

# Effect of Retained Earnings, Cash Reserve Ratio and Statutory Reserve on Earnings of Deposit Money Banks in Nigeria

Okeke Hyginus Odinaka Department of Accountancy Enugu State University of Science and Technology, Enugu Nigeria

Publication Process Date	
Received November 9, 2020	
Accepted November 26, 2020	
Published November 30, 2020	

## ABSTRACT

This study seeks to evaluate the effect of retained earnings, cash reserve ratio and statutory reserve on the earnings of deposit money banks in Nigeria from 2008 to 2019. The specific objectives of the study are to: i. Analyze the effect of retained earnings on earnings per share of deposit money banks in Nigeria. ii Ascertain the effect of cash reserve ratio on earnings per share of deposit money banks in Nigeria iii. Appraise the effect of statutory reserve on earnings per share of deposit money banks in Nigeria. The study was an ex-post facto research design as historical data were collected from the published annual reports and financial statements of nine (9) deposit money banks listed on the Nigeria Stock Exchange during the period. The major statistical tool of analysis used in the study include, panel data regression analysis, spearman rank-order correlation analysis, t-statistics and descriptive statistics. Findings from the study suggest that, retained earnings and statutory reserve positively and significantly affect earnings per share of banks during the period.

**Keywords:** Retained Earnings, Cash Reserve Ratio, Statutory Reserve, Earnings Per Share, Deposit Money Banks and Nigeria

## 1. Introduction

Deposit money banks attempt to maximize earnings and wealth for their shareholders and to stabilize countries economy through the process of financial intermediation. Financial intermediation involves collecting deposits from the surplus economic units and lending same to the deficit economic units. As a result of the importance of the banking sector in the economy of nations, banking regulations around the World require banks to be adequately capitalized and also liquid to engage in financial intermediation. Thus, capital adequacy and liquidity are the two critical requirements for banks to play their role of economic stabilization. The need for capital adequacy in banks led to the establishment of the Basel Committee in 1988 which introduced capital adequacy regulation in internationally active banks. Initially, the Committee required globally active banks to maintain a minimum capital equal to 8% of risk adjusted assets, with capital consisting of tier one and tier two capitals. Tier one capital consists of ordinary share capital and disclosed reserves (Jacobson, Linde & Roszbach, 2002). Thus, Paid-up share capital, retained earnings, statutory and other reserves appears to be the most significant part of a bank's capital prompting bank regulators to rank them as 'tier one' capital (Nicholas, 2003). This study, however, is focused on retention earnings, cash reserve ratio and statutory reserve and their effects on earnings of deposit money banks in Nigeria.

## International Journal of Advanced Finance and Accounting | IJAFA Vol. 1., No. 2. | November, 2020 | pp. 1-19 https://airjournal.org/ijafa

As already noted, one of the most important component of core capital is retained earnings. Retained earnings falls under disclosed reserve in the core capital of banks. Dinayak (2014) defines retained earnings as that part of trading profits which is not distributed as dividends to shareholders of a firm, but is rather retained in the business by the directors for future expansion. Campbell (2012) also states that most executives generally prefers cash from operations as a major source of capital for re-investment and growth. Consequently, some organizations prefer to retain more earnings and plow it back into operations especially when they have viable investment opportunities. Yemi & Seriki (2018) say that retained earnings is another way to evaluate the effectiveness of management to bring improvement in market value of their firms as shareholders now consider the extent to which firms use retained capital in deciding whether to invest in a firm or not. Available literature does not present a consensus on how retained earnings affect banks' earnings. Some studies opine that retained earnings affect bank earnings positively while other indicate a negative effect. However, most studies indicate positive effect. For instance, Abuzarqa (2019) found that retained earnings to total assets ratio have a strong significant impact on return on assets of deposit money banks in Kuwait.

Another important component of disclosed reserve is statutory reserve. Bharda (2018) describes statutory reserve as the amount of money that deposit money banks are requirement by regulation to set aside from its annual profit after tax. The purpose is to cushion the effect of any claim or financial loss on the capital of the banks. Nigerian banking regulations require the banks to make an annual appropriation to a statutory reserve. As stipulated by Section 16(1) of the Banks and Other Financial Institution Act of Nigeria (BOFIA 1991), an appropriation of 30% of profit after tax is made if the statutory reserve is less than the paid-up share capital and 15% of profit after tax if the statutory reserve is greater than the paid-up share capital. The purpose of this reserve is to ensuring that the amount of the reserve fund of banks is sufficient for the purpose of its business and adequate in relation to its liabilities (BOFIA, 1991). Rao (2006) observed that statutory reserve and cash reserve requirement are insignificant in explaining the relationship between profitability and the monetary policy instrument in public sector banks of India.

A bank reserve that acts as a shock absorber in terms of liquidity is cash reserve ratio. Elliott (2014) describes cash reserve ratio as a specified minimum percentage of the total deposits liability that money deposit banks have to hold as reserves either in cash or as deposits with the central bank. It is set in accordance with the guidelines of the central bank\_of a country. The amount so specified is held in cash and cash equivalents and kept with the central bank of the country. Tulsian (2014) states that the primary object of this regulation is to facilitate deposit money banks' liquidity management and to ensure that the banks are liquid enough to meet their short-term business obligations, particularly depositors' withdrawal of funds. The central banks also use the cash reserve ratio regulation to adjust the amount of money circulating in the economy. Thus, the central bank can increase or decrease the cash reserves of the banks depending on the volume of money in circulation. Jembere (2014) also opines that cash reserve ratio are normally held at the central bank in the form of cash or highly liquid sovereign paper. The regulation usually specifies the size of the requirement according to deposit type, demand or time deposit and its currency denomination, domestic or foreign currency and also sets the holding period relative to the reserve statement period for which the reserve ratio is computed. Considering that cash reserve is held in the central bank at no interest for the banks, its effect on banks' earnings is not clear. Abid & Lodhi (2015) state that an increase in cash reserve requirement has negative impact on banks' profitability in Pakistan. Oganda (2018) concludes that cash reserves requirement had a strong negative correlation with return on equity of Kenyan banks. Nhan, Ngoc & Ha (2017) reported that cash reserve has a significant positive impact on bank's profit in Vietnam.

The dependent variable of the study and proxy for banks'earnings is earnings per share. Kelley & Hora (2008) define earnings per share as a profitability ratio that provide information to firm investors about the value of a unit of share and the amount they have earned from every kobo share invested in the firm. Sanjeet (2011) argue that earning per share is the strongest determinant of the market value in a constructive track prompting investors to take earnings per shares variable into account before investing in any firm. Slam, Khan, Choudhury & Adnan (2014) opine that the figure for earnings per share can be computed simply by dividing net income earned in a given reporting period by the total number of shares outstanding during the same term or is calculated by dividing earnings after interest, depreciation and tax by total number of shares outstanding.

#### **1.2 Statement of the Problem**

The importance of banks reserves such as retained earnings, cash reserve and statutory reserve cannot be overemphasized. They are the primary sources of funds and liquidity for depose money banks. As an internal source of fund, reserves are more dependable than external sources as it doesn't dependent on investors' preference and market conditions. It influences the level of bank lending, deposit rate and the quantity of credit and deposits. Reserves are economical and convenient source of finance for banks as the reserves do not involve any expenses or legal formalities to make them available for bank use. It does not create any fixed charge on the assets of a firm as in the case of borrowed funds. There is no fixed burden of dividend payment as in the case with share capital. The use of reserve as a source of fund does not dilute the ownership of the firm. Cash reserves ratio in conjunction with other reserves provides a useful buffer against unexpected occurrences in the money market. Reserve are important in financing new projects, innovations, new products development and business expansion. In addition, deposit money banks use retained profit to write off bad loans.

Notwithstanding the importance and benefits of bank reserves, a bank having a large amount of reserves and retained profits often prompt bank management to misuse funds as free cash flow for personal benefits. This development among others has been responsible for the failure of a number of deposit money banks in country in the past and has also led to financial instability in the Nigeria economy. It is in light of this that this researcher work is conducted to evaluate the effect of retained earnings, cash reserve ratio and statutory reserve on earnings of deposit money banks in Nigeria.

#### 1.3 Objectives of the Study

The main objective of this study is to evaluate the effect of retained earnings, cash reserve ratio and statutory reserve on earnings of deposit money banks in Nigeria. The specific objectives of the study are to:

- i. Analyze the effect of retained earnings on earnings per share of deposit money banks in Nigeria
- ii. Ascertain the effect of cash reserve ratio on earnings per share of deposit money banks in Nigeria.
- iii. Appraise the effect of statutory reserve on earnings per share of deposit money banks in Nigeria.

#### **1.4 Research Questions**

- i. How does retained earnings affect earnings per share of deposit money banks in Nigeria?
- ii. What is the effect of cash reserve ratio on earnings per share of deposit money banks in Nigeria?
- iii. To what extent does statutory reserve affect earnings per share of deposit money banks in Nigeria?

## **1.5 Statement of the Hypotheses**

- i. H<sub>0</sub>: retained earnings does not significantly affect earnings per share of deposit money banks in Nigeria.
- ii. H<sub>0</sub>: cash reserve ratio does not significantly affect earnings per share of deposit money banks in Nigeria.
- iii. H<sub>0</sub>: Statutory reserve does not significantly affect earnings per share of deposit money banks in Nigeria.

## 1.6 Scope of the Study

The scope of the study is on the effect of retained earnings, cash reserve ratio and statutory reserve on the earnings of deposit money banks in Nigeria starting from 2008 to 2019. Thirteen (13) deposit money banks listed on the Nigeria Stock Exchange during the period were targeted, out of which nine (9) were selected. Since the variables of the study are readily available in all the deposit money banks, a simple random sampling technique was adopted in selecting the banks. The banks selected are: First Bank Nigeria Plc, Fidelity Bank Nigeria Plc, United Bank for Africa Plc, Zenith Bank Nigeria Plc and Union Bank Nigeria Plc. Others are: Sterling Bank Nigeria Plc, First City Monument Bank Nigeria Plc, Access Bank Nigeria Plc, and Guarantee Trust Bank Nigeria Plc.

#### 1.7 Limitations of the Study

The researcher encountered some limitations during the study. Stated hereunder are the major limitations and how they were resolved:

- i. Firstly, the cash reserve ratio (CRR) for public sector deposit differs from that of the private sector deposits in some years of the study. However, the financial statement of some of the selected banks did not differentiate between public sector deposit and private sector deposit. In view of this, the CRR for private sector deposits was applied to the total deposit liability of each bank throughout the period in arriving at the CRR for each bank.
- ii. Secondly, the Central Bank of Nigeria (CBN) through its Monetary Policy Committee, publishes CRR quarterly in its Communique on Monetary Policy. The CRR is sometimes reviewed more than four times in a year depending on the situation of the economy and the policy objectives that the CBN pursued at the time. Because of the multiple rate each year, this study settled for the last CRR rate in each year in arriving at the CRR amount for the year.

#### 2. Review of Related Literature

#### 2.1 Conceptual Review

#### 2.1.1 Retained Earnings

Dinayak (2014) defines retained earnings as that part of trading profits which is not distributed as dividends to the shareholders of a firm, but is rather retained in the firm for purpose of future expansion of the firm. Retained earnings are usually recorded under shareholders' equity section in the statement of financial position of a firm. Thus, retained earnings is regarded as part of the equity of a firm. Chasan (2012) asserts that as a result of agency conflict in firms, there is always a disagreement between firm managers and shareholders in determining the ratio of earning to be retained by firms. While the firm managers want a higher earnings retention ratio, firm shareholders would think otherwise, as the higher the retention ratio, the more uncertain their control over their shares and finances. In banks, there is little or no distinction between retained earnings and capital because all amounts contributed by common stockholders over the nominal value of their equity goes into the retained earnings account. Akinkoye & Akinadewo (2018) states that the amount of retained earnings has now become an important issue to investors and other stakeholders because it is another way to evaluate the effectiveness of management to bring improvement in market value of their firms. In other words, shareholders now consider as part of their investment criteria the extent to which firms use retained capital and they also consider this in measuring how much value in terms of capital gain, business growth and asset net worth have been added by the company's retention of capital overtime. Before buying, investors normally ask themselves not only whether a firm can make profits, but whether management can be trusted to generate growth with those profits. Today, particular attention is placed on the distinctive role that retained earnings can play in predicting future cash flows by the investing community and the biggest reason for the attention to earnings lies with the notion that retained earnings serves as a predictor of future cash flows.

## 2.1.2 Cash Reserve Ratio

Amadeo (2020) describes cash reserve ratio as a percentage of a bank's deposits liability which deposit money banks and other banks are required by banking regulation to set aside to meet emergency situations such as unexpected cash withdrawal by depositors. In some countries, the cash reserve requirement applies to money deposit banks, savings banks, loan associations and credit unions. Thus, as a means of ensuring the safety of nation's financial institutions, the central bank sets reserve requirements so that banks always have some money on hand to prevent a run on the bank. Gray (2011) says that the objectives of cash reserve ratio are, for prudential management of

## International Journal of Advanced Finance and Accounting | IJAFA Vol. 1., No. 2. | November, 2020 | pp. 1-19 https://airjournal.org/ijafa

deposits, monetary policy, and liquidity management. With respect to prudential management, banks hold reserves in order to meet demand for short-term liquidity. Regarding monetary policy, reserve requirement allows the central bank to control the money supply through the money multiplier and also to control the interest rate and the availability of credit. Liquidity management is a situation in which banks have to satisfy require reserve and have to decide the optimal amount of reserves to hold. Emmanuel & Olutoye (2015) opine that reserve ratio is applied as a liquidity and credit policy tool with a macro prudential perspective and it is widely accepted that cash reserve ratios is a supplemental monetary policy tool for macroeconomic purposes. In several countries, the reserve requirement ratio is the main monetary policy instrument and central banks' policy toolkit. Oganda, Mogwambo & Otieno (2018) also affirm that cash reserve ratio is the percentage of total deposits that deposit money banks are mandated to keep with Central Bank. In Nigerian context, cash reserve requirement (CRR) is set at different percentage between the private and public sector fund from 2013-2014 and was harmonized in 2015 (Central Bank of Nigeria Communiqué No. 98 & 101). This is so in order to stimulate banks to be more proactive in performing their role of financial intermediation rather than depending much on government fund as their main source of deposit. In most countries, including Nigeria, the central bank is responsible for watching over the cash reserve ratio. Tulsian (2014) states that the laws requiring banks and other depository institutions to hold a certain fraction of their deposits in reserve, in very safe, secure assets, have been a part of banking history for many years and that the objective of the reserve ratio is to help ensure the liquidity of banks, particularly during times of financial strains.

#### 2.1.3 Statutory Reserve

A statutory reserve is an amount of money set aside by a financial institution, such as a bank or insurance firm, in order to meet unmatured obligations. It is a component of the statement of financial position for financial institutions and can be in the form of anything easily convertible to cash, such as marketable securities. One of the most important priorities for financial institutions is to stay solvent and financially stable. Part of that means maintaining enough liquid assets (such as cash or marketable securities) in a statutory reserve to ensure they can meet their financial obligation (CBN Statutory Bulletin, 2016). Nigerian banking regulations require the bank to make an annual appropriation to a statutory reserve. As stipulated by Section 16(1) of the Banks and Other Financial Institution Act of Nigeria (BOFIA 1991), an appropriation of 30% of profit after tax is made if the statutory reserve is less than paid-up share capital and 15% of profit after tax if the statutory reserve is greater than the paid-up share capital. Section 16(1) of BOFIA clearly states that every bank shall maintain a reserve fund and shall, out of its net profits for each year (after due provision made for taxation) and before any dividend is declared, where the amount of the reserve funds is (a) less than the paid-up share capital, transfer to the reserve fund a sum equal to not less than 30% of the net profits; or(b) equal to or in excess of the paid-up share capital, transfer to the reserve fund a sum equal to not less than 15% of the net profit: Provided that no transfer under this subsection shall be made until all identifiable losses have been made good. Any bank which fails to comply with the provisions of subsection (1) of this section is guilty of an offence and liable on conviction to a fine of N500,000. The purpose of this reserve is to ensuring that the amount of the reserve fund of banks is sufficient for the purpose of its business and adequate in relation to its liabilities (BOFIA, 1991).

#### 2.1.4 Banks' Earnings

Sean (2020) defines earnings as the net value a firm has achieved from operating activities for a specific reporting period. Banks get most of their revenue from the lending business or interest income. In the light of this, Ugoani, 2016) opine that banks provide fee-based financial services that generate earnings in form of interest and commission among others. Earnings performance allows the bank to remain competitive and profitable. A bank's earnings indicate the extent to which the bank management is putting its assets into productive use. Thus, regular and consistent earnings are essential to the sustainability and profitability of banks. In effect, good earnings are the oil that allows the bank to remain viable. Earnings are the initial safeguard against the risks of engaging in the banking business, and represent the first line defense against capital depletion. It allows the bank to remain competitive and profitable. An analysis of bank earnings is often critical for the success of a bank and the return on assets is a common starting point for analyzing earnings because it gives an indication of the return on the bank's overall activities. Al-Tamimi (2010) state that the factors influencing banks' earnings can be divide into two main factors, internal and ACADEMIC INK REVIEW | ODINAKA, 2020

external factors. Internal factors are affected by the banks' management policies and decisions. External factors on the other hand are the macroeconomic indicators, and they reflect the economic environment where banks operate such as gross domestic product, inflation rate and so on. Examples of internal factors are leverage, total deposit to total assets, total loans to total assets, retained earnings to total assets, and tangible book value per share. Syükse, Mukhtarov, Mammadov, & Özsarı, (2018) affirm that bank profitability is a function of both micro and macro-economic variables. The micro variables are made up bank size, bank capital, risk management, expense management, marketable securities and non-performing loans. Inflation rate, interest rate, gross domestic product and tax rate are examples of macro variable. Umobong (2015) says that firm earnings can be measured by means of profitability ratios. They ratios are used by investors and analysts in combination with investment ratios to make investment decisions. Some of the profitability ratios include: return on capital employed, return on assets, return on equity, net profit margin, gross profit margin, earnings per share, dividend per share and so on. This study adopted earnings per share as the dependent variable and a measure of banks' earnings.

## 2.1.5 Earnings Per Share

Coleman (2017) describes earnings per share as the portion of a firm's profit that is allocated to every individual share of the stock. It is a term that is of much importance to investors and people who trade in the stock market. The higher the earnings per share of a firm, the better is the profitability of the firm. Jatoi, Shabir, Hamad, Iqbal & Muhammad (2014) asserts that earnings per share are usually derived by dividing earring (after deduction of tax, interest, dividend and depreciation) by the total number of ordinary shares outstanding. Earnings per share is a market indicator which the stock brokers and investors will have to watch carefully before deciding the market value of the equity share of a firm. Sanjeet (2011) argue that earning per share is the strongest determinant of the market value in a constructive track, thus, investors take earnings per shares variable into account before investing in any firm. Sean (2020) opines that investors care about earnings because they ultimately drive stock prices. Strong earnings generally result in the stock price moving up (and vice versa). Sometimes a firm with a rocketing stock price might not be making much money, but the rising price means that investors are hoping that the firm will be profitable in the future. Of course, there are no guarantees that the firm will fulfill investors' current expectations. Sumangala (2012) also suggests that earnings per share is an important variable affecting the market value of equity share. Therefore, once a successful firm starts building up reserves it will also look for expanding its scale of operations and thus increase its earnings. Once a firm starts earning attractive sum, the equity share will have more and more demand which will result in increase in market value of the equity. In recognition of the importance of earning per share to investors, Financial Standard Accounting Board (FASB 1997), now requires the disclosure of basic and diluted earnings per share by firms. The primary objective was to supply users of financial statement with two extreme figures, one with no dilution and one with full dilution. This change was intended to help the investor to better assess the effect of potential dilution than that achieved under primary earnings per share, which requires the inclusion of ordinary shares equivalent in the computation.

#### 2.2 Theoretical Framework

## **Pecking Order Theory**

This theory was propounded by Myers and Majluf (1984). The theory asserts that firms show preference for using internal finance (like retained earnings and reserves) over external finance. If internal funds are not enough to fund investment opportunities, firms may or may not acquire external financing, and if they do, they will choose among the different external finance sources in such a way as to minimize additional costs of asymmetric information. The resulting pecking order of financing is as follows: internally generated funds first, followed by respectively low-risk debt financing and share financing as the last option. Deposit money banks complies with this theory, firstly the fund operations with retained earnings and reserves. When reserves and not enough, they fall back cash reserve ratio with CBN before considering external borrowing and issue of shares. This study is therefore anchored on the Pecking Order Theory.

#### 2.3 Empirical Review

Using a comparative study between National Bank and Equity Bank, Kenya Oganda, Mogwambo & Otieno (2018) assessed the effect of cash reserves on performance of commercial banks in Kenya from 2007 to 2016. Specifically, the effects of cash reserves, customer deposits, non-performing loans and asset base on performance of commercial banks in Kenya were analyzed using descriptive statistics and correlation analysis. Both primary and secondary data were used for the study. Among other results, it was found that cash reserves had a strong negative correlation with return on equity of both National and Equity Banks. It was recommended that the banks should minimize cash reserves and instead invest this money in productive investments, diversify their sources of funding, diversify their investments of these funds.

Similarly, Bawa, Akinniyi & Njarendy (2018) analyze the effect of cash reserve ratio and money supply on the profitability of listed deposit money banks in Nigeria from 2002 to 2012. The data collected were analyzed using descriptive statistics and regression analysis. Findings suggest that cash reserve ratio has negative and insignificant impact on the earnings of the banks. Money supply, however, has a positive significant effect on the banks volume of loans and advances, interest rate and interest income.

Using time series data of 13 sampled commercial banks in Ethiopia, Atlaw (2017) studied the effect of reserve requirement on Ethiopian commercial banks' performance from 2004 to 2016. The specific objectives of the study were: effect of reserve requirement on commercial banks' profitability, effect of reserve requirement on commercial banks' profitability, effect of reserve requirement on commercial banks' lending capacity. Results from the linear regressions analysis suggest that cash reserve requirement has a negative effect on both commercial banks' profitability and lending capacity, thereby, affecting performance.

Nhan, Ngoc & Ha (2017) employed panel data regression analysis and conducted a study on the impact of monetary policy on commercial banks' profit in Vietnam from 2007 to2014. A sample of 20 listed commercial banks were collected for the study. Results from the data analysis reveal positive relationship between profit after tax with monetary base (MB), discount rate (DIS) and required reserve ratio (RRR). Among the measures of monetary policy, only MB has a significant positive impact on the banks' profit at 10% level of significance.

Using regression analysis, Maccarthy (2016) evaluated the effect of cash reserve ratio on the financial performance of commercial banks in Ghana and banks' level of engagement in corporate social responsibility in 2013. Twenty (20) Ghanaian listed commercial banks were sampled for the study. Findings suggest that cash reserve ratio positively relates with the financial performance of commercial banks, but it negatively relates to banks' level of engagement in corporate social responsibility. Also, cash reserve ratio significantly and strongly predicts financial performance of commercial banks in terms of return on investment.

Gemechu (2016) evaluated the effect of bank-specific, industry-specific and macroeconomic determinants on banks' profitability in Ethiopia from 2002 to 2012. The study applied 16 balanced panel data on eight (8) Ethiopian commercial banks selected for the study. Result from the panel data regression analysis suggests that there exists inverse relationship between reserve requirement and the profitability of the Ethiopian banks.

Using secondary data from Zenith Bank Nigeria Plc., Udeh (2015) explored the impact of monetary policy instruments on the profitability of commercial banks listed in Nigeria from 2005 to 2012. Descriptive research design was adopted whereby time series data were obtained from Zenith Bank Plc and Central Bank of Nigeria Statistical Bulletin. Pearson Product Moment Correlation Coefficient was used to analyze the data while t-test statistic was used particularly in testing the four null hypotheses formulated. Finding shows that cash reserve ratio, liquidity ratio and interest rate did not have significant impact on profit before tax of Zenith Bank Plc. However, minimum rediscount rate was found to have significant effect on the profit before tax of the bank.

Fatima & Samreen (2015) analyzed the relationship between reserve requirement ratio and banks' profitability in Pakistan from 2005 to 2014. The effect of cash reserve requirement (CRR) on commercial banks' profitability was

analyzed. Findings from the correlation and liner regression analysis indicate that CRR has significant inverse relationship with banks financial performance proxied with return on assets (ROA) and return on equity (ROE).

Abid & Lodhi (2015) studied the impact of changes in reserve requirement on banks profitability, using commercial banks operating in Pakistan from 2005 to 2014. Specifically, the study examined the relationship between reserve requirement ratio and banks profitability in Pakistan and how it affects return on equity (ROE) and return on asset (ROA) of the banks. The study adopted regression analysis using time series data of the 10 years. The regression analysis result shows that positive changes in reserve requirement have an inverse impact on banks profitability in Pakistan.

Using a balanced fixed effect panel regression model, Eden (2014) studied the impact of national bank regulation on banks' performance in private commercial banks operating in Ethiopia from 2004 to 2013. Six (6) private commercial banks operating in Ethiopia during the period were sampled for the study. Results of the panel data regression analysis shows that reserve requirement had negative and insignificant impact on the profitability of the sampled banks.

Arif & Anees (2012) sampled 22 banks from Pakistan and studied liquidity risk and performance of the banking from 2004 to 2009. Unstructured interviews were used to gather primary data while secondary data from annual reports was extracted while correlational analysis was used to analyze the data. The study found that an increase in cash reserves also increases the banks' earnings because adequate cash reserves help the bank to avoid fire sale risk and decrease the bank's reliance on the repo market thus reducing the cost associated with overnight borrowing.

Adebayo, Adeyanju & Olabode (2011) examined liquidity management and profitability of Commercial banks in Nigeria. The findings from correlation analysis indicate significant relationship between liquidity and profitability of the Nigeria banks. When banks hold adequate reserves, their profitability would improve. Adequate liquidity helps the bank minimize liquidity risk and financial crises. The bank can absorb any possible unforeseen financial position as result. However, when liquid assets are held excessively, profitability could diminish because they have little or no interest generating capacity.

Using descriptive analysis, Younus & Akhta (2009) conducted a study and analyzed the significance of statutory liquidity requirement (SLR) as a monetary policy instrument in commercial banks in Bangladesh. Results disclose that SLR has experienced infrequent changes and past evidence showed that reduction in SLR produced positive impact on bank credit and investment especially prior to the 1990s. Also, SLR and cash reserve requirement (CRR) were found to be significant tools of reducing inflation and both are used only in situation of drastic imbalance resulting from major shocks.

Using regression and correlation analysis, Rao (2006) investigated the impact of monetary policy on banks profitability in the financial sector of India. The lending rates have been found to have positive relationship with banks' profits which indicates a rise in lending rates will increase the profitability of the banks. When the bank rate, statutory reserve requirement and cash reserve requirement is included the regression coefficient is insignificant to explain the relationship between bank profitability and the monetary policy instrument in public sector banks.

Punita & Somaiya (2006) investigated the impact of monetary policy on the profitability of banks in India between 1995 and 2000. The monetary variables were bank rate, lending rates, cash reserve ratio and statutory ratio, and each regressed on banks' profitability independently. Lending rate was found to exact positive and significant influence on banks profitability, which indicates a fall in lending rates will reduce the profitability of the banks. Also bank cash reserve ratio and statutory ratio were found to have significantly negatively effect on banks 'profitability.

#### **3** Research Methodology

### 3.1 Research Design

The study is an *ex-post facto* research design. Thus, the data used was annual time series data obtained from the published annual report and financial statements of the selected deposit money banks in Nigeria from 2008-2019.

### 3.2 Sources of Data

Data source for the study is secondary data which were obtained from the published annual report and financial statements of the selected deposit money banks listed on the Nigeria Stock Exchange during the period of 2008-2019.

#### 3.3 Area of Study

This study was conducted in Nigeria and specifically on the selected deposit money banks listed on the Nigeria Stock Exchange from 2008-2019.

#### 3.4 Population of the Study

Thirteen (13) deposit money banks listed on the Nigeria Stock Exchange during the period constituted the population of the study.

#### 3.5 Sample of the Study

The thirteen (13) deposit money banks listed on the Nigeria Stock Exchange during the period of were targeted, out of which nine (9) were selected. Since the variables of the study are readily available in all the deposit money banks, a simple random sampling technique was adopted in selecting the banks. The banks selected are: First Bank Nigeria Plc, Fidelity Bank Nigeria Plc, United Bank for Africa Plc, Zenith Bank Nigeria Plc and Union Bank Nigeria Plc. Others are: Sterling Bank Nigeria Plc, First City Monument Bank Nigeria Plc, Access Bank Nigeria Plc, and Guarantee Trust Bank Nigeria Plc.

#### **3.6 Model Specification**

The model used for the study is the classical linear regression model of which the functional relation is specified thus: Yt = $\beta o + \beta 1X1 + \beta 2X2 + ... + \beta kXk + \epsilon t$  ......

Where,

Yt = Dependent or Response variable

X1, X2, ...,Xk = Independent or Explanatory variables.

 $\beta O$  = Constant

 $\beta$ 1,2,... $\beta$ k = Regression parameters or coefficients of the regression estimates.

εt = Error term

For this study precisely:

 $EPS = \beta_0 + \beta_1 (LRTE) + \beta_1 (LCRR) + \beta_1 (LSTR) + \varepsilon$ ACADEMIC INK REVIEW | ODINAKA, 2020

#### Where:

EPS = Earnings Per Share

LRTE = Log of Retained Earnings

LCRR = Log of Cash Reserve Ratio

LSTR = Log of Statutory Reserve

 $\beta$  = Beta

 $\epsilon$  = error term

#### 3.7 Research Variables

Variable Name	Label	Description	Data Source
Earnings Per Share EPS		EPS is a financial ratio, which divides net earnings available to common shareholders by the average outstanding shares	Annual Reports and Accounts
		over a certain period of time. The EPS formula indicates a	
		firm's ability to produce net profits for common	
		shareholders. EPS number is more valuable when analyzed	
		against other firms in the industry, and when compared to	
		the firm's share price (the P/E Ratio).	
Retained Earnings	LRTE	RTE are any profits that a firm decides to keep in the	Annual Reports
		business, as opposed to distributing them among	and Accounts
		shareholders in the form of dividends. RTE can be used to	
		expand existing operations, research and development,	
		equipment replacement, or debt reduction.	
Cash reserve Ratio LCRR		CRR is a central bank regulation that sets the minimum	Annual Reports
		amount of reserves that must be held by a deposit money	and Accounts
		bank. A financial institution that holds reserves in excess of	
		the required amount is said to hold excess reserves.	
Statutory Reserve	LSTR	STR is a portion of profits which any financial institution like	Annual Reports
		insurance company or banks are legally required to hold and	and Accounts
		maintain in compliance with the applicable laws and	
		regulations so as to meet future unmatured obligations and	
		contingencies and are generally held in the form of either	
		cash or high liquid marketable securities.	

## 3.8 Method of Data Analysis

Panel data regression analysis was adopted for the study. Correlation analysis, t-test and descriptive statistical were also used as supporting tool of analysis. Other statistical test conducted in the study include: R-Square test which was used to ascertain the extent by which the independent variables explain the dependent variable, Durbin Watson Statistics which was used to test for the presence of autocorrelation in the model of the study, Jarque-Bera Statistic, used to ascertain the normality or otherwise of the data set distribution and Hausman test, conducted to choose the appropriate model between fixed effect and random effect models. The independent variable of the study are, retained earnings, cash reserve ratio and statutory reserve while the dependent variables and measure of bank earrings is earnings per share.

Table 4.1: Descriptive S	EPS	RTE	CRR	STR
MEAN	1.541296	39729.56	253672.8	42858.71
MEDIAN	1.195000	22886.00	154133.4	25393.00
MAXIMUM	6.960000	412958.0	1224493.	298878.0
MINIMUM	-5.37	-274871	1639.270	1761.000
STD. DEV.	1.733050	111880.2	289697.1	52031.03
SKEWNESS	0.620912	-0.15172	1.371449	2.952093
KURTOSIS	6.294089	5.830975	3.992484	12.71099
JARQUE-BERA	55.76918	36.47923	38.28834	581.2323
PROBABILITY	0.000000	0.000000	0.000000	0.000000
SUM	166.4600	4290793.	27396658	4628741.
SUM SQ. DEV.	321.3706	1.34E+12	8.98E+12	2.90E+11
OBSERVATIONS	108	108	108	108

### 4.0 Data Analysis and Discussion of Results Table 4.1: Descriptive Statistics of the Variables

Source: Author's EView 8.0 Output

Table 4.1 shows the descriptive statistics of the four variables used in the study: earnings per share (EPS), retained earnings (RTE), cash reserve ratio (CRR) and statutory reserve (STR). The table presents the mean, median, maximum and minimum. Other results presented are the standard deviation, skewness, kurtosis and the Jargue-Bera test. Result from the table indicates that the mean of EPS, RTE, CRR and STR are 1.541296, 39729.56, 253672.8 and 42858.71 respectively.

The normal distribution test was conducted using, Jarque-Bera, Skewness and Kurtosis. From the table, the result of the normal distribution test showed that the probability of Jarque-Bera for all the variables is less than 0.05. This means that all the variables don't follow a normal distribution. The Kurtosis coefficient of the variables also corroborated this result as the variables indicate an abnormal distribution with coefficient higher than 3.5. However, the Skewness coefficients of EPS and RTE earnings are less than 1 while that of CRR and STR are greater than 1. This implies that the EPS and RTE frequencies are normal while that of CRR and STR are not normally distributed. Deviation results from the table shows that RTE and CRR exhibited a very high standard deviation, while EPS and STR have moderate standard deviations. This implies that EPS and STR are not easily unpredictable.

#### Table 4.2: Spearman Rank-Order Correlation Coefficients

Correlation Analysis: Spearman Rank-Order Date: 11/04/20 Time: 22:25 Sample: 1 108

		EPS	RTE	CRR	STR	
EPS	Pearson Correlation	1.0000				
	Sig. (2-tailed)	0.0000				
RTE	Pearson Correlation	0.6890	1.0000			
	Sig. (2-tailed)	0.0000	0.0000			
CRR	Pearson Correlation	0.5620	0.6665	1.0000		
	Sig. (2-tailed)	0.0000	0.0000	0.0000		
STR	Pearson Correlation	0.4920	0.4778	0.6783	1.0000	
	Sig. (2-tailed)	0.0000	0.0000	0.00000	0.0000	
Source: Au	Source: Author's EView 8.0 Output					

Table 4.2, presents the Spearman rank-order correlation analysis among the four variables of the study. Results from the analysis indicates that there is positive and significant relationship between retained earnings (RTE) and earnings per share (EPS) given the correlation coefficient of 0.689 which is significant at 0.5 level of significance (0.05>0.0000). The results also show that there is positive and significant relationship between cash reserve ratio (CRR) and earnings per share (EPS) from the correlation coefficient of 0.562 which is significant at 0.005 level of significance (0.5>0.000). Results further indicate a positive and significance relationship between statutory reserve (STR) and earnings per share, given the correlation coefficient of 0.492 which is also significant at 0.5 level of significance (0.05>0.000). Thus, the three independent variables, RTE, CRR and STR positively and significantly relate with EPS of deposit money banks in Nigeria during the period.

#### Table 4.3 Correlated Random Effects- Hausman Test

Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects

Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.		
Cross-section random		1.907264	3	0.5919		
Cross-section random effects test comparisons:						
Variable	Fixed	Random	Var(Diff.)	Prob.		
RTE CRR STR	0.038010 0.003365 0.159352	0.048902 0.002598 0.155194	0.000074 0.000006 0.000353	0.2041 0.7474 0.8249		

Source: Author's EView 8.0 Output

In order to confirm the appropriate model between Fixed Effects and Random Effects models, Hausman Specification Test was conducted and the result presented in table 3. The null hypothesis ( $H_0$ ) of the test is that Random Effect Model is the appropriate model for the study while the alternative hypothesis ( $H_1$ ) is that Fixed Effect Models is the appropriate model for the study.

H<sub>0</sub>: Random Effect Model is the appropriate model for the study. H<sub>1</sub>: Fixed Effect Models is the appropriate model for the study.

Result of the Hausman Specification test, suggests that Random Effect Regression Model is the appropriate model for the study. This is evidenced by the Hausman p-value of 0.5919 which is not significant at 0.05 level of significance (0.05<0.5919). In view of this, the null hypothesis is accepted while the alternative is rejected. Thus, Random Effect Regression Model is the preferred model for the study and it is hereby adopted.

#### Table 4.4: Panel Regression Result (Random Effect Model)

Dependent Variable: EPS Method: Panel EGLS (Cross-section random effects) Date: 11/04/20 Time: 21:46 Sample: 2008 2019 Periods included: 12 Cross-sections included: 9 Total panel (balanced) observations: 108 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.		
RTE CRR STR C	0.048902 0.002598 0.155194 0.615963	0.017240 0.006300 0.034404 0.289905	2.836555 0.412367 4.510973 2.124704	0.0055 0.6809 0.0000 0.0360		
	Effects Sp	ecification	S.D.	Rho		
Cross-section random Idiosyncratic random			0.729583 1.050082	0.3256 0.6744		
Weighted Statistics						
Root MSE Mean dependent var S.D. dependent var Sum squared resid Durbin-Watson stat	1.025025 0.591376 1.337960 113.4729 1.593313	R-squared Adjusted R-squared S.E. of regression F-statistic Prob(F-statistic)		0.407590 0.390501 1.044551 23.85135 0.000000		
Unweighted Statistics						
R-squared Sum squared resid	0.517436 155.0819	Mean dependent var Durbin-Watson stat		1.541296 1.165822		

Source: Author's EViews 8.0 Output

#### **Discussion of Results:**

From the results of panel regression analysis in table 4, the R-square (R<sup>2)</sup> of 0.407590, shows that 41% of the variation in earnings per share is explained by the independent variables (retained earnings, cash reserve ratio and statutory reserve) while the remaining 59% is caused by error terms and other variables not captured in the model of the study. This also indicates that RTE, CRR and STR affects EPS of the banks, however, they are not the major factors influencing EPS of the listed deposit money banks in Nigeria during the period. The result of Durbin Watson Statistics (DWS) of 1.165822 is closer to 2 than 0. This implies that there is no trace of autocorrelation in the model of the study.

**Discussion of Hypothesis One**: Results from the table also indicate that the regression coefficient of retained earnings is positive at 0.048902 and also significant at 0.05 level of significance (0.05>0.0055). This result is also corroborated by the result of t-statistics. From the t-test, t-calculated of RTE is 2.836555 which is greater than the critical value of t=2. Therefore, the weight of the evidence available suggests that we reject the null hypothesis and accept the alternative that retained earnings significantly affect earnings per share of the banks. Thus, it can be stated that retained earnings positively and significantly affect earnings per share of the listed deposit money banks in Nigeria. This result conforms to a prior expectation that an increase in retained earnings will lead to more investment and more earnings for banks. The finding is also consistent with the findings of Yemi & Serik (2018), Al-Troudi (2013) and Rijanto (2018).

**Discussion of Hypothesis Two**: The regression results also show that the coefficient of cash reserve ratio is 0.002598 which is positive, but not significant at 0.05 level of significance (0.05<0.6809). The result of the t-statistics is in line with this result. From the t-test, t-calculated of CRR is 0.412367which is less than the critical value of t=2. Thus, the weight of available evidence suggests that we accept the null hypothesis and reject the alternative. Therefore, it can be stated that cash reserve ratio positively, but insignificantly affect earnings per share of the listed deposit money banks in Nigeria. This result is not in line with a priori expectation. It was expected that an increase in CRR will reduce the earnings capacity of the banks as the CRR represents liquid funds deposited with CBN which does not generate revenue for the banks. The positive effect of CRR on EPS maybe in connection with the liquidity provided the banks which enabled the banks meet their short-term business obligation. This result is consistent with the findings, Maccarthy (2016), Nhan, Ngoc & Ha (2017), Udeh, (2015), Arif & Anees (2012) and Rao (2006). The result is, however, inconsistent with the finding of, Fatima & Samreen (2015), Bawa, Akinniyi & Njarendy (2018), Atlaw (2017), Punita & Somaiya (2006), Eden (2014), Abid & Lodhi (2015) and Gemechu (2016).

**Discussion of Hypothesis Three:** The regression result equally indicates that the regression coefficient of STR is 0.615963 which is positive, and also significant at 0.05 level of significance (0.05>0. 0.0000). The result is further strengthened by the t-statistics result. From the t-test, t-calculated of STR is 4.510973 which is greater than the critical value of t=2. From all indication, the available evidence suggests that we reject the null hypothesis and accept the alternative. Therefore, it can be said that statutory reserve positively and significantly affect earnings per share of the deposit money banks in Nigeria. The result conforms to the a priori expectation that an increase in statutory reserve will place more funds in the hands of bank managers for investment and generation of more earnings. This finding is also consistent with the finding Rao (2006), but inconsistent with the findings of Punita & Somaiya (2006).

#### Summary of Findings, Conclusion and Recommendations

#### 5.1 Summary of Findings

The two major statistical tools of analysis used in the study are, rank-order correlation analysis and panel data regression analysis. Results from the correlation analysis indicate that the relationship between each of the three-independent variable (retained earnings, cash reserve ratio and statutory reserve) and the dependent variable (earnings per share) is positive and significant.

The pane data regression analysis on the other hand suggests that retained earnings and statutory reserve positively and significantly affect earnings per share of deposit money banks while cash reserve ratio positively, but insignificantly affect earnings per share of the bank during the period.

#### 5.2 Conclusion

The main objective of the study is to evaluate the effect of retained earnings, cash reserve ratio and statutory reserve on earnings of deposit money banks in Nigeria. Nine banks were sampled from the thirteen listed deposit money banks in Nigeria while descriptive statistics, Panel data regression and Spearman rank order correlation analysis were used to analyze the secondary data obtained from the banks. Results from the analysis suggest that retained earnings and statutory reserve positively and significantly affect earnings per share of the bank. Result further indicates that cash reserve ratio also positively, but none significantly affects earnings per share of the banks during the period. The implication of these findings is that as retained earnings and statutory reserve increase, earnings per share of the banks also increases significantly. The earnings per share will also increase insignificantly as cash reserve ratio increases.

#### 5.3 Recommendations

In view of the findings of the study, the study recommends that:

- i. The banks' management should not distribute all their profits as dividend to the shareholder in any year, rather a retention policy should be in place whereby some certain percentages of the profit will be retained in the bank. The earnings so retained will be ploughed back into the bank to earn more profit and to increase firm value of the banks.
- ii. The banks' management should comply with the cash reserve requirement policy of the Central Bank of Nigeria. Firstly, it will absolve the banks from penalty for non-compliance and secondly, it will provide liquidity to enable the bank meets its short-term obligations to their customers.
- iii. The banks' management should properly invest their banks 'statutory reserve. Proper investment of statutory reserve will enable the banks earn more income and maximize value for shareholder.

#### REFERENCES

- Abid, S. F and Lodhi, S (2015). Impact of Changes in Reserve Requirement on Banks' Profitability: A Case of Commercial Banks in Pakistan. *European Journal of Business and Management*, 7(31), 1-6.
- Abuzarqa, R (2019). Evaluating banks financial performance using financial ratios: A case study of Kuwait Local Commercial Banks. *Oradea Journal of Business and Economics*, 4(2), 45-52.
- Adebayo, M., Adeyanju, D., and Olabode, S. (2011). Liquidity management and Commercial Banks' Profitability in Nigeria. Research Journal of Finance and Accounting, 2(7/8), 25-37.
- Akinkoye, E. Y and Akinadewo, I. S (2018). Retained Earnings and Firms' Market Value: Nigeria Experience. *The Business and Management Review*, 9(3), 482-496.
- Al Troudi, W. (2013). Cash dividends, retained earnings and stock prices: Evidence from Jordan. *Interdisciplinary Journal of Contemporary Research in Business*, 4(12), 585.
- Al-Tamimi (2020). Factors Influencing Performance of the UAE Islamic and Conventional National Banks. *Global Journal of Business Research*, 4(2), 1-15.
- Amadeo, K (2020). Reserve Requirement and How It Affects Interest Rates. <u>https://www.thebalance.com/reserve-requirement-3305883</u>.
- Athanasoglou (2006). Determinants of Bank Profitability in the South Eastern European Region. *International Journal of Central Banking*, 8 (1), 27-37.
- Atlaw, T (2017). The effect of reserve requirement on Ethiopian commercial banks' performance: profitability and lending capacity. A thesis submitted to the school of graduate studies of St. Mary University in partial fulfillments for the Degree of Masters in Development Economics.
- Banks and Other Financial Institutions Act (BOFIA) 1991.
- Bawa, A. B, 1, Akinniyi, K.O and Njarendy P. I. (2018). Cash reserve ratio, money supply and the profitability of deposit money banks in Nigeria. *International Journal of Financial Management*, 7(4), 9-18.
- Bharda, V (2018). Effect of statutory reserve on commercial banks performance in India. *Journal of Banking and Finance*, 8(4), 118-126.
- Chasan, E. (2012). Mid-Size Firms Tap Retained Earnings to Fund Growth. The Wall Street Journal.
- Coleman B. (2017). The importance of Earnings Per Share (EPS) to investors). *Journal of Applied Finance, 7(15),30-33.*
- Eden, K (2014). The impact of national bank regulation on banks performance: evidence from the private banks of Ethiopia. *International Journal on Banking and Finance*, 5(1), 126-132.
- Elliott, D. J. (2014). Bank liquidity requirements: An introduction and overview. *Journal of Banking and Financial*, 55(4), 246-251.
- Emmanuel, A. A and Olutoye, E. A. (2015) cash reserve requirement and lending behavior of banks to small and medium scale enterprises in Nigeria. *International Journal of Economics, Commerce and Management*, 5(2), 75-88.
- ACADEMIC INK REVIEW | ODINAKA, 2020

- Fatima, A. S. and Samreen, L., (2015). The impact of changes in reserve requirement on banks' profitability, a case study of banks in Pakistan. *European Journal of Business Management*, 17(31), 25-31.
- Gemechu, A (2016). Determinants of banks 'profitability: Evidence from banking industry in Ethiopia. *International Journal of Economics, Commerce and amanagement*,4(2), 442-463.
- Gray, S. (2011). Central banks' balances and reserves requirements (IMF Working Paper/11/36). Washington, DC: International Monetary Fund.
- Jacobson T, Linde J, and Roszbach K. (2002). The IRB Approach in the Basel Committee's Proposal for new Capital Adequacy Rules: Some Simulation-based illustrations. *Economics Review*, 4(1), 35-72.
- Jatoi, M. Z., Shabir G., Hamad, N. Iqbal, N. and Muhammad, K. (2014). A regression impact of earning per share on market value of share: A case study of Cement Industry of Pakistan. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 4(4), 221–227.*
- Jembere, H. (2014), determinants of deposit mobilization in private commercial banks of Ethiopia. *International Research Journal of Finance and Economics*, 3(86), 10-22.
- Kumari, L and Kumar. N. J (2019). The Effect of Cash Reserve Ratio and Reverse Repo Rate on Stock Market Performance -Empirical Evidence from India. *IOSR Journal of Economics and Finance (IOSR)*, 10(1), 47-51.
- Maccarthy, J (2016). The effect of Cash Reserve Ratio (CRR) on the Financial Performance of Commercial Bank and their Engagement in CRS in Ghana. *International Journal of Central Banking*, 8 (1), 27-37.
- Murray, J. (2018). Earnings of a business and how earnings are calculated. https://www.thebalancesmb.com/earnings-of-a-business-and-how-earnings-are-calculated-398240.
- Myers, S. C. and Majluf, N. S. (1984). Corporate financing and investment decision, when firms have information that investors do not have. *Journal of Financial Economics*, *13*, *34-39*.
- Nicholas, S. (2003). What is bank capital and what are the levels or tiers of capital? Publication of the Federal Reserve Bank of San Francisco. <u>https://www</u>. frbsf.org/ education/publications/ doctor-econ/2001/September/bank-capital/
- Nhan, N. T, Ngoc, H. V and Ha, T. L (2017). Impacts of monetary policy on commercial banks' profits: The case of Vietnam. *Journal of Asian Social Science* 13(8), 32-40.
- Oganda, J. (2018). Effect of cash reserves on performance of commercial banks in Kenya: A Comparative Study between National Bank and Equity Bank Kenya Limited. *International Journal of Central Banking*, 8 (1), 65-76.
- Oganda, A. J., Mogwambo, V. A. and Otieno, S. (2018). Effect of cash reserves on performance of Commercial Banks in Kenya: A comparative study between National Bank and Equity Bank Kenya Ltd. *International Journal of Academic Research in Business and Social Sciences*, 8(9), 685-704.
- Punita, R. and Somaiyi, K. J. (2006). Monetary Policy; Its impact on profitability of banks in India. *Intermediate* Business and Economics Research Journal, 5(3), 15-19.
- Rijanto, A. (2018). Innovation Driven Enterprise, Sustainable Business and Firm Financial Performance. *The Asian Journal of Technology Management*, 11(1), 10-25.

- Rao, P. (2006). Monetary Policy: Its impact on the profitability of Banks in India. *International Business and Economics Research Journal*, 5(3), 15-22.
- Sanjeet S. (2011) Does earnings per share determines market value of firms? *International Refereed Research Journal, 4(2), 51-60.*
- Sumangala P. B. (2012). Impact of Earnings per share on Market Value of an equity share: An Empirical study in Indian Capital Market. *Journal of Finance, Accounting and Management,* 3(2), 1-14.
- Syükse, S., Mukhtarov, S. M., Mammadov, E. and Özsarı, M. (2018). Determinants of Profitability in the Banking Sector: An Analysis of Post-Soviet Countries. *International Journal of Accounting and Financial Reporting*, 5(2),173-87.
- Tulsian, M. (2014). Profitability Analysis: A comparative Study of SAIL and TATA Steel Firms. *IOSR Journal of Economics and Finance*, 3(2), 19-22.
- Udeh, S. N (2015). Impact of Monetary Policy Instruments on Profitability of Commercial Banks in Nigeria: Zenith Bank Experience. *Research Journal of Finance and Accounting*, 6(10), 190-206.
- Ugoani, J. N. N. (2016). Earnings and Bank Profitability in Nigeria. *Independent Journal of Management and Production*, 7(4), 1240-1255.
- Umobong, A. A. (2015). Assessing the Impact of Liquidity and Profitability Ratios on Growth of Profits in Pharmaceutical Firms in Nigeria. *European Journal of Accounting, Auditing and Finance Research, 3 (10),* 97-114.
- Yemi, A. E. and Seriki, A. I. (2018). Retained Earnings and Firms' Market Value: Nigeria Experience. *The Business and Management Review*, 9(3), 482-496.
- Younus, H. and Akhta P. (2009), Reserve Requirement as a Monetary Policy Instrument in Bangladesh. *Journal of Business and Technology*

**Copyrights**: The copyright for the published article is reserved by the author(s), with initial publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution License.