Research Article

EFFECT OF FINANCIAL LEVERAGE ON FIRM'S PERFORMANCE: A STUDY OF NIGERIAN BANKS (2006 -2015)

Nwanna Ifeanyi Onyenwe[1] and Ivie Glory[2]

[1]Department of Banking and Finance, Faculty of Management Sciences,
Nnamdi Azikiwe University, Awka
[2]Department of Accountancy, Faculty of Management Sciences,
Nnamdi Azikiwe University, Awka

ARTICLE INFO

ABSTRACT

This study investigated the effect of financial leverage measures on firm's performance. The study was carried out on thirteen deposit-money banks listed on the Nigerian Stock Exchange floor for a period of ten years from 2006 to 2015. Financial leverage was decomposed into debt ratio, debt-equity ratio and interest coverage ratio. Performance areas under study were profitability, size, liquidity, efficiency and market capitalization value, all measured using relevant ratios. Data were collated from annual reports of companies and analysed with the ordinary least square multiple regression technique to investigate for the effects of financial leverage ratios on performance ratios. Models were formulated for each hypothesis and tested using the R square, adjusted R square and calculated f figures. The empirical results revealed that financial leverage has positive effect on profitability and efficiency. No significant effects were found on liquidity, size and market capitalisation value. The findings implied that the use of debt improves managerial efficiency as managers will have to ensure more profit is made to pay interests and still be profitable. Interests which are tax deductible were also found to reduce tax and improve profitability. It was recommended that debt should be employed in such capacity that the costs do not outweigh the benefits. Management should also ensure that financial decisions taken are in consonance with the shareholders' wealth maximization objectives which encompass the profit maximization objective of the firms.

INTRODUCTION

Background of the Study

Over the years, there has been a growing interest in the dwindling movement of economic trends not just in Nigeria, but also globally. Various economic units have set up several measures to adapt to the unfavourable climate on one hand and contribute to the amelioration of the depressing economy. Deposit Money Banks [also referred to as Commercial Banks] are not left out in this pool of economic units.

The sources of long-term funding for a business are divided into two main categories, owners' funding (equity) and borrowed funding (debt). The proportionate mix of these two sources in financing a firm's investment proposals has been the subject of intensive theoretical modelling and empirical examination over the years having its tenet in the implication of such a mix on corporate performance (Akinmulegun, 2012).

Banerjee (2009) states that there should be a proper mix between debt and equity to take advantage of a proper financial planning because debt capital is cheaper than equity capital with the attendant effect of lowering the average cost of capital of the firm.

Leverage is basically explained as the use of borrowed fund to make an investment and return on that investment. Gatsi, Gadzo & Akoto (2013) opines that the ability of the company's management to increase their profit by using debt indicates the quality of the management's corporate governance. Good corporate governance shows the companies' performance on their use of debt to increase their profits. The use of debt capital increases the earnings on equity capital as long as the rate of return on the firm's investment exceeds the explicit cost of financing the investment (Abdul & Adelabu, 2015)

Corresponding author: **Nwanna Ifeanyi Onyenwe**
Department of Banking and Finance, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka

Statement of the Problem

An important financing decision that firms must take is to decide the proportion of debt and equity that will constitute their capital structure. It is usually a difficult task for managers to ensure that business organisations operate on the optimal mix of equity and debt. They are in constant struggle of ensuring the adequate sources of long-term financing that will maximise the wealth of shareholders (Njeri & Kagiri, 2013). Any combination of common stock, preferred stock and debt used in financing the assets of a firm creates some level of financial risk. In other words, financial risk is directly related to the firm's capital and financial structure/leverage (Pandey 2010). There is an ever increasing and growing variance in performance of commercial banks with relation to financing of their operations. The study seeks to find how banks are able to minimise risk and still remain optimally financed.

The financial performance of companies is a subject that has attracted a lot of attention, comments and interests from both financial experts, researchers, the general public and the management of corporate entities. Yet, selecting out the most successful firms has always proved to be a difficult task to many as a firm may have a high level of profitability, but at the same time be in a very bad situation regarding its liquidity and efficiency (Omoni & Muturi, 2013).

Financial management in public companies aims to maximize the company market value or to maximize stock value in the market. Achievement of this goal depends on a number of variables that vary in its impact on company's value from one variable to another and from one market to another and from one sector to another.

Objectives of the Study

The general objective of this study is to investigate the effect of financial leverage on performance of Nigeria banks.

The specific objectives are:

1. To ascertain the effect of financial leverage on profitability measured by Return on Capital Employed.
2. To ascertain the effect of financial leverage on Firm size.
3. To assess the relationship between financial leverage and liquidity of banks measured by current ratio.
4. To ascertain the effect of financial leverage on efficiency of banks measured by Assets Turnover Ratio.

Research Questions

1. How does financial leverage affect profitability measured by Return on Capital Employed?
2. To what extent does financial leverage affect Firm size?
3. What relationship exists between financial leverage and liquidity of banks measured by current ratio?
4. What effect does financial leverage have on efficiency of banks measured by Assets Turnover Ratio?

Research Hypotheses

The hypotheses for this study are stated in null forms as follows:

1. H_o: Financial leverage does not significantly affect profitability measured by Return on Capital Employed.
2. H_o: Financial leverage does not significantly affect Firm size.
3. H_o: There is no significant relationship between financial leverage and liquidity of banks measured by current ratio.
4. H_o: Financial leverage does not have any significant effect on the efficiency of banks measured by Assets Turnover Ratio.

Significance of the study

The study will be relevant to certain groups of people. They include:

Finance Managers: This study will act as a policy guideline to finance managers involved in managing firms on the contribution of financial leverage and its association with return on equity to maximize shareholder wealth. It will aid decision-making relating to the proper mix between debt and equity that will be of advantage to the firm. This will in turn establish a proper financial planning that will bring about improvement in the overall rate of return of the firm since cost of debt capital is lower than that of equity.

Policy Makers: Policy makers in the industry would be able to formulate appropriate debt and profitability management policy that would put the company above others in the same industry because the use of debt increases the earnings on equity capital as long as the rate of return on the firm's investment exceeds the explicit cost of financing the investment.

The Academic Community: The study would add more updated empirical evidence to existing financial literature in Nigeria regarding relationship between financial leverage and corporate performance and would be of great benefit to the academic field as it will serve as a reference point for students and future researchers who will want to research more on the topic.

Scope of the Study

Financial leverage measures the ratio of debt to equity of a firm. This study focuses on how the financial leverage of quoted commercial banks affects the financial performance measured by return on capital employed, firm size, liquidity, efficiency and market value. The study was delimited to banks quoted on the Nigerian Stock Exchange Floor. To ensure that the objectives of this study are achieved, the study adopted a ten year period which is considered sufficient to establish a relationship among the variables. Data was therefore extracted from the annual reports of the studied banks covering ten financial years 2006 to 2015 financial statements.

Limitations of the Study

The major challenge faced by the researcher, is in the area of inconsistency in obtaining data for the study. Out of the fifteen banks that constitute the population of the study, annual report for ten years were obtained for thirteen of them. Four years report were obtained for Ecobank while five years report were obtained for Unity bank which are inconsistent with the thirteen other banks and were therefore not considered in this study. The researcher therefore made use of the available data

which nevertheless is considered sufficient to test the hypotheses.

Review of Related Literature

Conceptual Framework

Leverage

Leverage refers to the extent to which firms make use of their money, borrowings (debts financing) to increase profitability and is measured by total liabilities to equity. Leverage refers to the proportion of debt to equity in the capital structure of a firm. The financing or leverage decision is a significant managerial decision because it influences the shareholder's return and risk and the market value of the firm (Omondi & Muturi, 2013). Leverage is viewed as a result of events that determines companies' source of financing to run the business (Alkhatib, 2012). Firms that borrow large sums of money during a business recession are more likely to default to pay off their debts as they mature; they will end up with high leverage and are more likely to end up with a potential risk of bankruptcy.

Firms with a high leverage are expected to disclose more information than firms with low leverage. The disclosure of information can be used to lower the monitoring costs of creditors. Creditors would like more information to be disclosed to control their own credit risk. Business owners seek to increase their wealth and the performance of their firms. Njeri & Kagiri (2013) opine that leverage increases the level of the debt in the capital structure and the turnover of the business and hence its profit, resulting in an increase in returns to the business owners. They also claim that an increase in interest rate is expected to result in reduced borrowing, increased interest expenses and thus reduced returns to business owners.

Determinants of Leverage

1. **Firm size:** Large sized firms normally have more business diversification than small firms in terms of credit ratings, constant cash flow, and lower risk of bankruptcy. Furthermore large firms are capable of decreasing transaction costs of issuing long-term debt at a favourable low rate of interest. Consequently, since it is easier for large sized firms to raise funds from creditors.

2. Growth: Growth is defined as the annual percentage growth in the firms' total assets between two successive years divided by the preceding year. A rise in growth rate is regarded as an indication of a firm's financial strength and may cause higher demands for raising equity funds from external sources. Firms with large volume of growth rate need to raise additional financial support to back up their capital expenditure strategies.

3. Tangibility: Tangibility is a fundamental element of determining the firm's leverage. Firms with little tangible assets generally have low leverage ratio and therefore would be difficult to collateralize such assets to raise additional funds accompanied with the risk of bankruptcy. On the contrary, firms with large volume tangible assets are more likely to collateralize their assets to raise additional funds with little risk due to

the investments diversifications which at the end reduces the risk of bankruptcy (Jensen, 1986).

Financial Leverage

This study is limited to financial leverage, thus a lucid description is necessary. Financial leverage is a measure of how much firm uses equity and debt to finance its assets. It takes the form of a loan or other borrowing (debt), the proceeds of which are re-invested with the intent to earn a greater rate of return than cost of interest. Financial leverage is the use third party funds in financing in order to increase operating profit and taxes, which is loans ratio to total liabilities. It is the firm's ability to use fixed financial charges to magnify the effects of changes in the earnings before interest and tax on the firm's earnings per share (Abdul & Adelabu, 2015).

Pandey (2010) states that financial leverage occurs when there are no fixed financial charges (interest and preference dividend). Firms are either levered or unlevered. An unlevered firm is an all-equity firm, whereas a levered firm is made up of ownership equity and debt (Andy, Chuck & Alison, 2002). As debt increases, financial leverage increases.

Measures of Financial Leverage

Debt Ratio (DR): Ezeamama (2010) states that debt ratio (DR) measures the amount of the total funds provided by creditors in relation to the total assets of the firm. This is measured by the total debt to total assets and is a proxy to leverage.

Debt ratio = Total debt/Total Assets. The formula is given below as the ratio of Total debt to Total Assets

Debt to Equity Ratio

Enekwe (2012) posits that debt to equity ratio is a financial ratio indicating the relative proportion of equity and debt used to finance a company's assets which is an indicator of the financial leverage. Nwude (2003) defines debt to equity ratio as a measure of the proportion of debt to shareholders funds (Net Worth) in the total financing of a business. The ratio indicates how much naira was raised as debt per naira of equity. Debt-equity ratio has implications for the shareholders' dividends and risk, this affect the cost of capital and the market value of the firm (Pandey, 2010).

Interest Coverage Ratio: This measure of financial leverage is also commonly known as coverage ratio. It indicates the capacity of a firm to meet fixed financial charges. Interest coverage ratio is a ratio that recognizes that many firms lease assets and incur long-term obligations under lease contracts for the payment of lease premium (Ezeamama, 2010). Pandey (2010) states that it indicates the ratio of net operating income (or EBIT) to interest charges. Investors usually have an idea of financial risk of a firm by comparing the coverage ratios of similar firms with an accepted industry standard, the investors.

Financial performance

According to Iswatia, & Anshoria (2007), performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage. Financial performance emphasizes on variables related directly to financial report. Almajali, Alamro and Al-

Soub (2012) argue that there are various measures of financial performance. For instance return on sales reveals how much a company earns in relation to its sales, return on assets explain a firm's ability to make use of its assets and return on equity reveals what return investors take for their investments. Company's performance can be evaluated in three dimensions.

Profitability

Profit is the ultimate goal of business organisations, commercial banks inclusive. All the strategies designed and activities performed are meant to realise this grand objective. Leverage levels are likely to influence profitability since it affects the Weighted Average Cost of Capital (WACC). On a different note, profitable firms can issue debt at low rates of interest since they are seen as less risky by the creditors (Mazur, 2007). Profitability ratios include: Return on Assets, Earnings per Share, Return on Equity and Return on Capital Employed.

Return on Capital Employed: ROCE is a financial ratio that refers to how much profit a company earned compared to the total amount of capital invested or found in the statement of financial position (Ongore & Kusa, 2013). It is the return per naira of capital employed in the firm. A business with high returns on capital employed is more likely to be one that is capable of generating cash internally. Thus, the higher the ROCE the better the company is in terms of profit generation.

Firm size

All firms exist to grow very large. This is because firm growth serve as a motivation for stakeholders like Investors, Employees, Suppliers, Government and the Society at large. When firms enlarge, there is a level of satisfaction that board of directors and management are making use of organisational resources and using opportunities to the advantage of the firm. Size is proxy using the natural logarithm of total assets.

Liquidity

Liquidity is the ability of a firm to meet their current liabilities as they fall due. Excessive amounts of current assets owned by a firm would perhaps increase the chances of internal funding resulting in a relation between leverage and liquidity (Bhunia and Das 2012). Eljelly (2004) stated that liquidity involves planning and controlling current assets and current liabilities in a manner that eliminates the risk of inability to meet short-term obligations on one hand and avoid excessive investment in these assets on the other hand. Furthermore, sufficient liquidity has an impact on the financial strength of a firm (Bei & Wijewardana, 2012). Agyei & Yeboa (2011) stated that in the banking sector, liquidity is a measure of performance, at least for two reasons; to meet regulatory requirement and to guarantee enough liquidity to meet customers' unannounced withdrawals. Current assets therefore must be sufficient to allow daily operations. Firms with too few current assets may incur shortages and difficulties in maintaining smooth operations (Van Horne & Wachowicz, 2000). Liquidity in this study will be measured using current ratio.

Current Ratio

Current ratio is computed by dividing current assets by current liabilities. It shows how many times the current assets of a firm can take care of its short-term obligations.

Efficiency

Efficiency is one of the key internal factors that determine the performance of commercial banks. Efficiency is the capability of management to deploy its resources efficiently, maximise income and reduce operating costs. The efficiency of organisations is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, control systems, quality of staff, and others (Ongore & Kusa, 2013). One of the ratios used to measure efficiency is the Asset turnover Ratio. Others are total asset growth, loan growth rate and earnings growth rate. The higher the ratio, the more efficient the organisation is believed to be.

Asset turnover Ratio

This ratio tells the revenue generated from the total assets employed. It shows how much was generated from the companies' investment of assets.

Theoretical Framework

This research work was anchored on the trade-off theory because it proposes that a firm's optimal debt ratio is determined by a trade-off between the costs and benefits of borrowing. This study sought to find the effects of financial leverage on firm`s financial performance whether positive (benefits), negative (costs) or neutral. Other capital structure theories relevant to this work were also treated below: the irrelevancy theory and the pecking order theory.

Trade-off Theory

The trade-off theory of capital structure is the idea that a company chooses how much debt equity finance to use by balancing the cost and benefits. The classical version of the hypothesis goes back to Kraus and Litzenberger who considered a balance between the dead-weight cost of bankruptcy and the tax saving benefits of debt (Frank, Murray Z.; Goyal, Vidhan K. 2011).

A firm's optimal debt ratio is determined by a trade-off between the bankruptcy cost and tax advantage of borrowing. Mathematically, it is achieved at the point when the marginal present value of the tax on additional debt is equal to the increase in the present value of financial distress costs. Financial distress costs as used in the previous sentence comprises of the costs of bankruptcy, re-organization or agency costs that arise when the firm has low creditworthiness rating.

The trade-off theory says that the firm will borrow up to the point where the marginal value of tax shields on additional debt is just offset by the increase in the present value of possible cost of financial distress. The value of the firm will decrease because of financial distress (Myers, 2001). The theory also weights the benefits of debt that result from shielding cash flows from taxes against the costs of financial distress associated with leverage. It claims the total value of a levered firm equals the value of the firm without leverage plus present value tax savings from debt, less the present value of financial distress costs. The theory assumes that a firm has an optimum capital structure based on trade-off between costs and benefits of using debt. However, Mule and Mukras (2015) argued that this theory does not explain the conservative nature of firms

when using debt finance and the consistency of leverage in most countries despite divergent taxation systems.

The Irrelevancy Theory

According to Rodrigo (2015), the Miller and Modigliani capital structure of a firm is irrelevant to the firm's current investment and financing decisions. The theory is based on the assumption that markets are efficient, investors neither incur transaction costs nor pay taxes when buying and selling securities. In addition, there are no information asymmetries between shareholders and managers (Myers and Brealey, 2002). The capital structure of a firm is the mix of equity and debt that the company uses to finance its investments (Aggarwal, Drake, Kobor, & Noronha 2011). The objective of the firm is to figure out the financial leverage or capital structure that minimises the weighted average cost of capital (WCC) so as to maximise the value of the firm.

If a firm uses cheaper debt, the risk of the firm will increase and consequently the stock holders will demand higher dividend to compensate them for the high risk in their investments (Mule & Mukras, 2015). Modigliani and Miller theorized that the market value of a firm is determined by its ability to earn and the risk of its underlying assets. Thus the weighted average cost of capital should remain constant. They also argued that the value of a firm is not affected by capital structure but by the earning ability of the assets. The assumptions of this theory however, do not hold in the real world since perfect markets do not exist.

The Pecking Order Theory

The pecking order theory posits that financing can be obtained from three different sources which are: internal funding which is the least expensive, debt financing, which is more expensive and external equity sources which is the most expensive of all. Gweyi and Karanja (2014) state that firms would rather have their source of funds raised internally as their first choice, the second choice would be through raising debts from external sources, and the last choice would be through external equity. It is also argue that the standard pecking order is a special case of adverse selection. When there is adverse selection about firm value, firms prefer to issue debt over outside equity and standard pecking order models apply. This theory explains why internal finance is more popular than external finance and why debt is considered the best option for firms. Debt finance is considered attractive, cheap and more profitable as it is considered flexible.

The pecking order theory states that financial oriented companies would not opt for debt financing for their new projects because of the availability of sizeable amounts of internal funds (Abu, 2007). Unlike static trade-off theory, which emphasises that financially sound companies would give preference to the use of debt financing in view of the attraction of tax shield benefit available on borrowed funds. The static trade off theory predicts a direct relationship between profitability and leverage while the pecking order theory expects an inverse-relationship between them (Jong, Verbeek & Verwijmeren, 2011). The static trade-off theory postulates that larger size companies have a higher preference for debt financing because of a lower probability of bankruptcy due to their tendency for diversification (Gatsi *et al*, 2013).

Empirical Review

Thaddeus and Chigbu (2012) studied the effect of financial leverage on bank performance using six banks from Nigeria. The study made use of secondary data from Nigerian Stock Exchange fact book and the financial statements of the sampled banks. Debt-equity and coverage ratios were used to measure financial leverage which was the independent variable, while earning per share (EPS) represented performance as the dependent variable. Multiple regression technique was used to establish whether relationship exist between financial leverage and performance of sampled banks. The findings showed mixed results. While some banks reported positive relationship between leverage and performance, others revealed negative relationship between leverage and performance. Our study gives an improvement in coverage of the number of banks involved in a post bank consolidation era.

Njeri and Kagiri (2013) examined the effect of capital structure to the company's financial performance of listed banking institutions in Nairobi Securities Exchange. The study determined whether capital structure have effect on financial performance of the firm by considering the debt, leverage risk, debt equity ratio and interest rates and how they are related to Return on Equity (ROE), Return on Assets (ROA), Gross Profit Margin and Net Profit Margin (NPM) at determined significant level. Data were also collected using questionnaires administered to the management of the selected banks and analysed with correlation and multiple regression statistical technique. The study targeted thirty five respondents but managed to obtain responses from thirty of them thus representing 86% response rate. The findings indicated that debt had a coefficient of 0.747; leverage risk had a coefficient of 0.751, interest rate had a coefficient of 0.781, and debt-equity proportion had a coefficient of 0.791. Also the study revealed that majority of the respondents agreed that the central bank lending rate affected the decision to finance their firms' working capital to a great extent (3.8676), majority of the respondents agreed that the ratio of non-performing assets is high in a majority of the banks under study (3.8971) and that capital was always maintained at levels above regulatory levels in many banks (3.8971). in addition, the study findings revealed that majority of the respondents agreed that the bank found it cheaper using more of equity financing to a great extent (4.4647) and that the leverage risk affected the performance of many banks and that the trend of earnings was properly monitored by the bank to a great extent (3.6765). The research findings indicated that there was a positive relationship (R= 0.608) between the variables. The study also revealed that 56.4% of financial performance of commercial banks listed at the NSE could be explained by capital structure aspects under study. The study findings revealed that the combined effect of the four aspects under study on financial performance of commercial banks listed at the NSE was statistically significant. This was revealed by the ANOVA findings where high F values and log p values were registered at 95% confidence interval. The study recommends that the Central Bank of Kenya to formulate and enact a policy which makes commercial debt cheaper hence reduce cost of operations of banks, Management of commercial banks listed at the NSE to reduce interest rates so as to attract investors who will inject more funds into these banks.

Enekwe, Agu and Eziedo (2014) determined the effect of financial leverage on financial performance of the Nigeria pharmaceutical companies over a period of twelve (12) years (2001-2012) for the three companies. This work employed three financial leverage ratios for the independent variable which were: debt ratio (DR); debt-equity ratio (DER) and interest coverage ratio (ICR). Financial performance on the other hand was measured using Return on Assets (ROA). The ex-post facto research design was used for this study. Secondary data were obtained from the financial statements of the selected pharmaceutical companies' quoted on the Nigerian Stock Exchange (NSE). Descriptive statistics, Pearson correlation and regressions were employed and used for this study. The results of the analysis showed that debt ratio (DR) and debt-equity ratio (DER) have negative relationship with Return on Assets (ROA) while interest coverage ratio (ICR) has a positive relationship with Return on Assets (ROA) in Nigeria pharmaceutical industry. The analysis also revealed that all the independent variables have no significant effect on financial performance of the sampled companies. Based on the above findings, the researchers recommended that companies' management should ensure that financial decisions made by them are in consonance with the shareholders' wealth maximization objectives which encompasses the profit maximization objective of the firm. The amount of debt finance in the financial mix of the firm should be at the optimal level so as to ensure adequate utilisation of the firms' assets.

Wabwile, Chitiavi, Alala and Douglas (2014) analysed and compared performance amongst tier 1 commercial banks listed on NSE (that is banks with an asset base above 100 billion by the year 2011) in relation to their financial leverage. Specific indicators were used to measure and compare variance in their performance were profitability Return on assets (ROA) and Return on capital employed (ROCE), growth of the firm Earnings per share (EPS) and Dividend yield (DY) and value of the firm Price book value (PBV) was preferred over price/earnings ratio because earnings can be erratic, and hence vary depending on the season of the business but assets on the other hand are less volatile and relatively easy to value. Pearson correlation analysis and regression analysis were used to test correlation of data, F-test, Durbin Watson test, adjusted R2, mean and standard error of the data. There is a negative correlation between debt asset ratio and ROAC and ROCEC (-.642) and (-.494) respectively though not significant. That is as the debt ratio increases, it means the banks' most assets are being financed by both long-term and short-term liabilities and hence the return on such assets as well as that on capital employed is reduced to cater for the outstanding liabilities. There is positive correlation between the debt asset ratio and the EPS (.096) though not significant. Abubakar (2015) investigated the relationship between financial leverage and financial performance of deposit money banks in Nigeria, with specific reference to how debt-equity ratio and debt ratio affect return on equity of deposit money banks in Nigeria. Eleven deposit money banks from Tier 1, Tier 2 and Tier 3 classification of banks were sampled using convenience sampling technique for the period 2005- 2013. This study adopted both descriptive and correlation analysis. Findings from the descriptive analysis show that about 84% of total assets of deposit money banks in Nigeria are financed by debts,

confirming that banks are highly levered financial institutions. The correlation analysis revealed a significant relationship between debt-equity ratio and financial performance proxy by return on equity. However, no significant relationship was found between debt ratio and ROE. The study recommends among others that an appropriate debt-equity mix should be adopted by banks if they must improve their financial performance, survive and remain competitive.

METHODOLOGY

Research Design

The research was carried out using the ex post facto research design technique. The ex-post facto research design seeks to retrieve and study data for events which have already occurred. It is also known as "after the fact" research design because it is a method in which groups that already exist are compared on some dependent variables. Testing the reliability and validity of the data was deemed unnecessary since the data has been published and thus seen as certified by external auditors.

Population of the Study

The population of the study is the totality of the fifteen public quoted banks in Nigeria. Thirteen banks were used in the study because of inconsistency in obtaining data for the study as stated in the limitation of study.

Method of Data Collection

The study was carried out using secondary data. Annual reports for ten years (2006 to 2015) were used. They were obtained from the Nigerian Stock Exchange (NSE). The annual reports not found at the NSE were collected from the Companies' websites. The areas of the annual reports where data were extracted from were Directors' Reports, Statement of Comprehensive Income, Statement of Financial Position and Notes to the Accounts.

Procedure for Data Analysis and Model Qualification

The independent variable for this study is financial leverage measured by three financial leverage ratios for the independent variable which are: debt ratio (DR); debt-equity ratio (DER) and interest coverage ratio (ICR) in line with Enekwe, Agu and Eziedo (2014).

1. Debt Ratio (DR) = $\frac{Total\ Debt}{Capital\ Employed}$

2. Debt-Equity Ratio (DER) = $\frac{Total\ liability}{Total\ equity}$

3. Interest Coverage Ratio (ICR) = $\frac{Earnings\ before\ Interest\ and\ Tax}{Interest}$

The dependent variables are profitability, size, liquidity, efficiency and market value.

Profitability: For profitability, the researchers calculated the Return on Capital Employed (ROCE) by dividing the profit after tax the value of total assets of each annual report. Return on Capital Employed (ROCE) = $\frac{Profit\ after\ Tax}{Capital\ Employed}$

Size: The natural logarithm value of total assets was used as proxy for size in this study. Size= $log_{10} Total\ Assets$

Liquidity: Current Ratio was used as a proxy for liquidity for this study.

Current Ratio (CR) = $\dfrac{Current\ Assets}{Current\ Liabilities}$

Efficiency: Asset Turnover Ratio was used to measure the efficiency of the studied banks. Asset Turnover Ratio (ATR) = $\dfrac{Gross\ Income}{Net\ Assets}$

The Model for this study utilised Multiple Regression Analysis and composite variables as proxies for firm characteristics. The empirical model is specified as follows:

ROCE= f (DR, DER, IC)
SIZE = f (DR, DER, IC)
CR = f (DR, DER, IC)
ATR= f (DR, DER, IC)
TQ = f (DR, DER, IC)

The full specification of the regression equations using unranked OLS are:

ROCE = $\beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
SIZE = $\beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
CR = $\beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
ATR = $\beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
TQ = $\beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
where: DR= Debt Ratio
DER= Debt Equity Ratio
ICR= Interest Coverage Ratio
ROCE= Return on Capital Employed
SIZE= Size of banks
CR = Current Ratio
ATR= Asset Turnover Ratio
TQ= Tobin's q
β_0= constant
β_1= coefficient of debt ratio
β_2= coefficient of debt-equity ratio
β_3= coefficient of interest coverage ratio
ε = stochastic error term

Justification of Methods

Ordinary Least Squares (OLS) multiple regression approach was used to analyse the data., because it enables the investigation of the collective influence of several independent variables on a single dependent variable. In this study, it allowed for investigation of the collective influence of different leverage ratios on performance indicators of the banks studied. Multiple regression analysis also measures the influence of each variable upon the dependent variable, ascertains its significance and allows the combination of different variables, with differing measurement scales, into one model. Finally, the use of multiple regression analysis does not deny the existence of other factors that might influence the level of segment reporting; rather it merely estimates the proportion of the level of segment reporting that can be explained by the identified independent variables.

DATA PRESENTATION AND ANALYSES

The data used are attached in the Appendices 1 to IV for the companies under consideration and can be made available on request. They were analyzed using Ordinary Least Square Regression technique.

Data Analyses

Hypothesis 1

H₀: Financial leverage does not affect profitability measured by Return on Capital Employed

Table 1 Model Summary for financial leverage and profitability

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.586ᵃ	.343	.328	.35532

a. Predictors: (Constant), Interest coverage ratio, Debt Equity ratio, Debt ratio

Source: Computer generated print out from SPSS Version 20

Table 2 ANOVA table for financial leverage and profitability

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.320	3	2.773	21.966	.000ᵇ
	Residual	15.908	126	.126		
	Total	24.228	129			

a. Dependent Variable: Return on Capital Employed
b. Predictors: (Constant), Interest coverage ratio, Debt Equity ratio, Debt ratio

Source: Computer generated print out from SPSS Version 20

Table 3 Table of Regression Coefficients for financial leverage and profitability

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.060	.036		1.654	.101
	Debt ratio	.124	.016	1.487	7.561	.000
	Debt Equity ratio	-.011	.001	-1.586	-8.073	.000
	Interest coverage ratio	.021	.020	.077	1.059	.292

a. Dependent Variable: Return on Capital Employed
Source: Computer generated print out from SPSS Version 20

The empirical results showed regression coefficients of Debt ratio, debt equity ratio and interest coverage ratio at 0.124, -0.011 and 0.021 respectively at t values of 7.561, -8.073 and 1.059. This implies that Debt ratio has positive significant effect on return on capital employed since sig value = 0.000 which is less than 5%. Debt-equity ratio had significant negative effect on ROCE as sig value = 0.000<0.05. Interest coverage ratio had a positive coefficient but did not show significance within the level of significance adopted for this study as sig=0.292>0.05.Thus the higher the debt ratio, the more profitable a firm would be. Profitability however reduces with increased debt-equity ratio while Interest coverage ratio does not particularly affect profitability. Evaluating the model, the value of the R^2 is 0.343 which in other words means that 34.3 percent variation in the net profitability of firms is explained by financial leverage. The remaining 65.7% unexplained variable is largely due to variation in other variables outside the regression model which are otherwise included in the stochastic error term. The f-value of the model (Table 1) suggested that the overall model is statically significant because it has a value higher than the critical value at 5% level of significance.

Decision Rule: Accept null hypothesis if f_{cal} is less than f_{tab}. However, reject null hypothesis and accept alternate hypothesis if f_{cal} is greater than f_{tab}.

$f_{(03,126)}$ 2.70 ; f_{cal} = 21.966   21.966 > 2.70; f_{cal} > f_{tab}

Therefore, we reject the null hypothesis and accept the alternate hypothesis. This implies that financial leverage affects profitability measured by Return on Capital Employed.

Hypothesis 2

H_o: Financial leverage does not affect Firm size

Table 4 Model Summary for financial leverage and firm size

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.339[a]	.115	.094	.47053

a. Predictors: (Constant), Interest coverage ratio, Debt Equity ratio, Debt ratio

Source: Computer generated print out from SPSS Version 20

Table 5 ANOVA table for financial leverage and firm size

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.618	3	1.206	5.447	.001[b]
	Residual	27.897	126	.221		
	Total	31.515	129			

a. Dependent Variable: Firm Size
b. Predictors: (Constant), Interest coverage ratio, Debt Equity ratio, Debt ratio

SOURCE: Computer generated print out from SPSS Version 20

Table 6 Table of Regression Coefficients for financial leverage and firm size

	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.895	.048		246.575	.000
	Debt ratio	-.016	.022	-.166	-.729	.467
	Debt Equity ratio	-.001	.002	-.170	-.744	.458
	Interest coverage ratio	-.030	.026	-.096	-1.141	.256

a. Dependent Variable: Firm Size

Source: Computer generated print out from SPSS Version 20

The results show that the individual leverage measures have negative effects on firm size with all unstandardized coefficient showing negative values. Inferring from the t and significance values, the negative effects they have are not significant. However, when all are rolled into a model as stated in chapter three, they collectively have a significant effect as shown by the f and significance value on the ANOVA Table being 5.447 and 0.001 respectively. The f value is greater than the critical value of f and the significance value lower than 0.05.

Decision Rule: Accept null hypothesis if f_{cal} is less than f_{tab}. However, reject null hypothesis and accept alternate hypothesis if f_{cal} is greater than f_{tab}.
$f_{(03,126)}$ 2.70 ; f_{cal} = 5.447   5.447 > 2.70; f_{cal} > f_{tab}

Therefore, we reject the null hypothesis and accept the alternate hypothesis. This implies that financial leverage affects firm size significantly.

Hypothesis 3

H_o: There is no relationship between financial leverage and liquidity of selected deposit money banks in Nigeria.

Table 7 Model Summary for financial leverage and liquidity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.135[a]	.018	-.005	17.98791

a. Predictors: (Constant), Interest coverage ratio, Debt Equity ratio, Debt ratio
Source: Computer generated print out from SPSS Version 20

Table 8 ANOVA table for financial leverage and liquidity

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	760.468	3	253.489	.783	.505[b]
	Residual	40769.191	126	323.565		
	Total	41529.659	129			

a. Dependent Variable: Current ratio
b. Predictors: (Constant), Interest coverage ratio, Debt Equity ratio, Debt ratio

Source: Computer generated print out from SPSS Version 20

Table 9 Table of Regression Coefficients for financial leverage and liquidity

	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.857	1.844		1.549	.124
	Debt ratio	.592	.833	.171	.711	.479
	Debt Equity ratio	-.056	.071	-.189	-.787	.433
	Interest coverage ratio	1.314	.989	.118	1.328	.186

a. Dependent Variable: Current ratio

Source: Computer generated print out from SPSS Version 20

The intercept of the equation that represents the other variables that affect the change relationship is 2.857 at 0.124 significance level which is higher than 0.05, the adopted level. The financial leverage measures also do not depict significance as the significance values for each of them are greater than 0.05. The values of R- squared & the adjusted R- squared in the model summary table (0.018 and -0.005) explains that the model has very low predictor power. The f statistic reads 0.783 at 0.05 level of significance as shown in Table7. The alternate hypothesis is rejected and the null hypothesis accepted because calculated f value is less than critical f value. Thus, the liquidity of banks is not affected by financial leverage.

Decision Rule: Accept null hypothesis if f_{cal} is less than f_{tab}. However, reject null hypothesis and accept alternate hypothesis if f_{cal} is greater than f_{tab}.
$f_{(03,126)}$ 2.70 ; f_{cal} = 0.783   0.783 < 2.70; f_{cal} < f_{tab}

Therefore, we reject the alternate hypothesis and accept the null hypothesis that there is no relationship between financial leverage and liquidity of banks.

Hypothesis 4

H_o: Financial leverage does not have any effect on the efficiency of banks measured by Assets Turnover Ratio.

Table 10 Model Summary for financial leverage and efficiency

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416[a]	.173	.154	24.87386

a. Predictors: (Constant), Interest coverage ratio, Debt Equity ratio, Debt ratio

Source: Computer generated print out from SPSS Version 20

Table 11 ANOVA table for financial leverage and efficiency

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16329.634	3	5443.211	8.798	.000[b]
	Residual	77957.334	126	618.709		
	Total	94286.968	129			

a. Dependent Variable: Asset turnover ratio
b. Predictors: (Constant), Interest coverage ratio, Debt Equity ratio, Debt ratio
Source: Computer generated print out from SPSS Version 20

Table 12 Table of Regression Coefficients for financial leverage and efficiency

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.965	2.550		1.555	.122
	Debt ratio	-.234	1.152	-.045	-.203	.840
	Debt Equity ratio	.205	.099	.458	2.075	.040
	Interest coverage ratio	.076	1.368	.005	.056	.956

a. Dependent Variable: Asset turnover ratio
Source: Computer generated print out from SPSS Version 20

Table 12 shows the regression analysis for efficiency and financial leverage. The result showed that debt ratio had negative effect and interest coverage ratio had positive effect though the effects were not found to be significant as calculated t statistics was -0.203 and 0.056 at 0.840 and 0.956 significance value, both greater than adopted level of significance. The result showed that the model depicts that 17.3 percent variation in the efficiency of banks is explained by financial leverage with R^2 at 0.173. The f-value of the model (Table 4.10) suggested that the overall model is statically significant because it has a value higher than the critical value at 5% level of significance.

The coefficient of determination (R^2 is 0.608) indicating that capital structure, liquidity risk and credit risk account for 60.8% of variation in the performance (return on equity) of banks in Nigeria. The remaining 39.2% unexplained variable is largely due to variation in other variables outside the regression model which are otherwise included in the stochastic error term. The overall regression model is statistically significant in terms of its overall goodness of fit (f =8.8798, P=sig=0.000< 0.05).

Decision Rule: Accept null hypothesis if f_{cal} is less than f_{tab}. However, reject null hypothesis and accept alternate hypothesis if f_{cal} is greater than f_{tab}.
$f_{(03,126)}$ 2.70 ; f_{cal} = 8.798   8.798 < 2.70; f_{cal} < f_{tab}

Therefore, we reject the null hypothesis and accept the alternate hypothesis that financial leverage has significant effect on the efficiency of banks measured by Assets Turnover Ratio.

DISCUSSION OF FINDINGS

Results showed that financial leverage significantly affect profitability. Long term loans have lower cost than equity and have interest accrued to them. This interest is fixed irrespective of the company's rate of return. These interests charged reduce the amount of tax remitted and increase profit after tax. The more leverage a bank employs, the more profitable it becomes. This is consistent with the findings of Njeri and Kagiri (2013), Abdul and Adelabu (2015), and Abubakar (2015). The findings of Wabwile, Chitiavi, Alalaand Douglas

(2014) showed negative effect between financial leverage and profitability. Enekwe, Agu and Eziedo (2014) however found no significance.

Financial leverage was found to have significant effect on size. In other words, banks increased in size measured by total assets because they included debt in capital structure which is in agreement with Mule and Mukras (2015) positive effects.

Liquidity performance of banks are not affected by financial leverage. The availability of working capital and the working capital management practices of the banks are virtually independent of whether debt is included in the capital structure or not. Mule and Mukras (2015) on the contrary, found negative relationship while Alkhatib (2012) found positive significant relationship. Results revealed that efficiency of banks increased with financial leverage even though it was not too significant.

Summary of Findings, Conclusion and Recommendations

Summary of Findings

After the analyses of collated data for the study, the following were found:

1. Financial leverage affects the profitability of banks significantly by reducing taxable income via interest payments.
2. Financial leverage has a significant effect on the size of banks.
3. Financial leverage has no significant effect on the liquidity of banks.
4. Financial leverage has a significant effect on the efficiency of banks as management strives to ensure resources are employed to pay interests and still be profitable.

Implication of Findings

From the findings of the study, financial leverage was found to significantly affect the profitability of banks also resulting from the inclusion of debt in financing which boosts profitability level as well as tax shields that stem from interests accrued to debts. The implication of this findings is that the profit a bank makes is significantly determined by their debt to equity mix. However, with reference to the trade-off theory of capital structure, financial managers have to determine the optimal debt level to strike a balance between the benefits and costs of debt.

The study found that financial leverage significantly influences the size of banks. Liquidity is affected by the existence of sound techniques of managing current assets to ensure that neither insufficient nor unnecessary funds are invested in current assets and a balance is maintained between short-term assets and short-term liabilities.

Efficiency was also found to improve with financial leverage. This is likely so because interests have to be paid on debts and thus, management would employ resources in ways that would yield higher benefits at least cost to still be profitable after interest is paid.

CONCLUSION

Overall, the findings on the studied banks for ten years provide evidence that financial leverage has effect on different areas of bank performance. The results show that profitability and efficiency are significantly affected by financial leverage. Conclusively, financial leverage certainly affects financial performance especially in terms of profitability.

Recommendations

The following recommendations were made:

1. Debt should be employed in such capacity that the costs do not outweigh the benefits.
2. Management should ensure that financial decisions taken are in consonance with the shareholders' wealth maximization objectives which encompasses the profit maximization objective of the firm

Contribution to Knowledge

There has been several research effort to establish the relationship that exists between financial leverage and firm's financial performance, however the search to know more with increasingly available data is a continuum and this present study has contributed to knowledge in the following areas;

1. The previous related literature reviewed in this study reveals the paucity of empirical evidence to establish the effect of financial leverage of quoted commercial banks on liquidity and efficiency. This present study has made a significant contribution to knowledge by revealing not just how financial leverage of quoted commercial banks affect their liquidity and efficiency but also the implication of such effects.
2. To the best of the researcher's knowledge and in view of the several research efforts that have been invested in this area of study, the latest period covered by previous related studies is 2013. The researchers consider this study as having significantly contributed to knowledge by providing updated empirical evidence (2014-2015) in Nigeria to explain the performance of banks with respect to their financial leverage based on prevailing circumstances and available data after the bank consolidated exercise and global financial recession of 2005-2010
3. In addition to the aforementioned contributions, this study has also developed empirical models for predicting future performance of firms especially in the banking sector at a particular mix of debt and equity as stated below.

$ROCE = \beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
$SIZE = \beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
$CR = \beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
$ATR = \beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$
$TQ = \beta_0 + \beta_1 DR_j + \beta_2 DER_j + \beta_3 ICR_j + \varepsilon_j$

Suggestion for Further Studies

The findings of this study have exposed other areas of research that will help the understanding of the effect of the mix of debt and equity finance on the performance of Nigerian banks. Further studies could be focused on the following areas;

1. Considering the impact of economic variables on the performance of businesses, further research could incorporate important macro-economic factors, for instance non debt tax shield could be adjusted for inflation to find out the actual economic depreciation.
2. Notwithstanding concrete evidence established by the study, this study can be improved upon if the cross-section dimension (number of firm from different sectors) and time dimension (timeframe) are increased to have greater number of observation. Also adoption of market performance measures could strengthen the deduction on the impact of financial leverage on bank performance.

References

Abdul, A. & Adelabu, I. T. (2015), Impact of Financial Leverage on Firm Performance: Evaluation of Total Nigeria Plc, *International Journal of Science Commerce And Humanities,* 3(6).

Abubakar, A., (2015), Relationship between Financial Leverage and Financial Performance of Deposit Money Banks in Nigeria, *International Journal Of Economics, Commerce And Management*, 3(10).

Aggarwal, R., Drake, P.P., Kobor, A., & Noronha, G. (2011) Capital structure in corporate finance, *CFA level II Program curriculum, Vol 3* Pearson Learning Solutions, Pp. 99-132

Agyei, S.K. & Yeboah, B. (2011), Working Capital Management and Profitability of Banks in Ghana, *British Journal of Economics, Finance and Management Sciences, 2* (2).

Akinmulegun, S.O. (2012). The Effect of Financial Leverage on Corporate Performance of some Selected Companies in Nigeria. *Canadian Social Science,8*(1), 85-91.

Alkhatib, K. (2012) The Determinants of Leverage of Listed Companies, *International Journal of Business and Social Science.* 3(24): 78-83.

Almajali .Y.A., Alamro, A.S. & Al-Soub, Z.Y., (2012), Factors Affecting the Financial Performance of Jordanian Insurance Companies Listed at Amman Stock Exchange, *Journal of Management Research*, 4(2), 226-289

Andy, C.W.C, Chuck, C.Y.K., & Alison, E.L. (2002). The Determination of Capital Structure: Is National Culture a Missing Piece of the Puzzle? *Journal of International Business Studies*, 33, 19- 32.

Banerjee, B. (2009), Fundamentals of Financial Management, New Delhi: PHI Learning Private Limited.

Bei Z. & Wijewardana, W.P. (2012) Financial leverage, firm growth and financial strength in listed companies in Sri Lanka. *Procedia- social and behavioural scinces 40*(2012) Pp 709-715

Bhunia, A. & Das, A. (2012), Affiliation between Working Capital Management and Profitability. *Interdisciplinary Journal of Contemporary Research in Business,* 3(9), 957-968.

Eljelly, A. (2004), Liquidity-profitability tradeoff: An empirical investigation in an emerging market. *International Journal of Commerce & Management*, 14(2), 48-61

Enekwe, C.I., Agu, C.I. & Eziedo, (2014), The Effect of Financial Leverage on Financial Performance: Evidence of Quoted Pharmaceutical Companies in Nigeria, *IOSR Journal of Economics and Finance 5(3)*.

Ezeamama, M.C (2010), Fundamentals of Financial Management: A practical guide. Enugu: EMA press Ltd.

Gatsi, J.G., Gadzo, S.G. & Akoto, R.K. (2013), Degree of Financial and Operating Leverage and Profitability of Insurance Firms in Ghana. *Canadian International Business and Management,* 7(2): 57-65.

Gweji, M.O., & Karanja, J. (2014), Effect of Financial Leverage on Financial Performance of Deposit Taking Savings and Credit Co-operative in Kenya, *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4 (2), 180- 188.

Iswatia, S., & Anshoria, M., (2007), The Influence of Intellectual Capital to Financial Performance at Insurance Companies in Jakarta Stock Exchange (JSE), *Proceedings of the 13th Asia Pacific Management Conference.* Melbourne.

Jensen, M. (1986), Agency Costs of Free Cash Flow, Corporate Finance and Takeovers, *American Economic Review*, 86 (2), 323- 329.

Jong, A., Verbeek, M. & Verwijmeren, P., (2011) Firms' Debt–Equity Decisions When the Static Trade-Off Theory and The Pecking Order Theory Disagree, *Journal of Banking and Finance*, 35(5): 1303-1314.

Mazur, K (2007) The Determinants of Capital Structure Choice: Evidence from Polish Companies. *International Advanced Economic Research Journal*, 13(4), 495-514.

Mule, R.K. & Mukras, M.S., (2015), Financial Leverage and Performance of Listed Firms in a Frontier Market: Panel Evidence from Kenya, *European Scientific Journal,* 11(7)

Myers S.C. & Brealey, R.A. (2002) Principle of corporate finance. Seventh edition, Irwin McGraw-Hill

Myers, S. C. (2001). Capital structure, *Journal of Economics Perspectives, 15*(2), 81-102.

Njeri, M.M.K. & Kagiri, A.W. (2013), Effect of Capital Structure on Financial Performance of Banking Institutions Listed in Nairobi Securities Exchange, *International Journal of Science and Research*.

Nwude, C., (2003), Basic Principles of Financial Management. Enugu: Chuke Nwabude Nigeria.

Omondi, M.M. & Muturi, W., (2013), Factors Affecting the Financial Performance of Listed Companies at the Nairobi Securities Exchange in Kenya, *Research Journal of Finance and Accounting*, 4(15).

Ongore, V.O. & Kusa, G.B. (2013), Determinants of Financial Performance of Commercial Banks in Kenya, International Journal of Economics and Financial Issues, 3(1).

Pandey, I.M (2010). Financial Management, New Delhi: Vikas Publishing House Limited.

Rodrigo (2015) Capital structure irrelevance theorem and asymmetric information. *The writepass journal* March 5, 2015

Thaddeus, E.O., & Chigbu, E.E. (2012), Analysis of Effect of Financing Leverage on Bank Performance: Evidence from Nigeria*, Journal of Public Administration and Governance*, 2 (4), 178- 187.

Van Horne, J.C & Wachowicz, J.M. (2000), Fundamentals of Financial Management. (*11th Edition).* New Jersey: Prentice Hall Inc.

Wabwile, E.C., Chitiavi, M.C., Alala, B.O. & Douglas, M., (2014), Financial Leverage and Performance Variance A Mong Banks. Evidence of Tier 1 Commercial Banks Listed On Nairobi Security Exchange Kenya, *International Journal of Business and Management Invention, 3(4).*

****