expenditure has negative impact on the economies of the upper middle-income countries in both long run and short run go-head. For lower middle income countries, the long run influence of expenditure on economic growth is positive and highly significant. Nevertheless, the influence is negative in the short run and insignificant. Differently, for the low-income countries, expenditure has positive influence on economic growth in both short run and long run go-ahead. Therefore, we conclude that effectiveness has negative and insignificant impact on economic growth upper middle income economies, but positive influence on the growth of both lower middle income and low income countries. While expenditure influences the growth of upper income countries inversely, it impacts the growth of lower middle income and low income countries positively. In this context we recommend expenditure switching policy in favor of capital goods by discouraging consumption of conspicuous *goods through imposition of tax or outright ban.*

Keywords- Effectiveness, expenditure, Mean group, Pooled mean group, SSA.

1. Introduction

It is seemingly difficult, particularly in Sub-Saharan African (SSA) countries, to adduce a plausible or crowded reason for the annual increase in government expenditure in the face of declined, depreciated and cosmetically dressed economic activities. Therefore, the link between government expenditure and economic growth has become a debatable issue in contemporary public finance. In view of this, Easterly and Rebelo (1993), Singh and Weber (1997), Semmle (2007), Motmmell (1990) and Delome (1999) established that there are significant positive effects of public expenditure on growth. In the same spirit, Nwaeze (2010), Abu and Abdullahi (2010) observed that some scholars argue that increase in government expenditure pattern had positive impact on socio-economic growth. Lin (1994) ideally said that government activities such as the provision of goods, infrastructure and interaction with the private sector may increase output which may lead to economic growth. Bhatia (2002) argued that government development expenditures have an active role on

creating infrastructure of economic growth in the form of capital goods, education and training and communication facilities. , Komain et al. (2007) result demonstrated a significant positive effect of government spending on economic growth. Olugbenga and Owoeye (2007) suggested a positive and a healthy relationship between government expenditure and economic growth. Obasikene (2017) provided evidence that government capital expenditure has significant positive effect on growth.

On the contrary, Dickenson (1996) emphasizes the need for minimal level of public expenditure for accelerated economic growth. Others, studies like Abu- Badaer and Abu-Quarn (2003) and Schaltegger and Torgler (2006) indicated that large government size is disadvantageous to economic growth. Fan and Rao (2003), states that structural adjustment programs had a positive growth-promoting impact in Asia and Latin America, but not in Africa. Fan and Rao (2003), Devarajan et al. (1993) confirmed that expenditure on defense and education seem to have negative impact on economic growth. Gupta et al. (2005) suggested that a rise in current spending, particularly wages, has a negative effect on growth. Gemmell, Kneller and Sanz (2015) stressed that reallocation of government expenditure towards social welfare has negative impact on economic growth. Abu and Abdullah (2010)revealed that government total capital expenditure, total recurrent expenditure on Education has negative effect on economic growth.

Unequivocally, the series of studies above show a discrepancy on the relationship between government expenditure and economic growth. This implies that mixed results have already been documented in the literature on this relationship. Since, these mixed reactions are still ongoing, this study fits in appropriately to provide vital information on the missing gap. Most importantly, no of these studies provided a framework that show the joint effects of government effectiveness and public expenditure on economic growth for SSA countries. In the light of this defect, we are grossly inspired to augment the growth-expenditure model to include effectiveness in a panel setting. Specifically, we adopt the combination of MG and PMG methods to deal with the perceived heterogeneity. The rest of this paper include literature review, data, model, result and conclusion.

2. Literature Review

Buchanan and Tullock (1977) examined Wagner's thesis with U.S data. But they related public expenditure to the output of public goods alone. They observed discrepancies between the growth of expenditure and the growth of output, which they designed as 'Wagner Squared Hypothesis'. They base their argument on two facts. Firstly, more rapid growth of expenditure on administration than that on the output of state activities; Secondly, increasing proportion of population covered by social security and other transfer payments. However, limitations of these twin hypotheses stem from the general difficulty of measuring the output of public administration. Output of public and merit goods are often measured by cost which itself depends on expenditure on particular items. Alan Tait Peacock does not argue with this explanation of Buchanan and Tullock. He says that a typical individual does not relate his tax payments with them receipts of government services. He considers his tax liabilities as they are and strives for additional opportunities for making government services and not for reducing taxes. Politicians, in trying to win votes, try to expand government services and therefore impose more taxes. The government expenditure keeps on increasing without any reference to productivity cost of government services.

Devarajan et al. (1993) employed panel data for 14 advanced countries (1970-1990) and used OLS method, 5-year moving average. They took various functional types of expenditure (health, education, transport, and others) as explanatory variables and their results show a positive and significant effect on health, , and communication, but defense and education seem to have the opposite impact on economic growth. Donald and Shuanglin (1993) employ a sample data of 58 countries to examine the different effects of different levels of expenditure on economic growth. The results of their studies show that public spending on education and defense has a positive impact on economic growth and that of welfare appeared insignificant and negative. Bose et al. (2003) used a panel data of thirty developing countries over ten years from 1970 to 1980 to examine the growth effect of public expenditure with a particular focus on different sectors of the federal spending. They have a mixed result. Firstly, they noted a confident and robust correlation between the share of government capital expenditure in GDP with economic growth, but current spending shows an insignificant relationship. Secondly, when they employed a data at the sectoral level, government investment and total expenditures on education seem to be the only sector significantly related to economic growth once the budget constraint and omitted variables are taken into consideration. Similarly, Komain et al. (2007), employing the Granger causality test, examined the relationship between government expenditures and economic growth in Thailand and found that government expenditures and economic growth are not co-integrated. The result also suggested that a unidirectional relationship exist, as causality runs from government expenditures to growth.

In most recent time, Abu-Eideh (2015) found a long-run relationship between public expenditure and GDP growth. In addition and using the Granger causality framework, both public expenditure and GDP were found to have a feedback relationship. Wagner's Law was thus validated for Palestine as both public expenditure and GDP were found to grow substantially. Additionally, Masan (2015) investigated the relationship between GDP and total as well as disaggregated public expenditures in Oman over the period 1980-2005 using the Engle-Granger's two-step co-integration and Granger Causality techniques. The results do not show evidence of long-run equilibrium between government expenditures and national income, but they support the short-run unidirectional causality from economic growth to government expenditures, implying that a rise in the level of national income may be a cause in the growth of government expenditure, in line with the Wagner's Law.

Further, Keho (2015) examined the causal relationship between government expenditure and economic growth and tested the validity of Wagner's Law for tenth African countries. Using the Granger causality tests in the frequency domain which allows short, medium and long run causality to be distinguished, the results indicate that Wagner's law holds for Cameroon only in the medium term, for Ghana in the short, medium and long terms and for Nigeria in the long-run. The opposite results were found for Gabon and Senegal in the short, medium and long run, and for South Africa in the medium and short run. For Burkina Faso, bidirectional causality was found between government expenditure and income over the short, medium and long run.

Besides, Ahmad and Suleiman (2015), investigated the link between government spending and economic growth on Nigeria between 1972 and 2011, using the Autoregressive Distributed Lag testing, combined with Toda-Yamamoto non- Granger causality test. The

empirical results indicate that there is cointegration in both methods employed, while the causality test results are supportive of the Wagner' Law.

Bayu (2015) investigated the nexus between economic growth and government expenditure for the Ethiopian economy, using annual data from 1974 to 2009 and the Engel-Granger co-integration technique. The result shows that only the Peacock and Wiseman (1961) version of Wagner's law is supported. Moreover, a unidirectional causality was found to run from economic growth to government consumption expenditure.

Further, Keho (2016) examined the relationship between government expenditure and national income for sixth African countries over the period from 1960 to 2013. Using the Gregory and Hansen (1996) co-integration test which allows for a structural break in the long run relationships, evidence of Wagner's law was found for Ghana over the period 1960-2013 and in Cote d'Ivoire for the period 1960-1995. For Kenya, in the period 1960-1991, both the Wagner's law and Keynesian hypotheses were supported. The results for the other three countries (namely Benin, Senegal and South Africa) do not support either the Wagner's law or the alternative Keynesian hypothesis in the long run. Thabane and Lebina (2016) examined the long-run and causal relationship between government spending and economic growth in Lesotho using the ARDL bounds testing procedure for the period 1980 to 2012 and found a stable long-term relationship between government spending and economic growth. In addition, a bidirectional causality running from economic growth to government expenditure was found, confirming Wagner's Law.

3. Data and Method

The study employs long panel data. The data are collected on effectiveness, public expenditure and GDP from World Bank. The data are raw annualized data spooning over 2002 to 2018. The inherent trends are removed by differencing. So basically, the data are I (1) differenced data over the above specified period. The time dimension of the data is 16, while the individual dimension is 7 units for each group. This gives a total observation of 112 for each group.

3.2 Model Specification

In this study, the researcher follows the approach of Musgrave (1999), Brown and Jackson (1996), and Bailey (2002) to introduce panel autoregressive distributed lag (ARDL) (q^*, $q_1,\ldots,q_k$). Thus:

$$y_{it} = \sum_{j=1}^{q^*} \alpha_{ij} y_{it-j} + \sum_{j=0}^{q} \rho_{ij} x_{it-j} + u_{it}; i = 1,\ldots,N; t = 1,\ldots,T \quad \text{,,,3.1}$$

$$u_{it} = a_i + z_i + w_{it} \quad \ldots 3.2$$

Where: y_{it} n x1 vector of dependent variable represented by GDP, x_{it} k x 1 vector of independent variables represented by government effectiveness (which captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.) and expenditure, ρ_{ij} k x 1 vector of parameters, α_{ij} are scalars, z_i specific error, and w_{it} common error. The constant has been subsumed in the disturbance term u_{it} and it is represented by a_i .

Since, my T (time dimension) is large enough; I fit the equation 3.1 for each group separately. However, all my variables of interest are I (1) confirmed by LLC, and as such the common error is presumed I(0). Therefore, equation 3.1 can be reparametrized using ECM under ARDL.

$$\Delta y_{it} = \lambda_i (y_{i,t-j} + \eta_i x_{it}) + \sum_{j=1}^{q^*-1} \alpha_{ij}^* \Delta y_{it-j} + \sum_{j=0}^{q-1} \rho_{ij}^* \Delta x_{it-j} + u_{it} \quad \ldots 3.3$$

Where:

$$\lambda_i = -(1 - \sum_j^{q^*} \alpha_{ij}); \eta_i = \sum_j^q \rho_{ij} / (1 - \sum_j^{q^*} \alpha_{ij}); \alpha_{ij}^* = -\sum_{m=j+1}^{q^*} \alpha_{ij} \text{ and } \rho_{ij}^* = \sum_{m=j+1}^{q} \rho_{ij}$$

Note that the parameter λ_i is the ECM, and must be significant and negative. If it is zero, it means there is no long run relationship. It must take value between 0 and -1.

Estimation Technique

Equation 3.2 is nonlinear in parameters; hence, Pesaran, Shin, and Smith (1999) developed a maximum likelihood method to estimate the parameters, which is expressed as follows.

$$like(\eta, \kappa, \sqrt{h}) = -0,5T \sum_{i=1}^{N} \log(2\pi h_i) + 0.5 \sum_{i=1}^{N} \frac{1}{h_i} (\Delta y_{it} - \lambda_i (y_{i,t-j} + \eta_i x_{it}))' H_i (\Delta y_{it} - \lambda_i (y_{i,t-j} + \eta_i x_{it}))$$

Where: $H_i = 1_T - w_i (w_i' w_i) w_i$ and $w_i = (\Delta y_{it-1}, ..., \Delta y_{it-q^*+1})(\Delta x_{it-1}, ..., \Delta x_{it-q+1})$. 1_T is identity matrix of rank T. We can now maximize equation 3.3 to obtain the values of the parameters. Therefore, the MG for the ECM terms λ_i is.

$$\bar{\lambda} = \frac{1}{N} \sum_{i=1}^{N} \lambda_i \quad \ldots .3.4$$

4. Result

The researcher conducted unit test /stationarity test using Levi, Lin and Chu (LLC) and Harris-Tzavalis methods. This test is conducted because the data are non-stationary panel data that cut across 7 countries and for 20 years in each of the subsample groups. The summary of the test results are presented in tables as follows.

Table 1: Unit Root Test Results

Upper-Middle Income Countries

Variable	LLC	HT
gr	-3.91(0.00)*	-8.72(0.00)*
eff	-2.47(0.00)*	-2.80(0.00)*
exd	0.51(0.69)	-1.83(0.03)**

Source: Authors' Computation

*Note that figures in brackets are the p-values, * and ** indicate significant at 1% and 5% respectively*

Table 1 provides the results of LLC and HT technique. The p-values in respect of economic growth rate (gr) and government effectiveness (eff) are less than alpha value at 0.01. In this regard, the null hypothesis that there is panel unit root is resoundingly rejected. This implies that the LLC and HT provide support against no stationarity of these variables. However, the p value of expenditure per GDP is greater than 0.05 for LLC test, but less than 0.05 for the HT test. Thus, by the HT test the three variables for the sample of upper middle income SSA countries are I(1) variables. The linear combination of them could be I(0) or cointegrating.

Table 2: Unit Root Test Results
Lower-Middle Income Countries

Variable	LLC	HT
gr	-0.03(0.49)	-6.23(0.00)*
eff	-3.02(0.00)*	-2.72(0.00)*
exd	-3.51(0.00)*	-2.60(0.00)*

Source: Authors' Computation

*Note that figures in brackets are the p-values, * indicates significant at 1% .*

The LLC test for economic growth rate (gr) shows that the null hypothesis that panel has a unit root is not rejected because the p value under this test and for this variable is asymptotically larger than the alpha value at 5 percent significant level or even at 10 percent level of significance. To reconfirm this the researcher conducted HT test, and the result shows very small p value (0.00). Signifying that gr is free from the presence of a unit root. Since the p values for eff and exd are respectively 0 percent under the LLC and HT tests, there is sufficient evidence to affirm that the variables are stationary at first difference. So therefore, by HT test the three variables are I(1) stationary for lower middle-income countries.

Table 3: Unit Root Test Results
Lower Income Countries

Variable	LLC	HT
gr	-3.27(0.00)*	-11.59(0.00)*
eff	-3.17(0.00)*	-2.10(0.02)**
exd	-1.50(0.07)***	-0.72(0.23)

Source: Authors' Computation

*Note that figures in brackets are the p-values, *, ** and *** indicate significant at 1%, 5% and 10% respectively*

As shown in the table, the p values of LLC test for gr, eff and exd are 0.00, 0.00 and 0.07 respectively. The null hypothesis is rejected at 1 percent for gr and eff; and at 10 percent for exd. HT test provides evidence of rejection for gr at 1 percent and eff at 5 percent. However, the HT test does not reject the null hypothesis for exd. We have a complementary evidence to confirm that gr and eff are first difference stationary for low income countries; but only LLC supports that exd has no unit root for this group of countries. Have satisfied that these variables are I(1) stationary either by LLC or HT test, the researcher proceeds to test the hypotheses of this study using Mean Group (MG) and Pooled Mean Group (PMG) estimation techniques. To iterate, the hypotheses for this study, which are: 1 government effectiveness does not have positive impact on economic growth: 2 expenditure per unit of output does not influence economic growth positively, 3 economic growth does not response to temporal shocks or changes in effectiveness and expenditure per unit. All these hypotheses are tested for upper middle income, lower middle income and low income countries.

Table 4: PMG-Regression Results

Upper Middle Income Countries-Homogeneity Assumption

Regressor	Coeff	Std-error	Z-stat	P-value
Long Run (LR):				
eff	1.449599	3.462241	0.42	0.675
exd	-0.17098	0.1168421	-1.46	0.143
Short Run (SR)				
ecm	-0.6998884	0.0997043	-7.02	0.000
d.eff	3.405779	3.240941	1.05	0.293
d.exd	-0.2793917	0.197454	-1.41	0.157
cons	5.683531	0.9802588	5.80	0.000

Source: Authors' Computation

Note that parameter homogeneity is assumed here and hypotheses are tested under this assumption

The long run coefficients based on PMG method for effectiveness and expenditure per unit of output are 1.45 and -0.17 respectively; while the short run coefficients are 3.41 for effectiveness, and -0.28 for expenditure per unit of output. This implies that government effectiveness has positive long run and short run impacts on economic growth rate for upper middle income countries. To the contrary, expenditure-output ratio maintains inverse relationship with economic growth. Therefore, increasing this ratio leads to decrease in growth both in the long run and short run dynamics for the upper middle income countries. The ECM coefficient is negative (-0.70 approximately) and significantly different from 0; meaning that economic growth in middle income countries responds to temporal shocks or changes in government effectiveness and expenditure per unit of output or alternatively long run dynamic influence run from government effectiveness and expenditure-output ratio to economic growth in the upper middle income countries of the SSA. The researcher confirms these results using the MG method as shown in table 5 below.

Table 5:MG-Regression Results

Upper Middle Income Countries-Homogeneity Assumption

Regressor	Coeff	Std-error	Z-stat	P-value
Long Run (LR):				
eff	-12.91016	7.522681	-1.72	0.086
exd	0.2187924	0.2306591	0.95	0.343
Short Run (SR):				
ECM	-0.8592392	0.0454234	-18.92	0.000

d.eff	-2.135477	5.350995	-0.40	0.690
d. exd	-0.1623327	0.2536022	-0.64	0.522
cons	-5.51669	8.292416	-0.67	0.506

Source: Authors' Computation

Note that parameter homogeneity is assumed here and hypotheses are tested under this assumption

As shown in the table above, the ECM coefficient is negative and significant confirming the position by the PMG method. However, a contradiction is observed between the PMG and MG. According to the PMG test, effectiveness has positive coefficients both in the long run and short run, but MG test reveals negative in the long run and short run. This implies that MG test shows that effectiveness is a negative determinant of economic growth, thereby contradicting the positive influence reported by the PMG. Furthermore, the PMG results reveal that expenditure-output ratio has negative influences in the long run and short run; while MG shows that expenditure-output ratio maintains positive influence in the long run but negative influence in the short run. In order to know which of these models is more appropriate, the researcher employs Hausman method to conduct a post estimation test. The results are shown below.

Table 6: MG vs PGM

Upper Middle Income Countries

Test	Stat	P-value
Chi-sq	4.04	0.13

Source: Authors' Computation

The MG estimation technique is tested against the PMG under the null hypothesis that the difference in coefficient is not systematic, literally meaning that the MG is not parsimonious (in other word adequate) more than the PMG. As shown in table 6 x^2 statistic (4.04) associates with 0.13 probability. Therefore, the preferred estimator is PMG or the PMG is more efficient than the MG. The results yielded by PMG are more adequate than those provided by the MG.

The table reveals that the long run coefficient of effectiveness is 6.28 significant at 1 percent;

Also, Table 7: MG-Regression Results

Lower Middle Income Countries-Homogeneity Assumption

Regressor	Coeff	Std-error	Z-stat	P-value
Long Run (LR):				
eff	6.279919	1.359036	4.62	0.000
exd	0.581164	0.0795576	7.30	0.000
Short Run (SR):				
ECM	-0.5089711	0.1897241	-2.68	0.007
d.eff	1.417247	1.77642	0.80	0.425

d.exd	-0.1061267	0.1654738	-0.64
0.521			
cons	-1.05781	1.096212	-0.96
0.335			

Source: Authors' Computation

Note that parameter homogeneity is assumed here and hypotheses are tested under this assumption

The short run coefficient 1.42 is significant at 1 percent. This overtly suggests that the effectiveness of the lower middle-income countries of SSA has positive impact on their economic growth in the short run and long run dynamics. The only caveat is that the influence is stronger in the long run than in the short run. Conversely, the short run coefficient of expenditure per output is -0.11 and in the long run the coefficient is 0.58. This denotes that expenditure per unit influences economic growth of this region negatively in the short run but positively in the long run. The ECM coefficient -0.51 is significant at 1 percent. Implying that economic growth respond to temporal changes in effectiveness and expenditure per unit of output. To reiterate here the ECM for the upper middle-income countries by PMG test is approximately -0.70. This is an evidence that the economic growth of the upper middle income countries responds faster to temporal changes in effectiveness and expenditure per unit of output than the response of the economic growth of the lower middle income countries. I aptly confirm these results with the outputs of the MG technique.

Table 8:MG-Regression Results

Lower Middle Income Countries-Homogeneity Assumption

Regressor	Coeff	Std-error	Z-stat	P-value
Long Run (LR):				
eff	3.093343	3.427045	0.90	0.367
exd	0.1496589	0.3530676	0.42	0.672
Short Run (SR):				
ECM	-0.7640325	0.1334717	-5.72	0.000
d.eff	1.500732	1.905143	0.79	0.431
d.exd	-0.1739933	0.1830238	-0.95	0.342
cons	1.487161	2.632315	0.56	0.572

Source: Authors' Computation

Note that parameter homogeneity is assumed here and hypotheses are tested under this assumption

The ECM coefficient is negative and significant confirming the position of significant response of economic growth rate to temporal changes in effectiveness and expenditure-output ratio. So also, effectiveness coefficients are positive both in the short run and long run dynamics; coefficient of expenditure per unit of output is positive in the long run but negative in the short run, which is in consonant with the earlier results. Thus, the result of the MG is relatively in line with the PMG; however, the MG is still tested against the PMG.

Table 9:MG vs PGM

Lower Middle Income Countries

Test	Stat	P-value

Chi-sq	1.14	0.57

Source: Authors' Computation

The x^2 p value is 57 percent. In view of this, the null hypothesis that difference in coefficient is not systematic cannot be rejected. This simply implies that the PMG is more efficient than the MG. Finally, I also test the underlying hypotheses of this study for low income countries, and the results are presented as follows.

Table 10: PMG-Regression Results

Low Income Countries-Homogeneity Assumption

Regressor	Coeff	Std-error	Z-stat	P-value
Long Run (LR):				
eff	-1.519964	1.179829	-1.29	0.198
exd	0.081019	0.1105556	0.73	0.464
Short Run (SR):				
ECM	-1.023052	0.0801565	-12.76	0.000
d.eff	0.90507	1.707637	0.53	0.596
d.exd	0.1207955	0.2631402	0.46	0.646
cons	2.390046	1.006188	2.38	0.018

Source: Authors' Computation

Note that parameter homogeneity is assumed here and hypotheses are tested under this assumption

Table 10 shows that the long run coefficient of effectiveness is -1.52 and its short run coefficient is 0.91. This simply means that government effectiveness has positive impact on the economic growth of SSA low-income countries; but in the long run effectiveness influences growth inversely. Expenditure per unit of output has positive coefficients in both the short run and long run. This is an evidence that expenditure-output ratio is a positive determinant of economic growth of SSA low income countries. Therefore, increasing the ratio leads to a rise in growth for the sample of low income economies of the SSA. The ECM coefficient is negative and significant. The implication of this is that economic growth responds to changes in effectiveness and expenditure-output ratio. Thus, a long run relationship exists between economic growth, effectiveness and public expenditure per unit of GDP. Alternatively, long run influence runs from effectiveness and expenditure per unit of output to economic growth in low income countries. These results are confirmed by the MG technique as shown in table11.

Table11: MG-Regression Results

Low Income Countries-Homogeneity Assumption

Regressor	Coeff	Std-error	Z-stat	P-value
Long Run (LR):				
eff	15.76694	14.26564	1.11	0.269
exd	0.2280675	0.1270752	1.79	0.073
Short Run (SR)				
ECM	-1.069088	0.0924397	-11.57	0.000
d.eff	10.13962	8.729804	1.16	0.245
d.exd	0.0685515	0.345352	0.20	0.843

cons	16.78165	15.28658	1.10	0.272

Source: Authors' Computation

Note that parameter homogeneity is assumed here and hypotheses are tested under this assumption

From the table above, effectiveness still have positive short run impact on economic growth. Nevertheless, in the long run the impact is inverse contracting the result of the PMG technique. The MG result shows that expenditure per unit of output has positive impact on growth both in the short run and in long run. This is in line with the result of the PMG in table 4.14. Like, the PMG, the ECM coefficient is negative and significant; strongly confirming that economic growth responds to temporal changes in government effectiveness and expenditure-output ratio. The post estimation test result is reported in table 12below.

Table 12:MG vs PGM

Lower Middle Income Countries

Test	Stat	P-value
Chi-sq	136.33	0.00

Since the probability value is less than the alpha value at 1 percent, I have sufficient evidence to reject the null hypothesis that the difference in coefficient not systematic. Therefore, the MG estimator is preferred to the PMG.

5. Conclusion

It is a stylized fact that economic growth has a theoretical dynamic relationship with government effectiveness and expenditure, which is empirically confirmed in this study. In this regard, the researcher concludes that effectiveness has negative and insignificant impact on economic growth in the short run for upper middle income economies; as confirmed in the studies of Gemmell, Kneller and Sanz (2015),Abu and Abdullah (2010). Conversely, positive/insignificant impact in the short run for lower middle income and low income countries (Olugbenga & Owoeye (2007); Obasikene, 2017). In the long run, effectiveness influences economic growth negatively for high middle income and low income countries, but positively impacts economic growth of lower middle income economies. Thus, effectiveness of SSA countries has no resoundingly significant impact on their economic growth. The researcher has sufficient evidences based on PMG to conclude that dynamic negative short run influence runs from public expenditure to economic growth of both high middle income and lower middle-income countries. On the contrary, the influence is positive for the low-income countries. In the long, expenditure has inverse causation on the economic growth of high middle-income countries, while the influence is positive for lower middle income and low-income countries. Advisably, expenditure is an impetus of growth in low-income economies but detrimental for high middle-income countries' economic progress. Thus, Peacock and Wiseman hypothesis is only empirically valid for low-income countries in both the short run and long run. Economic growth responds faster to temporal changes in effectiveness and public expenditure for high middle-income countries than low middle-income countries. Short run shocks are quickly reposition faster for high middle- income countries than low-income economies. We therefore recommend that the government of upper middle-income countries and lower middle income countries should decrease their recurrent expenditure or initiate expenditure switching policy swamping in favor of capital goods. The implication of this policy is that the demand side of the capital good increases spontaneously, ultimately leading to economic advancement. Furthermore, expenditure

switching policy is primarily designed to reduce domestic prices, and such it is a stabilizing force. In addition, the government of each set of these countries should have conscious determination to increase their effectiveness (which is a reflection of the quality of public services) through policy adjustments that could reduce corruption, mismanagement or misappropriation of collective resources. Government should be open, transparent and fiscally disciplined in their uses of public funds. Accountability should be a celebrated norm, and lack of it should be loathe fully sanctioned. That is, as a matter of compulsion, government of these countries should covert their recurrent expenditure on conspicuous consumption to capital assets, to expedite their economic progress. In addition, the government of each set of these countries should be determined to increase their effectiveness through policy adjustments that could reduce corruption, mismanagement or misappropriation of collective resources. Government should be open, transparent and fiscally disciplined in their uses of public funds. Accountability should be a celebrated norm, and lack of it should be loathe fully sanctioned.

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FOREIGN EXCHANGE MARKET INTERVENTION IN AN EMERGING ECONOMY: EVIDENCE FROM ASEAN-5 FOREIGN EXCHANGE MARKETS.

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Abstract

This paper investigates foreign exchange market intervention in an emerging market through the behavior of currency order flow, with evidence from ASEAN-5 foreign exchange markets. The study constructs a measure of currency order flow in the ASEAN-5 foreign exchange markets context to reflect the pressure of currency excess demand for the period, 2010 to 2015. It also adopts some market intervention success criteria and OLS approach to explore market intervention and the extent to which this policy tool is effective. The findings show that market intervention is effective in influencing both the exchange rate and currency order flow, as the presence of monetary authorities affect the correlation between exchange rate and currency order flow. More so, the monetary authorities mostly intervene to smooth the foreign exchange market, which is more of "leaning against the wind" but unable to reverse the trend. It shows that, the exchange rates of ASEAN-5 countries are sensitive to central bank intervention. However, the study suggests that the central bank intervention will only become effective if the country has a sound monetary policy and fiscal policy respectively.

Keywords: *ASEAN-5, Currency Order Flow, Exchange Rates, Foreign Exchange Market Intervention*

1 INTRODUCTION

Market intervention is a policy tool used by most central banks to influence the future direction of their domestic exchange rate against other foreign currencies (Dominguez, 2003). This may be refer to official buying and selling of foreign currencies for influencing exchange rates. The decision by the central bank to intervene in the foreign exchange market will be influenced by the reaction of the exchange rate to its trades. Evidently, it is an essential policy instrument used to influence the foreign exchange market by the monetary authorities. Apart from the decision of when and how to intervene, monetary authorities have varied goals for their market intervention operations. According to Dominguez (2003), there are four basic reasons for foreign exchange market interventions: (i) to influence trend movements in exchange rates (ii) calm disorderly markets (iii) rebalance foreign exchange reserve holdings (iv) and to support fellow central banks in their exchange rate operations.

However, the monetary authorities may wish to conceal their market intervention operations, as market intervention is designed to counter large deviations of exchange rate from the central bank's target (leaning-against-the-wind strategy), and sometimes to calm disorderly markets (Ito and Yabu, 2007). Although, monetary authorities may adopt different intervention strategies; however, they have to decide whether to intervene secretly or publicly.

In the recent past, the dwindling foreign exchange reserves, subsequent depreciation of currency and consequent market intervention in the foreign exchange market of ASEAN-5 (Indonesia, Malaysia, Philippines, Singapore and Thailand) countries have posed a great challenge on their exchange rate policy (ADB, 2012; 2015; BIS, 2015). It may not be because of monetary policy failure in most cases or ineffective fiscal policy as it may. However, this may be due to inadequate attention of the monetary authorities to one of the major

microeconomic variables (currency order flow) on the important role it plays in the determination of exchange rate in the foreign exchange markets (Cerrato, M., Sarantis, N., and Saunders, A., 2011). Currency order flow is defined as the net of the buyer-initiated and seller-initiated orders in the foreign exchange market (Evans and Lyons, 2002a). Thus, currency order flow corresponds largely to what practitioners might refer to as buying or selling pressure (Evans and Lyons, 2007).

Likewise, currency depreciation may force the central bank to sell foreign exchange reserves (market intervention) in order to prevent further depreciation. Market intervention is a policy tool used by most central banks to influence the future direction of their domestic exchange rate against other foreign currencies. However, there are consequences when market intervention is prolonged, as the monetary objectives may be undermined, the financial stability may be compromised and heavy financing costs may be imposed on the monetary authority (Basu and Varoudakis, 2013). In addition, market intervention usually weakens the domestic macroeconomic performance due to high inflation, financial system distortions, and exchange rate misalignment costs (Adler and Tovar, 2011). Hence, foreign exchange market intervention has direct consequences for the stance of monetary policy, which is a major cause for policy dilemma. However, at some stage, the depleting foreign exchange reserves will inevitably make interest rate to increase, as the exchange rate and the monetary authority cannot indefinitely control the money market rate (Mundell, 1968). Thus, the likely consequences of foreign exchange market intervention and its effects on the monetary policy objectives may be severe. In addition, currency depreciation may force the monetary authority to sell foreign exchange reserves, and this may lead to currency crisis due to speculative attack. When the monetary authority intervenes to prevent currency depreciation, the limit is often set by the national reserves as well as the contingency credit policies available to such a country. Therefore, at some stage, the depleting reserves will inevitably force interest rate to increase, "the impossible trinity"[1] (Mundell, 1968). Thus, it is essential for the monetary authority to carefully weigh the consequences of foreign exchange policy and its effects on the monetary policy objectives. By this act, high inflation rate, financial system distortions, and exchange rate misalignment costs can be greatly controlled. Some findings on central bank market intervention show that the behavior of exchange rate on intervention days and non-intervention days cannot be statistically distinguished. While some findings indicate that the correlation between currency order flows and exchange rate changes disappear on intervention days, and that central bank market intervention strongly affect the level of exchange rate in the desired direction (Chaboud and Humpage, 2005; Fatum and Hutchinson, 2006; Menkhoff, 2010; Newman, V., Potter, C., and Wright, M., 2011; Marsh, 2011).

Like many other monetary authorities, ASEAN-5 countries monetary authorities have enfolded their foreign exchange market intervention in secrecy. The study collect newswires reports on market intervention from one of the world's biggest news databases; Bloomberg. To estimate monetary authorities' market intervention, the research study also gathers information from the construct of currency order flow measurement and exchange rate. And, based on high frequency data, the paper adopts some market intervention success criteria and ordinary least square (OLS) approach to explore market intervention and the extent to which this policy tool is effective. Hence, it presents a rich context for this study, which aims at a better understanding of foreign exchange market intervention and the effectiveness of this policy tool in ASEAN-5 countries.

[1] "Impossible trinity": the exchange rate and money market rate cannot be indefinitely controlled by the monetary authority.

The results shows that market intervention is effective in influencing both the exchange rate and currency order flow, as the presence of the monetary authorities in the foreign exchange markets affect the correlation between exchange rate and currency order flow. In addition, the monetary authorities mostly intervene to smooth the foreign exchange market, which is more of "*leaning against the wind"* but unable to reverse the trend. Therefore, this shows that the exchange rates of ASEAN-5 countries are sensitive to central bank intervention. However, the study suggests that without a sound monetary and fiscal policy, using market intervention to stabilize exchange rate may not work in the long-run. This research article is structured as follows: the second section reviews literature. Third section discusses the data and methodology. Fourth section presents the empirical results and fifth section provides the conclusion.

Economic Growth of ASEAN-5 Countries in Brief

The rapid economic growth of the Association of Southeast Asian Nations (ASEAN) has allowed it to increase its influence in the development of Asia and become one of the important economic associations in the world. ASEAN consists of 10 member states: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. Bilateral trade between the world major four economies (USA, EU, Japan and China) and ASEAN has grown over the last two decades from US$7 billion in 1990 to US$400 billion in 2012 (Asian Development Bank,2012). Invariably, ASEAN economies contribute over 24% of total trade in 2014 with the trade partner countries, including China, EU-28, Japan and USA. (IMF-World Economic Outlook 2015). In addition, between 2012 and 2014, the total Foreign Direct Investment (FDI) inflow to ASEAN is almost US$370 billion from the eleven selected partner countries including EU-28 (15.7%), Japan (15.3%), USA (8.8%) and China (5.8%) (IMF-world Economic Outlook 2015). The Gross Domestic Product (GDP) of ASEAN has grown from US$ 1.5 trillion in 2009 to over US$ 2.5 trillion in 2014 (IMF-World Economic Outlook 2015). However, among the high performing economies in the region are the five founding members of ASEAN[2] (known as ASEAN-5). ASEAN-5 economies contribute 86.96% and 85.4% to the total trade in 2013 and 2014 with the major four trading partner countries. The group accounted for almost 90% of the total value of FDI inflow to ASEAN between the period 2012 and 2014. In addition, these five countries account for over 80% of the Gross Domestic Product (GDP) within ASEAN between 2009 and 2014.

Macroeconomic interdependence within the group has become stronger, as evidenced by a simultaneous contraction of economic activity throughout ASEAN-5 in 2005 and a simultaneous expansion in 2006 and 2007, respectively. The diverse economic relationship with the US, Japan, China and EU, this group economies should be able to achieve a reasonable degree of exchange rate stability. Unfortunately, these economies have experienced a continuous reduction in their foreign exchange reserves, which also led to currency depreciation in the international market, especially against the US dollar. For example, the foreign exchange reserves in Indonesia decreased to US$100.24b in November 2015 from US$112.78b in 2012. While in Malaysia, it decreased to US$94.6b in November 2015 from US$139.66b in 2012. In the Philippines, it decreased to US$80.26b in August 2015 from US$83.83b in 2012. In Singapore, it decreased to US$247.1b in October 2015 from US$259.31b in 2012. Thailand experienced the same scenario; it decreased to US$154.84b in August 2015 from US$181.61b in 2012.

The dwindling foreign exchange reserves position of these countries has led to the depreciation of their currencies against other major international currencies, especially against the US dollar. For example, between year 2010 and 2015, Indonesian Rupiah

[2] ASEAN-5: Indonesia, Malaysia, Philippines, Singapore and Thailand

depreciates against USD (39.24%), while Malaysian Ringgit, Philippine Peso, Singapore Dollar and Thai Baht, also depreciated against USD; 30.8%, 6.4%, 7.8%, and 16.6% respectively.

The exchange rate depreciation in ASEAN-5 countries' economies have raised the question of whether the monetary authorities in these countries should act pre-emptively against these rising trends of the depreciation of their currencies, especially against the US dollar. The monetary policy of these five countries is not only important to their economic development, but also increasingly important to the world (ADB, 2015). The successful transition of these five emerging markets to a developed status is important, both to the world and as a model for the other emerging economies (ADB, 2015).

2 LITERATURE REVIEW

Market intervention is a policy tool used by most central banks to influence the future direction of their domestic exchange rate against other foreign currencies (Dominguez, 2003). This may be refer to official buying and selling of foreign currencies for influencing exchange rates. The decision by the central bank to intervene in the foreign exchange market will be influenced by the reaction of the exchange rate to its trades. Evidently, it is an essential policy instrument used to influence the foreign exchange market by the monetary authorities. Apart from the decision of when and how to intervene, monetary authorities have varied goals for their market intervention operations. Chang, Suardi and Chang (2017) examined the impact of market interventions on exchange rates during the period of reserves accumulation and the global financial crisis, thereby concentrating on the Asian central banks. Using daily exchange rate data and Reuters news wire reports as a proxy for central bank interventions under four classifications (firm, suspected, supported and neutral), thereby focusing on eight economies in Asia: India, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand, for the period 2005 to 2013. The results show that leaning-against-the-wind intervention strategies are effective in all the eight Asian countries during the period of investigation, and that coordinated interventions significantly improve the odds of effective intervention. In addition, that these Asia central banks intervene in the market to smooth the trend of exchange rates as well as to calm disorderly market (Menkhoff et al., 2017; Oliver and Ranciere, 2011; Paolo, 2016; Fatum and Yamamoto, 2014). Though market intervention by the central banks may impede the direction as well as levels of exchange rate movements, however short-term solution to the problem of volatile capital flows is provided (Humpage, 2013; Farnadez et al., 2015). Fratzscher, M; Gloede, O; Menkhoff, L; Sarno, L; and Stöhr,T., (2017) examine foreign exchange market intervention, using confidential daily data on foreign exchange market intervention, the paper make a broad assessment of intervention effectiveness for 33 central banks for the period, 1995 to 2011. The findings show that intervention is widely used, and is an effective policy tool with a success rate in excess of 80 percent under some criteria. For the countries with narrow band regimes, the policy works well in smoothing and stabilizing exchange rates.

The effectiveness of market intervention as a policy is highly controversial (BIS, 2013a). The paper presents the criteria by focusing on the most immediate success to that focusing on longer-term oriented success. That is "Event criterion", "direction criterion", "smoothing criterion" and "stabilization criterion".

Foreign exchange market intervention seems to be a contentious policy tool for lack of evidence from the literature that it moves exchange rates in the intended direction. The argument is that the largest financial market in the world by volume is foreign exchange market, and in terms of trading volume in the foreign exchange market, the central banks have become gradually insignificant players (BIS, 2013b). In addition, fundamental news is quickly integrated by the foreign exchange markets, and they are connected to fundamentals in the long-run (Engel et al., 2008; Chen, 2011), which induces the inquiry to what central banks be able to communicate beyond available knowledge. However, contrary to this view,

around the world, central banks believe in the usefulness of foreign exchange market intervention as suggested by survey evidence (Neely, 2008; 2011). Likewise, non-secret foreign exchange market intervention is more effective, especially if accompanied by oral intervention. Ghosh, A.R; Ostry, J.D and Chamon, M., (2016) examine the case for using two instruments: the policy interest rate and sterilized foreign exchange market intervention in emerging market countries to stabilize inflation and output while reducing disequilibrium currency fluctuations. The paper examines the conditions under which inflation targeting is better than discretionary monetary policy, and whether emerging market economies central banks, who are inflation- targeting countries, should intervene in the foreign exchange markets.

In the emerging markets, the monetary authorities lack full policy credibility for achieving success concerning price stability for a long period. In order to avoid potential conflict between price stability and exchange rate objectives, inflation- targeting countries have adopted floating exchange rate regimes. In addition, stabilizing exchange rate around equilibrium value is not conflicting with attaining inflation target, once the central banks have sterilized intervention as a sustainable instrument. Meanwhile, complementing inflation targeting foreign exchange market intervention may improve the plausibility of the central bank's inflation target, as the central banks comes under pressure to react when the exchange rate deviates from intermediate fundamentals.

Daude, C; Levy Yeyati, E and Nagengast, A., (2016) analyze the effectiveness of exchange rate interventions for a panel of 18 emerging market economies for the period, 2003-2011. Using an error correction model approach, the findings indicate that on average, foreign exchange market intervention is effective in moving the real exchange rate in the desired direction. The results show that exchange rate interventions in the emerging markets are mainly effective, as market intervention move the real exchange rate in the desired direction.

In addition, the findings show that market interventions are likely to be more effective when the real exchange rate reveals substantial deviations from its long-run equilibrium position. The paper presents evidence that supports the view that in the short-run central bank market intervention can influence the exchange rate (Dominguez, K; Fatum, R and Vacek, P., 2013; Fatum, 2015). Although in the literature this has received partial confirmation, but among the market practitioners, it is widely an accepted view. In addition, the paper finds preliminary evidence that is consistent with both the portfolio and signaling channel (Blanchard et al., 2015; Adler et al., 2015; Levy-Yeyati et al., 2013; Benjamin et al., 2014; Eichengreen, 2013).

Berganza and Broto (2012) analyze empirically the link between exchange rate volatility, inflation targets and foreign exchange market interventions in the emerging economies. The paper is based on the theoretical conditions of "strict inflation targeting", implying a full flexible exchange rate, or operating a "flexible inflation targeting", requiring a managed-floating exchange rate with foreign exchange market interventions to moderate exchange rate volatility. Using a panel data model for 37 countries, the paper evidence that though inflation targeting leads to instability exchange rate than alternative regimes, market interventions in several inflation targeting countries have been more effective in lowering volatility than in non-inflation targeting countries. In addition, the results show that foreign exchange market interventions in inflation targeting countries do play an important role in controlling the exchange rate volatility. Hence, "flexible inflation targeting" regimes sustainability are not only feasible, but also foreign exchange market interventions executed under this scheme are much more effective than those of non-inflation targeting countries in curbing excessive volatility.

Foreign exchange market intervention have to be detected by the market participants for it to be effective, as market intervention works by influencing market participants expectations on the future value of exchange rates (Sarno and Taylor, 2001). Intervention by the monetary authority be it public or secret, is most likely to affect exchange rate in the short-run, because it conveys private information to affect market parameters (Chaboud and Humpage, 2005).

Indeed, the impact of market intervention can be significantly influenced by so many factors, amongst which are: exchange rate regime in place; policy action history; foreign exchange market intensity and sophistication, and regulatory controls (Disyatat and Galati 2007). In addition, market intervention may affect the exchange rate by reference to three channels of influence of market intervention operations. The channels include the portfolio balance channel, the signaling channel and the microstructure channel (Pasquariello, 2010).

The portfolio balance channel point of view is that investors are risk averse, therefore, in their portfolio of investment, domestic and foreign bonds are imperfect substitute for each other. Hence, conveying policy intentions via market intervention to the foreign exchange market may influence exchange rates. Meanwhile, the signaling channel can be effective in influencing exchange rate only if market participants adjust their expectations in the foreign exchange markets (Edison, 1993). Furthermore, in line with the market microstructure, the extent to which information embedded in the monetary authority market intervention (with the existence of superior information advantage assumption) reaching the market participants will affect their expectations, and subsequently influence the spot exchange rates (Adler and Tovar, 2011). Likewise, empirical evidence shows that monetary authority market intervention may affect the exchange rate, through the microstructure of the markets where they are traded (Evans and Lyons, 2005; Pasquariello, 2007). However, the extent to which the portfolio balance channel, the signaling channel and the microstructure channel operate in practice still an issue yet to be resolved in the literature.

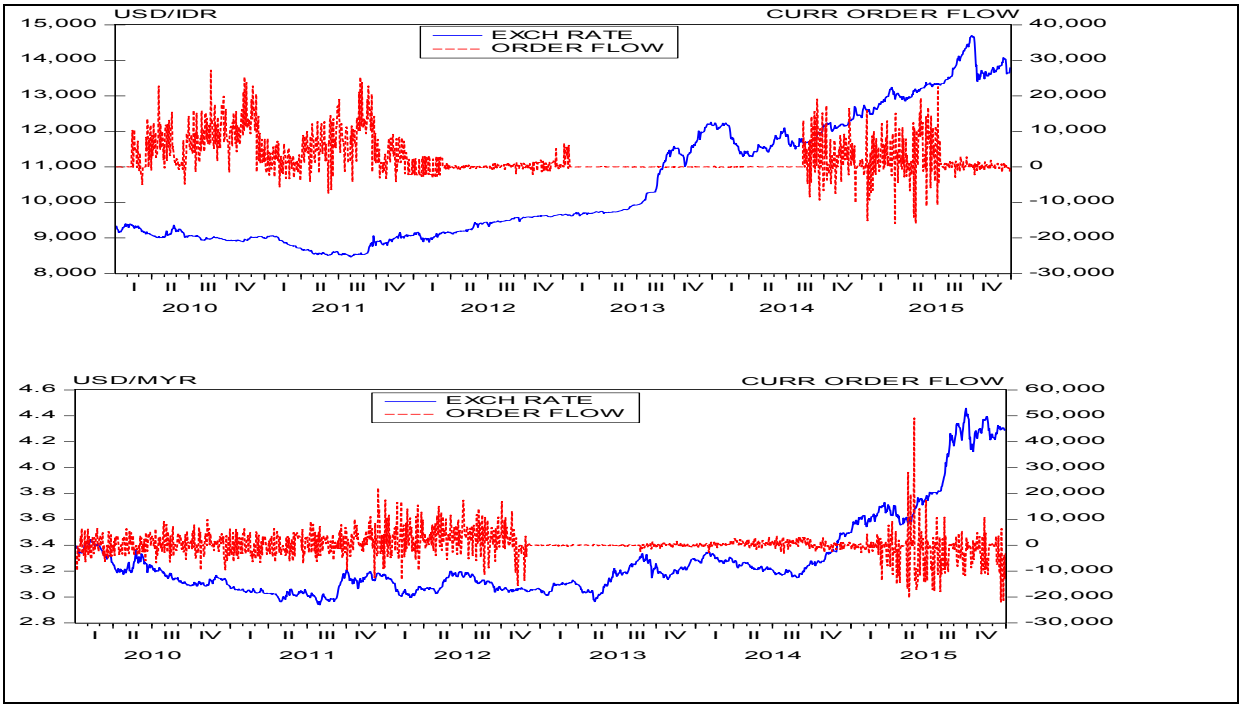
Intervention in the foreign exchange markets by the monetary authorities do vary, as it cut across a number of dimensions. Krugman (1991) asserts that the future expectations of the monetary authority and its actions are sufficient to influence exchange rates. That is, if exchange rate can be unambiguously defined by the central banks, it is most likely to influence exchange rate behavior in such a way that exchange rates remain within the set bands, even without any form of intervention by the central bank. Furthermore, Basu and Varoudakis (2013) and Basu (2012) reveal that only if central bank can adopt a "schedule" intervention strategy, then, it is possible to avoid foreign reserve accumulation, which may eventually lead to buying or selling of foreign currency to curb excessive volatility, as a result of appreciation or depreciation of local currency beyond the specified levels. In addition, Fatum and King (2005) show that there is no significant evidence expresses that rule-base policies are less important and ineffective than discretionary intervention. Adler and Tovar (2011) find that for foreign exchange market intervention to be effective, the most important things are – capital account degree of openness, and whether the country's exchange rate is overvalued, not necessarily rules and discretion. Although countries under a managed floating regime mostly adjust their domestic currency value through central bank intervention in order to maintain desired currency value during crisis period, notwithstanding, to stabilize currency value at all time, central bank market intervention may not be sufficient (Zainudin and Phooi M'ng 2014). Therefore, focusing on the exchange rate volatility and market intervention by the policy makers may not lead to currency stability in the long-run, rather, the target of the monetary authority should be on how to improve international trades and economic development (Aftab et al., 2016).

Furthermore, there are diverse stances on the effectiveness of foreign exchange market intervention. Bank of International Settlements (BIS, 2015) survey conducted on central banks, results show that almost 70% of the central banks that participated believed that their market interventions were successful during the period 2005-2012. Similarly, majority of the central banks included in BIS (2005) survey view market intervention to be an effective instrument to allay disorderly foreign exchange markets, adjust exchange rate misalignment and stabilize exchange rates. Menkhoff's (2010) empirical analysis results show that monetary authority foreign exchange market intervention strongly affect the level of

exchange rate in the desired direction. Adler and Tovar (2011) maintain that market intervention is strongly effective in terms decelerating the speed of exchange rate appreciation, especially, with limited capital account openness. In addition, Newman et al. (2011) find that the effect of market intervention on the exchange rate is momentary when the foreign exchange market is deep and liquid.

In addition, Fatum and Hutchinson (2006) employ an event study approach to examine the effectiveness of market intervention by the monetary authority, and the results show that market intervention is effective in the short-term. However, Chaboud and Humpage (2005) show that the behavior of exchange rate on intervention days and non-intervention days cannot be statistically distinguished. More so, Marsh (2011) provide some evidence that the trading activities in the net order flows of corporate customers are in consistent with the possible intentions of the Japanese monetary authority when it intervened in the market. In addition, the correlation between order flows and exchange rate changes disappear on intervention days. By implication, the presence of monetary authority in the foreign exchange market affects the relationship between order flow and exchange rates.

In order to confirm the flexibility, volatility and subsequent depreciation of ASEAN-5 countries' currencies exchange rates against the US dollar, Figure 1 presents and show the correlation between the USD/IDR; USD/MYR; USD/PHP; USD/SGD; USD/THB and currency order flow for the countries in the sample. However, currency order flows are constant between January 2012 and September 2014 in Indonesia foreign exchange markets and constant between January 2013 and July 2015 in Malaysia foreign exchange market. In the Philippines foreign exchange market, currency order flows are constant between January 2011 and July 2013: September 2013 and July 2015 respectively. In the Singapore foreign exchange market, currency order flows are constant between January 2010 and July 2013. Likewise, between January 2012 and July 2013; September 2013 and July 2015, currency order flows are constant in the Thailand foreign exchange markets.



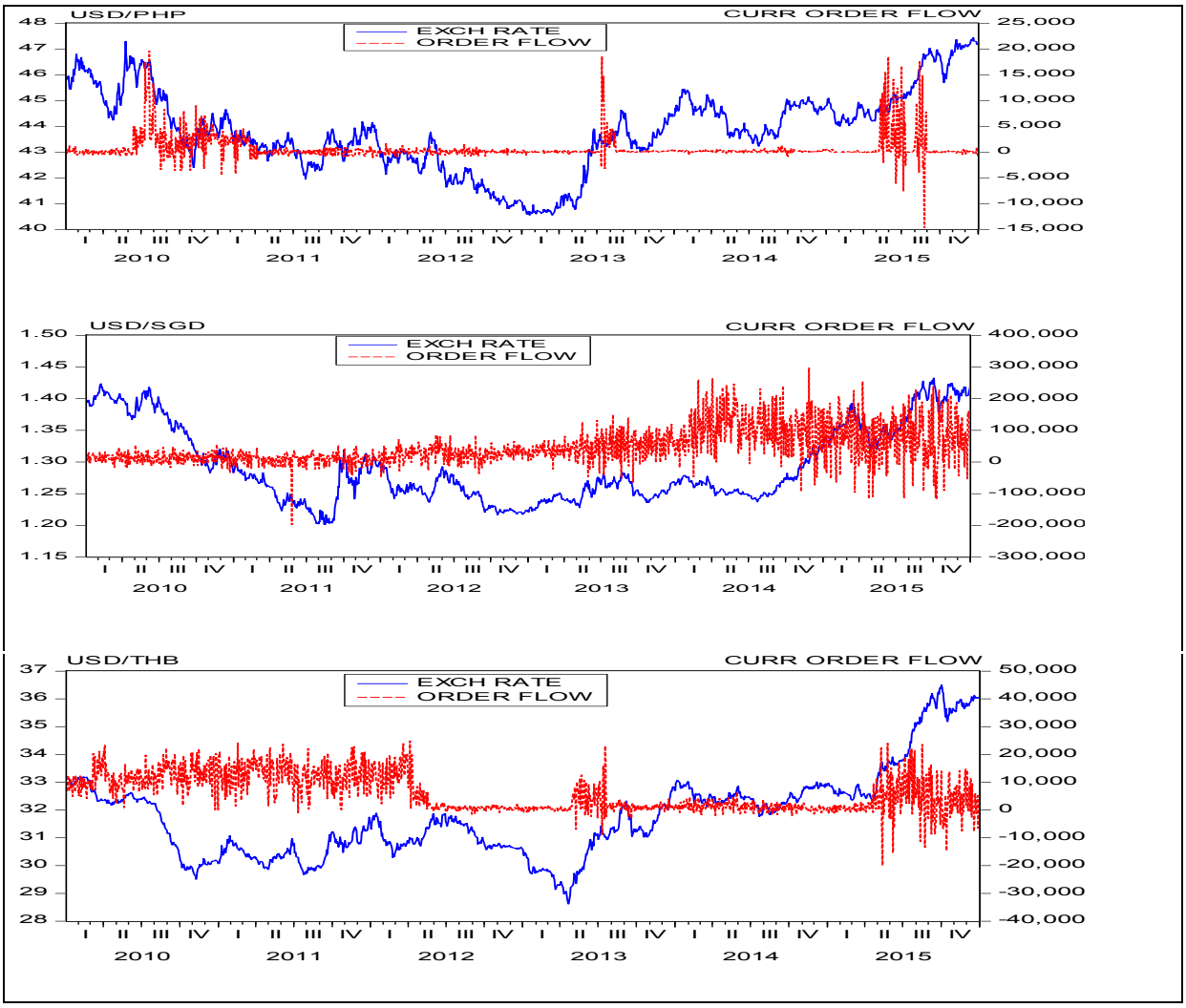


Figure 1: Exchange Rate of USD/IDR; MYR; PHP; SGD; THB and Currency Order Flow (04/01/2010 – 31/12/2015)

Although, majority of the emerging economies do not operate free floating rather managed floating exchange rate regime, and this may lead to frequent occurrence of market intervention by the monetary authorities. This is done mostly to maintain and sustain orderly market conditions, and to prevent excessive volatility in the value of their currencies against the currencies of their major trading partners, especially the US dollar. The results show that the monetary authorities of these countries consistently intervene to curtail the depreciation of their domestic currencies against the US dollar during these periods. Therefore, this may be one of the major reasons for the currency order flows to remain constant for some periods under consideration.

3 DATA AND METHODOLOGY

The main reason(s) for initiating market intervention in the foreign exchange markets by the monetary authority may not be ascertained. Hence, it is empirically difficult to measure the success (or otherwise) of monetary authority market intervention using one particular criterion. Therefore, this paper adopts five out of nine criteria as applicable to emerging market studies, *Reducing the net currency order flow out of dollar; Reversing the direction of the net currency order flow; Accentuating the net currency order flow; Moderating the net currency order flow* and *General success criterion for net currency order flows* as proposed by Marsh (2011) for the purpose of assessing the success (or otherwise) of ASEAN-5 countries' foreign exchange market intervention.

Data sets

This covers the period of six 6 years, from January 4, 2010 to December 31, 2015 for a total observation of 1564 trading days for all the countries in the sample with the exception of Malaysia with 1497 trading days. This thesis uses this full period in the analysis, even though; the most intervention took place between January 2012 and September 2014 in the Indonesian foreign exchange market. Likewise, in the Malaysia foreign exchange market, the most intervention took place between January 2013 and July 2015. Furthermore, the most intervention took place between January 2011 and September 2015 in the Philippines foreign exchange market. However, in the Singapore foreign exchange market, the most intervention took place between January 2010 and July 2013. Meanwhile, the most intervention took place between July 2012 and July 2015 in the Thailand foreign exchange market. The use of full period in the analysis is done to compare the behavior of currency order flows on intervention days with those on non-intervention days.

The OLS regression is adopted to analyze the data, based on the literature (Evans and Lyons, 2003; Chaboud and Humpage, 2005; Girardin and Lyons, 2006 and Marsh, 2011).

The model specification and estimation method run to test intervention effectiveness:

$$\Delta X_t = \alpha + INT_{tt} + e_t \quad (1)$$

$$\Delta X_t = \alpha + INT_{ts} + e_t \quad (2)$$

$$\Delta P_t = \alpha + \beta \cdot \Delta X_t + e_t \quad (3)$$

Where ΔX_t is change in currency order flow, ΔP_t is change in spot exchange rate, α is constant, β is regression parameter, INT_{tt} represents total intervention, INT_{ts} represents secret intervention, e_t is white noise error term.

Monetary Authority Intervention Data

This study was able to determine the periods when the majority of the intervention took place from the construct of the currency order flows and exchange rate fluctuations for the period under consideration, January 4, 2010 through December 31, 2015. In addition, this paper examines whether the fact that monetary authority intervention is detected or remains secret matters. The intervention of monetary authority is considered detected if reports of newswires from either Reuters or Bloomberg clearly state that ASEAN-5 countries' monetary authorities were seen to have intervened in the foreign exchange markets. For example, as cited in Bloomberg newswire reports of January 19, 2015 on Malaysia Ringgit affirm, "Bank Negara Malaysia (BNM) sold around US$7.5b in November and US$2.4b in December 2014, respectively after adjusting for foreign exchange valuation effects. Bank Negara Malaysia is expected to continue to actively curb excessive MYR volatility against the US dollar, as there is risk that if currency depreciation is too fast it could become a destabilizing factor". Therefore, the newswires reports for this study were sourced from Bloomberg database. The monetary authorities (central banks) under consideration include Bank Indonesia (BI), Bank Negara Malaysia (BNM), Bangko Sentral ng Pilipinas (BSP), The Monetary Authority of Singapore (MAS), and Bank of Thailand (BOT).

The study evaluates the success criterion for the sale of US dollars in each case, using four major criteria and an aggregate criterion that incorporates the first four. Furthermore, this paper evaluates the probability of observing a specific number of successes under the assumption that their occurrence is a hypergeometric random variable. The hypergeometric distribution does not require individual events to be independent and does not depend on the presumed probability of an individual success. Thus, the null hypothesis states that the actual number of successes equals the expected (unconditional) number of successes. Therefore, this

study uses unconditional performance in each case as a benchmark upon which performance under each criterion is judged.

The Success Criteria:

1 Reducing the net currency order flow out of dollar

This success criterion tests whether when the central bank sells US dollars, the net currency order flow in dollars against the domestic currency immediately reduces.

An intervention sale of US dollars against the domestic currency is successful if:

$$SC1_t = \begin{cases} 1 \text{ if } INT_t = 1, \text{and } COF_t < 0 \\ 0 \text{ otherwise} \end{cases} \quad (4)$$

2. *Reversing the direction of the net currency order flow*

This is a more stringent subset of the first criterion. It presumes that when the central bank intervenes to sell US dollars, it then changes the direction of net currency order flows.

An intervention for the sale of US dollars against the domestic currency is successful if:

$$SC2_t = \begin{cases} 1 \text{ if } INT_t = 1, \text{and } COF_t < 0, \text{and } COF_{t-1} > 0 \\ 0 \text{ otherwise} \end{cases} \quad (5)$$

3 Accentuating the net currency order flow

This is also a subset of the first criterion. It tests whether when central bank sells US dollars against the domestic currency, it reduces the value of the net currency order outflow at a faster rate. That is *"leaning with the wind"*.

An intervention would be deemed successful if:

$$SC3_t = \begin{cases} 1 \text{ if } INT_t = 1, \text{and } COF_t < COF_{t-1}, \text{and } COF_{t-1} < 0 \\ 0 \text{ otherwise} \end{cases} \quad (6)$$

d. Moderating the net currency order flow

This success criterion considers intervention by the central bank to smooth the foreign exchange market, which is *"lean against the wind"*. It tests whether when the central bank sells US dollars against the domestic currency, it reduces the value of the net currency order flows slowly, but does not reverse the position.

An intervention would be deemed successful if:

$$SC4_t = \begin{cases} 1 \text{ if } INT_t = 1, \text{and } COF_t < COF_{t-1}, \text{and } COF_t \geq 0, \text{and } COF_{t-1} > 0 \\ 0 \text{ otherwise} \end{cases} \quad (7)$$

e. General success criterion for net currency order flows

This success criterion aggregates the first four criteria, as it represents the union of the previous criterion. It tests whether following the central bank intervention operations to sell US dollars against the domestic currency, the net currency order flow moves in the desired target. That is, currency order flows are out of the dollar or, if not, at least not as much as they were in the undesired trend.

An intervention would be deemed successful if:

$$SC5_t = \begin{cases} 1 \text{ if } INT_t = 1, \text{and } COF_t < 0 \text{ or } COF_t < COF_{t-1} \\ 0 \text{ otherwise} \end{cases} \quad (8)$$

N.B. *SC: Success criteria; COF: currency order flow; INT: Intervention*

4 EMPIRICAL RESULTS AND DISCUSSION

The focus here is on the relationship between currency order flow and market intervention, thereafter, currency order flow and exchange rate fluctuations for all the five countries in the sample.

Table. 1 reports the summary of the success criteria performance on total intervention days for the ASEAN-5 countries' currencies against US dollar currency order flows. For all the countries in the sample with the exception of Malaysia, the population are set to 1563 days for each criterion (one day is lost for comparing performance with previous day). However, for Malaysia, the population is set to 1496 days for each criterion. The sample size is 716 days for Indonesia, 673 days for Malaysia, 1173 days for the Philippines, 932 days for Singapore and 783 days for Thailand.

Table.1*:* **Summary of success criteria performance on total intervention days for the ASEAN-5 countries' currencies -USD currency order flows**

Success Criteria (SC)	**SC1**	**SC2**	**SC3**	**SC4**	**SC5**
PANEL A: INDONESIA					
Total Interventions (716) days					
Successful Interventions	226 days	434 days	283 days	304 days	351 days
Conditional (% of Successful Intervention)	**31.52%**	60.61%	39.53%	**42.46%**	49.02%
Expected Number of Success	474 days	964 days	641 days	652 days	784 days
Unconditional (% of Expected No. of Success)	30.31%	61.68%	41.01%	41.71%	50.16%
P-Value	**0.0132****	0.3579	0.6894	0.3882	0.7132
PANEL B: MALAYSIA					
Total Interventions (673) days					
Successful Interventions	305 days	179 days	138 days	235 days	402 days
Conditional (% of Successful Intervention)	45.25%	26.61%	**20.51%**	**34.92%**	59.73%
Expected Number of Success	726 days	400 days	291 days	494 days	955 days
Unconditional (% of Expected No of Success)	48.49%	26.74%	19.45%	33.02%	63.84%
P-Value	0.9320	0.3635	**0.0252***	**0.0485***	0.8991
PANEL C: PHILIPPINES					
Total Interventions (1173) days					
Successful Interventions	390 days	684 days	389 days	714 days	560 days
Conditional (% of Successful Intervention)	**33.25%**	58.31%	**33.16%**	60.92%	47.75%
Expected Number of Success	508 days	921 days	492 days	961 days	758 days
Unconditional (% of Expected No. of Success)	32.50%	58.93%	31.48%	61.48%	48.50%
P-Value	0.1967	0.2257	**0.0173****	0.2036	0.3476
PANEL D: SINGAPORE					
Total Interventions (932) days					
Successful Interventions	540 days	360 days	482 days	351 days	465 days
Conditional (% of Successful Intervention)	**57.94%**	38.63%	**51.72%**	37.66%	49.89%
Expected Number of Success	889 days	609 days	797 days	596 days	787 days
Unconditional (% of Expected No. of Success)	56.88%	38.96%	50.99%	38.13%	50.35%
P-Value	0.1610	0.2165	**0.0015****	0.3372	0.2655
PANEL E: THAILAND					
Total Interventions (783) days					
Successful Interventions	147 days	436 days	152 days	326 days	389 days
Conditional (% of Successful Intervention)	**18.75%**	55.68%	**19.41%**	41.63%	49.68%
Expected Number of Success	282	914	288	673	819
Unconditional (% of Expected No. of Success)	18.03%	58.48%	18.43%	43.06%	52.40%
P-Value	**0.0436***	0.1356	0.2642	0.2397	0.6102

* denotes significance at the 5% level; ** at the 1% level.

From Table 1, Row 1 indicates the lists of success criteria. While Row 2 indicates the count of total interventions from the construct of the currency order flows and exchange rate fluctuations for all the countries in the sample between January 4, 2010 and December 31, 2015. Meanwhile, Row 3 presents the total number of interventions that were successful according to each of the specific criterion. Likewise, Row 4 reveals the conditional success rate. That is, it expresses the number of successes as a percentage of the total interventions. For example, in Indonesia (Panel A) SC4 304 days /716 days = 0.4246 or 42.46%. The 304 days represents the total number of successful interventions, while 716 days represents the total number of interventions. The 42.46% represents the percentage of successful intervention. The same interpretative analogy applies to similar parts in the Table. Row 5 presents the expected number of success (unconditional) under each criterion based on the total population for each of the countries in the sample. Meanwhile, Row 6 indicates the unconditional success rate. That is, it expresses the number expected successes as a percentage of the total population (Full sample). For example, for Indonesia (Panel A) SC4 652 days /1563 days = 0.4171 or 41.71%, the 652 days represents the expected number of success based on the 1563 total population. The 41.71% represents the percentage of expected number of success. Likewise, the same interpretative analogy applies to similar parts in the Table. In addition, when the conditional success rate exceeds the unconditional success rate, the conditional success rate is made bold. Row 7 reports the P-value associated with rejecting the null hypothesis that indicates the observed number of successes equal to the expected number of successes. In other words, it presents the p-value associated with one-sided test, and that, under a hypergeometric distribution based on the unconditional frequencies of each sample period, the conditional frequency of success exceeds the unconditional frequency of success. For example, for Indonesia (Panel A), it expresses the probability value of observing number of successes (say X) in a sample of 716 days when the success rate in a population of 1563 days (say Y). Probability values of 5% or less are made bold. For example, using SC4 (moderating the net currency order flow), Bank Indonesia intervention was successful on 304 days or 42.46% based on the sample. The net currency order outflow is moderated relative to the previous day on 652 days of the 1563 days in the population, giving an unconditional proportion of 41.71%. Here, the conditional proportion is greater than the unconditional proportion. This implies that Bank Indonesia market intervention did move in the desired target by moderating the net currency order flow out of the US dollar at a slow pace, but does not reverse the position. The same interpretative analogy applies to other countries in the sample.

The results show that the conditional probability is greater than the unconditional probability for only two out of the five tests conducted for all the countries in the sample. In three cases, the conditional probability is less than expected. Therefore, it appears that Bank Indonesia reduces and moderates the net currency order flow out of US dollar. However, statistical significance at 1% level is only found on SC1 (p-value 0.0132). Likewise, in the Malaysian foreign exchange market, it appears that Bank Negara Malaysia accentuates and moderates the net currency order flows out of US dollar, however, statistical significance at 5% level is only found twice (SC3 and SC4). Meanwhile, in the Philippines, Singapore and Thailand foreign exchange markets, it seems that the monetary authorities reduce and accentuate the net currency order flow out of US dollar. Although statistical significance is only found on SC3 for the Philippines and Singapore, while in Thailand, statistical significance is only found on SC1.

According to the literature, most of the Central Bank interventions were kept secret by the monetary authorities. Therefore, this study divided the sample according to whether the intervention was detected or not, based on the newswires reports from the Bloomberg. Table 2 reports the summary of success criteria performance on secret intervention days for all the ASEAN-5 countries' currencies against the US dollar currency order flows. Of the 716 days

of Bank Indonesian market intervention, 86 days were detected and 630 days were not. Likewise in Malaysia, of the 673 days of Bank Negara Malaysia market intervention, 68 days were detected and 605 days were not. Also in the Philippines, of the 1173 days of Bangko Sentral ny Pilipinas market intervention, 35 days were detected and 1138 days were not. Meanwhile, in Singapore, of the 932 days of Monetary Authority of Singapore market intervention, 31 days were detected and 901 days were not. While in Thailand, of the 783 days of Bank of Thailand market intervention, 84 days were detected and 699 days were not, based on the newswires reports from the Bloomberg.

Table 2: Summary of success criteria performance on secret intervention days for the ASEAN-5 countries' currencies -USD currency order flows

Success Criteria	**SC1**	**SC2**	**SC3**	**SC4**	**SC5**
PANEL A: INDONESIA					
Secret/Undetected Interventions (630) days					
Successful Interventions	214 days	374 days	264 days	254 days	314 days
Conditional (% of Successful Intervention)	**33.91%**	59.37%	**41.91%**	40.32%	49.84%
Expected Number of Success	474 days	964 days	641 days	652 days	784 days
Unconditional (% of Expected No. of Success)	30.31%	61.68%	41.01%	41.71%	50.16%
P-Value	0.1674	0.3083	0.5722	0.3714	0.6833
PANEL B: MALAYSIA					
Secret/Undetected Interventions (605) days					
Successful Interventions	280 days	164 days	126 days	198 days	362 days
Conditional (% of Successful. Intervention)	46.28%	**27.11%**	**20.83%**	32.73%	59.84%
Expected Number of Success	726 days	400 days	291 days	494 days	955 days
Unconditional (% of Expected No of Success)	48.49%	26.74%	19.45%	33.02%	63.84%
P-Value	0.8555	0.2621	**0.0137****	0.2997	0.8018
PANEL C: PHILIPPINES					
Secret/Undetected Interventions (1138) days					
Successful Interventions	328 days	657 days	324 days	701 days	476 days
Conditional (% of Successful Intervention)	28.82%	57.73%	28.47%	**61.60%**	41.83%
Expected Number of Success	508 days	921 days	492 days	961 days	758 days
Unconditional (% f Expected No. of Success)	32.50%	58.93%	31.48%	61.48%	48.50%
P-Value	0.1440	0.3246	0.1931	0.3163	0.4663
PANEL D: SINGAPORE					
Secret/ Undetected Interventions (901) days					
Successful Interventions	492 days	344 days	468 days	339 days	441 days
Conditional (% of Successful. Intervention)	54.61%	38.18%	**51.94%**	37.62%	48.95%
Expected Number of Success	889 days	609 days	797 days	596 days	787 days
Unconditional (% of Expected No. of Success)	56.88%	38.96%	50.99%	38.13%	50.35%
P-Value	0.1237	0.2132	**0.0384***	0.4832	0.2487
PANEL E: THAILAND					
Secret/Undetected Interventions (699) days					
Successful Interventions	134 days	394 days	128 days	304 days	357 days
Conditional (% of Successful Intervention)	**19.17%**	56.37%	18.31%	**43.49%**	51.07%
Expected Number of Success	282 days	914 days	288 days	673 days	819 days
Unconditional (% of Expected No. of Success)	18.03%	58.48%	18.43%	43.06%	52.40%
P-Value	0.1240	0.2532	0.3338	0.1653	0.5239

* denotes significance at the 5% level; ** at the 1% level.

Therefore, this paper repeats the calculations using the 630 days sample of secret market intervention for Indonesia, 605 days for Malaysia, 1138 days for the Philippines, 901 days for Singapore and 699 days for Thailand. The results show that Bank Indonesia reduces and accentuates the net currency order flows out of US dollar; although none of the five tests conducted were statistically significant. Likewise, for Malaysia, it appears that Bank Negara

Malaysia reverses and accentuates the net currency order flows out of US dollar, but then, only one of the five tests conducted is statistically significant at 1% level of significance (Pv 0.0137). Meanwhile, in the Philippines, it appears that Bangko Sentral ny Pilipinas only moderates the net currency order flow out of US dollar, but, none of the five tests conducted were statistically significant. Furthermore ,in Singapore, it seems the Monetary Authority of Singapore only accentuates the net currency order flows out of US dollar, and statistical significance at the 5% level is only found in SC3 (Pv 0.0384). While in Thailand, it appears that Bank of Thailand reduces and moderates the net currency order flow out of US dollar, but then, none of the five tests conducted were statistically significant. These results therefore confirm that there is no much evidence to show that market intervention improves the situation to alter the US dollar currency order flows in the ASEAN-5 countries foreign exchange markets.

Table 3 reports the results of the standard regression of the daily change in the (log) of the spot ASEAN-5 countries' currencies against the US dollar on the net currency order flows. This study employs the full sample, non-intervention days (subset of full sample), intervention days (subset of full sample), secret intervention days (subset of intervention days) and detected intervention days (subset of intervention days).

Table.3: Summary of linear regression of the daily change in the log of the spot ASEAN-5 countries' currencies-USD on the net currency order flow

	Coefficient	t-statistic	R-squared	P-value
PANEL A: INDONESIA				
Full- Sample (1563 days)	0.000121	4.6163	0.1179	0.0000**
Non-Intervention days (847)	0.000147	3.0836	0.0675	0.0214*
Intervention days (716)	-0.000114	1.5114	0.0221	0.1311
Secret Intervention days (630)	-0.000895	1.1928	0.0156	0.2334
Detected Intervention days (86)	-0.000564	0.3098	0.0109	0.7575
PANEL B: MALAYSIA				
Full- Sample (1496 days)	0.004260	5.1411	0.1915	0.0000**
Non-Intervention days (823)	0.004350	3.7765	0.1048	0.0013**
Intervention days (673)	0.000346	1.1283	0.0778	0.2311
Secret Intervention days (605)	0.000517	1.1054	0.0535	0.2104
Detected Intervention days (68)	-0.000648	0.2651	0.0323	0.7920
PANEL C: PHILIPPINES				
Full- Sample (1563 days)	0.000128	2.3915	0.0550	0.0271*
Non-Intervention days (390)	0.000621	1.6150	0.0376	0.1235
Intervention days (1173)	0.000107	1.2191	0.0413	0.2179
Secret Intervention days (1138)	0.000114	1.1581	0.0458	0.2310
Detected Intervention days (35)	0.000315	0.8195	0.0020	0.4185
PANEL D: SINGAPORE				
Full- Sample (1563 days)	0.006290	5.7440	0.1879	0.0000**
Non-Intervention days (631)	0.002270	3.1145	0.1013	0.0017**
Intervention days (932)	0.000510	0.5076	0.0003	0.6118
Secret Intervention days (901)	0.000526	0.5090	0.0003	0.6109
Detected Intervention days (31)	0.001980	0.6100	0.0011	0.5470
PANEL E: THAILAND				
Full- Sample (1563 days)	0.000394	4.6984	0.1168	0.0002**
Non-Intervention days (780)	0.000183	2.9517	0.0980	0.0314*
Intervention days (783)	0.000149	1.2695	0.0612	0.2148
Secret Intervention days (699)	0.000112	1.1321	0.0315	0.2452
Detected Intervention days (84)	-0.000845	0.7868	0.0103	0.4784

* denotes significance at the 5% level; ** at the 1% level.

The results show that there are explanatory power (R^2) in the linear regression for the full sample and non-intervention days in the Malaysia and Singapore foreign exchange markets, and statistically significant at 1% level. However, on the intervention days, secret

intervention days and detected intervention days, very weak explanatory power and statistically insignificant were deduced. Likewise, in the Indonesia and Thailand foreign exchange markets, the results show that there is an explanatory power in the linear regression for the full sample. Meanwhile, non-intervention days, intervention days, secret intervention days and detected intervention days reveal low/weak explanatory power. Nevertheless, the full sample and non-intervention days are statistically significant at 1% and 5% respectively. But, in the Philippines foreign exchange market, the full sample, non-intervention days, intervention days, secret intervention days and detected intervention days reveal very low/weak explanatory power in the linear regression although, the full sample shows 5% level of statistical significance.

Furthermore, the correlation between currency order flow and exchange rate disappears on intervention days, secret intervention days and detected intervention days for all the countries in the sample. This is difficult to explain. Though, one of the main reasons might be based on the market makers/dealers who observed the news that market intervention was taking place and priced it into the market while the newswires were not informed, thus, making currency order flow unimportant in affecting the exchange rate during intervention days. Therefore, the presence of ASEAN-5 countries monetary authorities in the foreign exchange market appears to affect the relationship between currency order flow and exchange rates of their domestic currencies against the US dollar. Hence, ASEAN-5 countries' foreign exchange markets are sensitive to market intervention. These results are consistent with other empirical studies, such as Girardin and Lyons (2007), Chaboud and Humpage (2005) and Marsh (2011).

5 CONCLUSION

This paper investigates foreign exchange market intervention in an emerging market through the behavior of currency order flow, with evidence from ASEAN-5 foreign exchange markets. The study constructs a measure of currency order flow in the ASEAN-5 foreign exchange markets context to reflect the pressure of currency excess demand. It also adopts some market intervention success criteria and OLS approach to explore market intervention and the extent to which this policy tool is effective. The study finds that market intervention is effective in influencing both the exchange rate and currency order flow, as the presence of monetary authorities affect the correlation between exchange rate and currency order flow. The monetary authorities mostly intervene to smooth the foreign exchange market, which is more of "*leaning against the wind"* but unable to reverse the trend. Therefore, the exchange rates of ASEAN-5 countries are sensitive to central bank intervention. The findings suggest that the central bank intervention will only become effective if the country has a sound monetary and fiscal policy. These results are consistent with other empirical studies of developed and emerging markets of similar nature.

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