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## RESEARCH ARTICLE

### CORPORATE SOCIAL RESPONSIBILITY AND FINANCIAL PERFORMANCE OF QUOTED DEPOSIT MONEY BANKS IN NIGERIA

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#### ABSTRACT

This study aims at ascertaining how corporate social responsibility (CSR) relates with financial performance of quoted deposit money banks in Nigeria from 2010-2016. Specifically, this study aims to ascertain the extent of relationship that exists between donation and return on assets; determine the extent of relationship that exists between donation and return on equity and to evaluate the extent of relationship between donations and market-to-book value of quoted deposit money banks in Nigeria. This study employed ex-post fact research design. The sample size of this study consists of the fifteen quoted deposit money banks in Nigeria. Pearson Coefficient Correlation, Panel Least Square (PLS) regression analysis and Granger Causality test were employed via E-View 9.0. The study found a significant positive relationship between return on asset, return on equity, market-to-book value and donations at 5% level of significance. The implication of the findings is that CSR implementation maximizes future returns for deposit money banks in Nigeria. It was recommended among others that since CSR has a positive and significant relationship with financial position, deposit money banks should engage in CSR practices as this will guarantee a safer environment for smooth operations and maximisation of shareholders wealth.

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#### INTRODUCTION

Corporate Social Responsibility (CSR) is an issue that dominates the existing literature. Many authors made an attempt to approach this term with many views. Davis (1973) defined CSR as the firm's considerations of, and response to, issues beyond the narrow economic, technical, and legal requirements of the firm to accomplish social benefits along with the traditional economic gains which the firm seeks. The World Business Council for Sustainable Development (1999) suggests that CSR is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large". There is also a disagreement on the definition of CSR among those that face CSR as an ethical attitude and those who argue that it is a firm's strategy (Wan-Jan, 2006). Stainer (2006) states that CSR concept is to show that ethical principles, from wherever derived, can improve. Corporate Social Responsibility (CSR) concept is deepening among Organisations and Societies in Nigeria. It is regarded as the Organisation's activity to make sustainable impact in Society, and which in turn has the potential to create positive effect on the business organizations that engage in it.

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Business organizations incur huge expenditures on social responsibility because they regard Corporate Social Responsibility (CSR) as a public relations stunt used by large corporations to look good in front of customers and other stakeholders. Challenges facing businesses in Nigeria within today's complex and competitive environment are products of economic and non-economic related forces. Thus, in order to survive and prosper within the business environment, businesses must plan their activities in such a way that they can strike a balance between the legal, economic, philanthropic and social aspects to their operations. The banking sector of the Nigerian economy is not an exception as it equally needs to reconcile the conflicting interests of its various stakeholders such as shareholders, government, creditors, and the host Community (Amahalu, Egolum, Obi and Iliemena, 2016). The deposit money banks are the intermediaries that facilitate the actual movement of funds between the surplus and deficit sectors of the Nigerian economy culminating in its growth. These banks in the course of their operations provide some form of corporate social responsibility to their operating environments (Ezechukwu and Amahalu, 2017). In the recent past, financial institutions in Nigeria witnessed untold financial distress in which banks that were considered healthy by investors happened to be the most distressed.

The banking sector crisis remained a subject of concern because of its role in facilitating and stimulating economic development. This however made the apex bank (CBN) to take a bold step in revitalizing the banking sector through the stipulation of N25 billion naira capital bases for all banks in Nigeria. This led to the emergence of 25 Commercial banks in Nigeria as 31st December, 2005. Deposit Money Banks in Nigeria should discourage having higher percentages of institutional shareholding and managerial shareholdings by the banks as it was clearly observed from the findings of the study that increasing one of them reduces performance the listed Deposit Money Banks in Nigeria (Amahalu, Agbionu, , and Obi, (2017). However, in the contemporary business environment, investors have to hire managers as their agents to play essential roles on their behalf. But sometimes managers work for their interest rather than maximizing wealth for shareholders. This will bring about agency conflict. Thus, firms tend to have poor performance when they have greater agency problems and these allow managers to generate personal benefits that serve their own interest instead of those of the stockholders.

### Objectives of the Study

The main objective of this study is to ascertain the relationship between corporate social responsibility and financial performance.

### The specific objectives are

- To ascertain the extent of relationship that exists between donations and return on assets (ROA) of quoted deposit money banks in Nigeria.
- To determine the degree of relationship between donations and return on equity (ROE) of quoted deposit money banks in Nigeria.
- To verify how donations relate with market to book value (MBV) of quoted deposit money banks in Nigeria.

### Hypotheses of the Study

#### The following alternative hypotheses guided this study:

**H<sub>1</sub>:** There is significant relationship between donation and return on assets of quoted deposit money banks in Nigeria.

**H<sub>2</sub>:** There is significant relationship between donations and return on equity of quoted deposit money banks in Nigeria.

**H<sub>3</sub>:** There is significant relationship between donation and market to book value of quoted deposit money banks in Nigeria.

### Conceptual Review

#### Corporate Social Responsibility

Corporate Social Responsibility (CSR) is described as an instrument, a concept or even a business model that requires companies to apply a radical change in attitude (Lentner, Szegedi and Tatay 2015).

Corporate Social Responsibility (CSR) has to do with an organization going out of his way to initiate actions that will impact positively on its host community, its environment and the people generally (Adeyanju 2012). According to Jibril et al (2016), in recent times, the European Commission has simplified the CSR definition as the responsibility of enterprises for their impacts on Society. Roberts (1992) defined CSR as reporting a strategic plan in order that a firm manages stakeholder relationships. In other words, we could say that a firm uses CSR reporting to communicate with its stakeholders. Disclosure on CSR activities is necessary due to the fact that a firm owes a duty to the society or has a social contract. Concerning the need of communication and verification of social and environmental issues, different guidelines came out (Reynolds and Yuthas, 2008). Corporate disclosures provide a firm the opportunity to spread value information mainly to financial stakeholders as stock analysts, capital markets and institutional investors and there as get evaluated on its financial measures. Despite the necessity for disclosures on social and environmental issues, there has been a variety of factors, which may affect either positively or negatively firms to provide these reports. Firm's size and the characteristics of industry seem to play the most important role in the disclosure of environmental issues, according to many studies (Da Silva Monteiro and Aibar-Guzmán, 2009; Brammer and Pavelin, 2008; Magness, 2006).

#### Bank Donation

Makins, Adams, Knight, Scott and Collette (1997) define bank as an Institution offering services such as the safe-keeping and lending of money, any supply, store or reserve. Also donation implies giving something especially in charity. According to Bekkers and Wiepking (2002) define charitable giving as the donation of money to an organization which benefits others beyond one's own family. Daily News Egypt (2017) stated that banks take the impact of their operational activities on society into consideration. Consequently it requires a built-in, self-regulating mechanism whereby banks would monitor and ensure their adherence to law, ethical standards, and international norms to produce an overall positive impact on society. Corporate social responsibility (CSR) is a fundamental value, and the development of bank activities and that of the communities go hand in hand. Banks not only need to watch the direct environmental impacts of their own operations, but also the impacts of their lending activities (Thompson and Cowton, 2004).

#### Financial Performance

Financial Performance (FP) measures are objective in nature whereas Non-financial Performance measures are subjective in nature that includes managers' perception of firm performance on market share, employee health and safety, investment in research and development, to mention a few. According to Jibril et al (2015) financial performance is an indicator of the firm's attainment of economic or financial objectives. The long term survival and value of a firm is dependent on its ability to maintain desirable profit levels through its operating activities. Information regarding a firm's financial performance is obtained from the financial statements on which stakeholders base their decisions in terms of either investment or sustenance of contractual business relationships with the entity.

### Return on Assets (ROA)

Return on Assets (ROA): is an indicator of how profitable a company is in relation to its total assets. It gives an idea as to how efficient the management uses assets to generate earnings. In the works of Karagiorgos (2010) and Ogbodo, Amahalu and Abiahu (2017) it was stated that ROA represents the profitability of the firm with respect to the total set of resources, or assets, under its control. Profitability shows the degree to which a firm's revenues exceed its cost. The ROA measures not only profit aspect but also that related to assets employed to generate the profit. (ROA is calculated by= Net profit /Total Assets.

### Return on Equity (ROE)

ROE represents return on equity which is defined as earnings before tax divided by total number of common shares outstanding. EPS represents earnings per share; which is defined as net profit to number of shares outstanding (Kaleem, 2012). According to ward and price (2006), Return on equity reveals how much profit a company earned in comparison to the total amount of shareholder equity found in the statement of financial position.

$$\text{ROE is} = \frac{\text{Net income (Excluding Doantions)}}{\text{Average Equity}}$$

### Market to Book Value (MBV)

Market to book value (MBV) is the ratio that shows the relationship between the market value per share and book value per share for each bank. While the market values per share will be sourced from the Nigeria Stock Exchange reports, the book values per share will be calculated from the balance sheet figures for each bank for the period covered in this study.

(MBV is calculated by =market value/book value)

### Corporate Social Responsibility and Financial Performance

The use of the measure for financial performance is based on the thought that the measure can indicate an entity's performance that is not affected by the difference of company size. The return on assets (ROA) measures not only profit aspect but also that related to assets employed to generate the profit. If the ROA is broken down, there will be important two measures: profitability ratio (profit margin) and asset turnover ratio. For return on equity (ROE), there will be one more measure of financial leverage in addition to having the two measures. Also, market to book value can be used as a proxy to financial performance. The World Business Council for Sustainable Development (WBCSD) (2003) stressed how the views across the world on the understanding of CSR differ considerably; the crucial point is that the context in which you are operating influences the interpretation of CSR that you have. Around different countries there obviously are different cultures, different ways of perceiving things, different external pressures (example the legal and political ones).

### Corporate Social Responsibility and Return on Assets

ROA shows how efficient the management is as regards the usage of its assets in order to generate earnings. Hill (2006)

defined CSR as a set of practices that outline good management or business practices, transparency and company's disclosure. Different authors consider CSR a concept that encourages companies to engage in positive activities or social responsibilities on a voluntary basis. Even though social activities are not directly related with the company business, they have an indirect positive impact on the businesses which consider undertaking them (Hopkins, 2003).

### Corporate Social Responsibility and Return on Equity

ROE underlines the firm's efficiency as regards the usage of shareholders' funds to generate profits. Simionescu and GherGhina (2014) conducted a study on CSR and corporate performance with anempirical evidence from a panel of the Bucharest stock exchange listed Companies stated that based on previous studies, most of the studies on CSR are made in developing countries and the variables used in many studies do not reflect both accounting and market measure. They used both accounting based performance measures are (ROA, ROE, and ROS) where ROS is return on sales, as well as market based firm performance measures are (PER, EPS, and PBV) where PER is price per earnings ratio, EPS is earning per shares and PBV is price per book value which is calculated by market value divided by book value in order to determine the relation between CSR and FP. In this present study, the accounting measures used are ROA and ROE then the marketing measure used is MBV.

### Corporate Social Responsibility and Market to Book Value

According to (McGuire et al. 1988 as cited in Simionescu et al 2014), market ratios have several advantages relative to accounting based measures: are less susceptible to differential accounting procedures and managerial manipulation and represent investors' evaluations of a firm's ability to generate future economic earnings rather than past performance. Orlitzky et al. (2003) found that CSR appeared to be more highly correlated with accounting based measures of firm performance than with market based ratios. However, Venanzi (2012) stated that market value based measures of performance can be affected by the following limitations: they reflect factors beyond managers' control; they tend to aggregate relevant information in an inefficient manner for compensation purposes; they cannot be disaggregated beyond the firm level; they can be influenced by investors' expectations which can be inconsistent with managers' rationale, because of the asymmetric information between investors and managers; they can increase the risk exposure of managers, distorting their risk perception when compared to the owners' risk perception.

### Theoretical Review

#### Legitimacy theory

Deegan and Unergan (2006) stated that legitimacy theory encompasses those companies continually managing their operations and activities within the bounds and the norms of the society. These organizations show their activities in such a way that external parties believed it all are legitimate. Additionally, the earlier mentioned bounds and norms are not static, but change over time and the company must respond quickly to adapt these changes (Deegan and Unerman 2006). (Suchman 1995 as cited in Moenna 2014) gives also an explanation about legitimacy and this is when an organization operates in line with the norms and bounds of the society.

The Legitimacy theory discusses a social contract among the company and the Community (Dai, 2010). In case in which the company fails to accomplish their social contract it will damage its own legitimacy. The result of this failure could be sanctions from the society (Deegan et al, 2008). To prevent these, companies will provide voluntary CSR disclosures.

### Stakeholder theory

Legitimacy theory discusses expectations of society in general. Stakeholder theory concentrates and focused on particular stakeholders groups. It explains how an organization interacts with these particular groups. Stakeholders are defined by Freeman as an individual or group that can affect the achievements of the organization's objectives or is or are affected by these objectives (Freeman, 1984 as cited in Moenna 2014). (Thompson et al, 1995 as cited in Moenna 2014) explained that stakeholders are groups in relationship with an organization. According to (Clarkson 1995 as cited in Moenna 2014) stakeholders are persons or groups that have, or claim ownership, rights, or interest in a company and its activities. Stakeholder groups are: employees, local community, suppliers, customers, society, finance providers, governments, and NGO's.

### Empirical Review

Jibril et al (2016) in their work on CSR and Financial Performance of quoted deposit money banks in Nigeria stated that the study adopts multiple regression technique in analyzing the data with the aid of SPSS techniques. The findings reveal that corporate social responsibility has a positive and significant impact on return on equity and return on assets as financial performance proxies of listed deposit money banks in Nigeria. It is recommended that Nigerian deposit money banks should keep on providing corporate social responsibility services to their host Community.

Abdulazeez and Monsuru (2014) carried out study and examined the effects of corporate social responsibility activity (CSR) disclosure on bank profitability in Nigeria. Data were sourced from annual report and accounts of twelve sampled commercial banks in Nigeria for the year 2012 only. Variables such as CSR disclosure scores, banks' size and owners' equity serve as independent variables and banks' profitability proxy by returns on equity (ROE) as dependent variable were incorporated into the model. The data were analyzed using multiple regression analysis of Ordinary Least Square (OLS). The results showed that banks' size and CSR disclosure score have a positive relationship with bank profitability while owners' equity has negative association with bank profitability. It was therefore concluded that banks should increase their level of CSR disclosure as it exhibits greater concern to improve on good corporate image and as a way of showing a greater commitment to impact and improve people's lives which in return capable of improving banks' patronage and profitability. Adeneye (2015) examined the impact of corporate social responsibility on company performance. A descriptive research design was adopted. Corporate social responsibility was measured using CSR index. Company performance was measured using market to book value (MBV), company size (Size), and return on capital employed (ROCE). Descriptive statistics, regression and correlation analysis were carried out. Descriptive statistics

were done to describe the data set of 500UK firms, regression statistics and correlation analyses were done. Findings showed significant positive relationship between corporate social responsibility, market to book value and return on capital employed. The study however found no significant relationship between CSR and size. The study found theoretical implication for stakeholder theory of corporate social responsibility as shareholders wealth is maximized. The study recommended that for an increased financial performance, UK firms after an industry examination should intensify more efforts in carrying out their corporate social responsibilities which can serve as a source of competitive advantage.

## METHODOLOGY

### Research Design

The research design that was employed in this study is the ex-post facto research design.

### Population of the Study

The population of the study was centered on the performance indices of the fifteen (15) DMBs listed on the floor of the Nigerian Stock Exchange from 2010 to 31<sup>st</sup> December 2016 (See Appendix 1).

### Sample Size and Sampling Method

The fifteen (15) deposit money banks represent the sample size for this study. Data were gathered from the published financial statements of the fifteen (15) quoted banks for seven (7) years period spanning from 2010-2016, using purposive sampling method.

### Source of Data

This study essentially made use of secondary data. The data were sourced from publications of the Nigerian stock exchange (NSE), fact books and the annual report and accounts of the quoted companies.

### Research Variables

#### Independent Variables

The independent variable in this study is corporate social responsibility which was proxied by donations made by the banks to the host community (as disclosed in the annual reports)

#### Dependent Variables

The drivers for the independent variable (financial performance) are:

**Return on Asset (ROA):** It is an indicator of how profitable a company is in relation to its total assets.

$$ROA = \text{Net income} / \text{Total Assets}$$

**Return on Equity (ROE):**

ROE is expressed as a percentage and calculated as:

**Table 1. Correlation Matrix of variables in Banking Industry**

|     | ROA     | ROE     | MBV     | DON     | LEV     | BSZ     |
|-----|---------|---------|---------|---------|---------|---------|
| ROA | 1.0000  | 0.0129  | -0.4603 | 0.4687  | -0.5284 | -0.0891 |
| ROE | 0.0129  | 1.0000  | 0.5753  | -0.0179 | 0.8287  | -0.1557 |
| MBV | -0.4603 | 0.5753  | 1.0000  | -0.0777 | 0.7554  | -0.0841 |
| DON | 0.4687  | -0.0179 | -0.0777 | 1.0000  | -0.1609 | 0.7521  |
| LEV | -0.5284 | 0.8287  | 0.7554  | -0.1609 | 1.0000  | 0.0316  |
| BSZ | -0.0891 | -0.1557 | -0.0841 | 0.7521  | 0.0316  | 1.0000  |

Researcher's computation using E-View 9.0, 2017

**Table 2. PLS Regression Analysis showing the relationship between DON, LEV, BSZ and ROA**

| Dependent Variable: ROA                  |             |                       |             |        |  |
|--|-------------|-----------------------|-------------|--------|--|
| Method: Panel Least Squares              |             |                       |             |        |  |
| Date: 08/05/17 Time: 21:40               |             |                       |             |        |  |
| Sample: 2010 2016                        |             |                       |             |        |  |
| Periods included: 7                      |             |                       |             |        |  |
| Cross-sections included: 15              |             |                       |             |        |  |
| Total panel (balanced) observations: 105 |             |                       |             |        |  |
| Variable                                 | Coefficient | Std. Error            | t-Statistic | Prob.  |  |
| C  | -0.036075   | 0.168353              | -0.214281   | 0.8308 |  |
| DON                                      | 0.002611    | 0.002908              | 3.897840    | 0.0014 |  |
| LEV                                      | -0.000617   | 0.001682              | -0.366534   | 0.7147 |  |
| BSZ                                      | 0.170742    | 0.164052              | 2.040783    | 0.0305 |  |
| R-squared                                | 0.721769    | Mean dependent var    | 0.128092    |        |  |
| Adjusted R-squared                       | 0.707287    | S.D. dependent var    | 0.083404    |        |  |
| S.E. of regression                       | 0.083708    | Akaike info criterion | -2.085618   |        |  |
| Sum squared resid                        | 0.707707    | Schwarz criterion     | -1.984515   |        |  |
| Log likelihood                           | 113.4950    | Hannan-Quinn criter.  | -2.044649   |        |  |
| F-statistic                              | 0.749215    | Durbin-Watson stat    | 1.461038    |        |  |
| Prob(F-statistic)                        | 0.025294    |                       |             |        |  |

Researcher's computation using E-View 9.0, 2017

**Table 3. Granger Causality Test showing the Causation between DON and ROA**

| Pairwise Granger Causality Tests |     |             |        |  |
|----------------------------------|-----|-------------|--------|--|
| Date: 08/05/17 Time: 21:42       |     |             |        |  |
| Sample: 2010 2016                |     |             |        |  |
| Lags: 2                          |     |             |        |  |
| Null Hypothesis:                 |     |             |        |  |
| DON does not Granger Cause ROA   | Obs | F-Statistic | Prob.  |  |
| ROA does not Granger Cause DON   | 75  | 5.67806     | 0.0042 |  |
|                                  |     | 0.59960     | 0.5518 |  |

Researcher's computation using E-View 9.0, 2017

**Table 4. PLS Regression Analysis showing the relationship between DON, LEV, BSZ and ROE**

| Dependent Variable: ROE                  |             |                       |             |        |  |
|--|-------------|-----------------------|-------------|--------|--|
| Method: Panel Least Squares              |             |                       |             |        |  |
| Date: 08/05/17 Time: 21:45               |             |                       |             |        |  |
| Sample: 2010 2016                        |             |                       |             |        |  |
| Periods included: 7                      |             |                       |             |        |  |
| Cross-sections included: 15              |             |                       |             |        |  |
| Total panel (balanced) observations: 105 |             |                       |             |        |  |
| Variable                                 | Coefficient | Std. Error            | t-Statistic | Prob.  |  |
| C  | 7.318480    | 173.2342              | 3.042246    | 0.0064 |  |
| DON                                      | 3.588863    | 2.992816              | 2.199159    | 0.0333 |  |
| LEV                                      | -0.465578   | 1.731195              | -0.268935   | 0.7885 |  |
| BSZ                                      | -1.713256   | 168.8080              | -0.010149   | 0.9919 |  |
| R-squared                                | 0.714946    | Mean dependent var    | 9.232584    |        |  |
| Adjusted R-squared                       | 0.614313    | S.D. dependent var    | 85.52481    |        |  |
| S.E. of regression                       | 86.13468    | Akaike info criterion | 11.78705    |        |  |
| Sum squared resid                        | 749337.5    | Schwarz criterion     | 11.88816    |        |  |
| Log likelihood                           | -614.8202   | Hannan-Quinn criter.  | 11.82802    |        |  |
| F-statistic                              | 17.10823    | Durbin-Watson stat    | 1.168740    |        |  |
| Prob(F-statistic)                        | 0.005720    |                       |             |        |  |

Researcher's computation using E-View 9.0, 2017

**Return on Equity** = Net Income/Shareholder's Equity

**Market-to-Book Value (MBV):** Market-to-book value is a financial ratio used to compare a company's current market price to its book value.

$$MBV = \frac{\text{Market Value of the firm}}{\text{Book value of the firm}}$$

### Control Variables

In order to boost the robustness of the result, the following control variables were employed in this study:

$$\text{Leverage (LEV)} = \frac{\text{Total liabilities}}{\text{Total Asset}}$$

Bank Size (BSZ): Natural logarithm of total assets

### Model Specification

The model of this study is hinged on the model of Gauss-Markov theorem, which enables the examination of the relationship between corporate social responsibility and financial performance. The model is designed below:

$$Y_i = \beta_1 + \beta_2 X_i + \mu_i$$

Where, Y = regressand, X = regressor,  $\mu$  = stochastic term,  $\beta_1$  = intercept, and  $\beta_2$  = slope coefficients. To conduct the investigation that determines the relationship between corporate social responsibility and financial performance the linear regression model for this study will take the following form:

$$Y = \beta_0 + \beta X_1 + \mu$$

Where:

|           |   |   |
|-----------|---|---|
| Y         | = | financial performance (Dependent Variable)                            |
| X         | = | corporate social responsibility<br>(Explanatory/Independent Variable) |
| $\beta_0$ | = | Constant term (Intercept)   |
| $\beta$   | = | Coefficient of corporate social responsibility                        |
| $\mu$     | = | Error term (Stochastic Term)  |

### Explicitly, the equation can be defined as:

Financial performance = f (corporate social responsibility) +  $\mu$   
Representing the equations with the variables of the construct, hence the following equations below was formulated:

$$ROA = \beta_0 + \beta_1 DON + \beta_2 LEV + \beta_3 BSZ + \mu - H_{01}$$

$$ROE = \beta_0 + \beta_1 DON + \beta_2 LEV + \beta_3 BSZ + \mu - H_{02}$$

$$MBV = \beta_0 + \beta_1 DON + \beta_2 LEV + \beta_3 BSZ + \mu - H_{03}$$

### Decision Rule

Accept the alternative hypothesis, if the P-value of the test is less than 0.05. Otherwise reject.

### A Priori Expectation

<0 or>0, <0, <0 or>0, and <0 or>0

The restrictions in the parameters and their expected signs (coefficients to be estimated) can be tested in the analysis, it implies that a unit increase in the independent variable will

lead to a unit decrease (<0) or increase (>0) in the dependent variable.

### Data Presentation and Analysis

#### Interpretation of Correlation Matrix Result

Table 1 reveals that there is a positive relationship between ROA and DON at 0.4687, while ROE and MBV associate negatively with DON at -0.0179 and -0.0777 respectively. LEV relates negatively with ROA but positively with ROE and MBV, while BSZ negatively relates with ROA, ROE and MBV.

#### Test of Hypotheses

##### Test of Hypothesis 1

**H<sub>01</sub>:** There is no significant relationship between donation and return on assets of quoted deposit money banks in Nigeria.

**H<sub>1</sub>:** There is significant relationship between donation and return on assets of quoted deposit money banks in Nigeria.

#### Interpretation of Regression Coefficient Result

The result in table 2 above shows that DON ( $\beta_1=0.002611$ ) and BSZ ( $\beta_3=0.170742$ ) positively relate with ROA and statistically significant at 5% significant level as depicted by the probability values of the slope coefficient;  $P(x_1=0.0014<0.05; x_3=0.0305<0.05)$ . While LEV has a negative and non-significant relationship with ROA. The coefficient of determination (adjusted R-squared) is 0.71 which means that 71% of variations in ROA are explained by the independent variables, and the Durbin Watson Statistic is 1.461038 suggesting no presence of Auto correlation.

The overall significance value of the regression model; Prob(F-statistic)=0.025294 is less than the critical value of 0.05 inferring that the regression model is significant in predicting the relationship between the independent variable (DON) and the dependent variable (ROA). Invariably, donation has a positive and statistically significant relationship with ROA of deposit money banks listed on NSE at 5% significant level.

#### Interpretation of Diagnostic Result

The result of the Granger causality test in table 3 above indicates a uni-directional relationship between DON and ROA at 5%. It implies that DON granger causes ROA at 5%; the causation runs from DON to ROA at 5% level of significance and does not run in the reverse sense. The Granger Causality test result reveals evidence of casual relationship between corporate social responsibility indicator (donation) and financial performance measurement (ROA), thereby confirming the hypothesis that causality exists between donation and return on assets of deposit money banks in Nigeria.

#### Test of Hypothesis II

**H<sub>02</sub>:** There is no significant relationship between donation and return on equity of quoted deposit money banks in Nigeria.

**Table 5. Granger Causality Test showing the Causation between DON and ROE**

| Pairwise Granger Causality Tests |     |             |        |
|----------------------------------|-----|-------------|--------|
| Date: 08/05/17 Time: 21:46       |     |             |        |
| Sample: 2010 2016                |     |             |        |
| Lags: 2                          |     |             |        |
| Null Hypothesis:                 | Obs | F-Statistic | Prob.  |
| DON does not Granger Cause ROE   | 75  | 9.50914     | 0.0002 |
| ROE does not Granger Cause DON   |     | 0.71211     | 0.4941 |

Researcher's computation using E-View 9.0, 2017

**Table 6. PLS Regression Analysis showing the relationship between DON, LEV, BSZ and MBV**

| Dependent Variable: MBV                  |             |                       |             |        |  |
|--|-------------|-----------------------|-------------|--------|--|
| Method: Panel Least Squares              |             |                       |             |        |  |
| Date: 08/05/17 Time: 21:47               |             |                       |             |        |  |
| Sample: 2010 2016                        |             |                       |             |        |  |
| Periods included: 7                      |             |                       |             |        |  |
| Cross-sections included: 15              |             |                       |             |        |  |
| Total panel (balanced) observations: 105 |             |                       |             |        |  |
| Variable                                 | Coefficient | Std. Error            | t-Statistic | Prob.  |  |
| C  | 1.835687    | 3.808585              | 2.481987    | 0.0119 |  |
| DON                                      | 0.014771    | 0.065798              | 3.224486    | 0.0028 |  |
| LEV                                      | 0.098537    | 0.038061              | 2.588957    | 0.0101 |  |
| BSZ                                      | -0.276620   | 3.711275              | -0.074535   | 0.9407 |  |
| R-squared                                | 0.671244    | Mean dependent var    | 2.134933    |        |  |
| Adjusted R-squared                       | 0.543657    | S.D. dependent var    | 1.936428    |        |  |
| S.E. of regression                       | 1.893687    | Akaike info criterion | 4.152279    |        |  |
| Sum squared resid                        | 362.1911    | Schwarz criterion     | 4.253382    |        |  |
| Log likelihood                           | -213.9947   | Hannan-Quinn criter.  | 4.193248    |        |  |
| F-statistic                              | 2.582545    | Durbin-Watson stat    | 1.647965    |        |  |
| Prob(F-statistic)                        | 0.047522    |                       |             |        |  |

Researcher's computation using E-View 9.0, 2017

**Table 7. Granger Causality Test showing the Causation between DON and MBV**

| Pairwise Granger Causality Tests |     |             |        |
|----------------------------------|-----|-------------|--------|
| Date: 08/05/17 Time: 21:49       |     |             |        |
| Sample: 2010 2016                |     |             |        |
| Lags: 2                          |     |             |        |
| Null Hypothesis:                 | Obs | F-Statistic | Prob.  |
| DON does not Granger Cause MBV   | 75  | 8.06718     | 0.0005 |
| MBV does not Granger Cause DON   |     | 0.07466     | 0.9281 |

Researcher's computation using E-View 9.0, 2017

**H<sub>2</sub>:** There is significant relationship between donation and return on equity of quoted deposit money banks in Nigeria.

### Interpretation of Regression Coefficient Result

The result in table 4 above shows that DON ( $\beta_1=3.588863$ ) positively relate with ROE and statistically significant at 5% significant level as depicted by the probability values of the slope coefficient;  $P(x_1=0.0333<0.05)$ . While LEV ( $\beta_2=-0.465578$ ) and BSZ ( $\beta_3=-1.713256$ ) has a negative and non-significant relationship with ROE.

The coefficient of determination (adjusted R-squared) is 0.614313 which means that 61% of variations in ROE are explained by the independent variables, and the Durbin Watson Statistic is 1.168740 suggesting no presence of auto correlation. The overall significance value of the regression model;  $\text{Prob}(F\text{-statistic})=0.005720$  is less than the critical value of 0.05 inferring that the regression model is significant in predicting the relationship between the independent variable (DON) and the dependent variable (ROE). Invariably, donation has a positive and statistically significant relationship with ROE of deposit money banks listed on NSE at 5% significant level.

### Interpretation of Diagnostic Result

The result of the Granger causality test in table 5, above indicates a uni-directional relationship between DON and ROE at 5%. It implies that DON granger causes ROE at 5%; the causation runs from DON to ROE at 5% level of significance and does not run in the reverse sense. The Granger Causality test result reveals evidence of casual relationship between corporate social responsibility indicator (donation) and financial performance measurement (ROE), thereby confirming the hypothesis that causality exists between donation and return on equity of deposit money banks in Nigeria.

### Test of Hypothesis III

**H<sub>03</sub>:** There is no significant relationship between donation and market-to-book value of quoted deposit money banks in Nigeria.

**H<sub>3</sub>:** There is significant relationship between donation and market-to-book value of quoted deposit money banks in Nigeria.

### Interpretation of Regression Coefficient Result

The result in table 6 above shows that DON ( $\beta_1=0.014771$ ) and LEV ( $\beta_2= 0.098537$ ) positively relate with MBV and statistically significant at 5% significant level as depicted by the probability values of the slope coefficient;  $P(x_1<0.0028<0.05; x_2<0.0101)$ . While BSZ ( $\beta_3=-0.276620$ ) has a negative and non-significant relationship with MBV. The coefficient of determination (adjusted R-squared) is 0.543657 which means that 54% of variations in MBV are explained by the independent variables, and the Durbin Watson Statistic is 1.647965 suggesting no presence of auto correlation. The overall significance value of the regression model;  $\text{Prob}(F\text{-statistic})= 0.047522$  is less than the critical value of 0.05 inferring that the regression model is significant in predicting the relationship between the independent variable (DON) and the dependent variable (MBV). Invariably, donation has a positive and statistically significant relationship with MBV of deposit money banks listed on NSE at 5% significant level.

### Interpretation of Diagnostic Result

The result of the Granger causality test in table 7, above indicates a uni-directional relationship between DON and MBV at 5%. It implies that DON granger causes MBV at 5%; the causation runs from DON to MBV at 5% level of significance and does not run in the reverse sense.

The Granger Causality test result reveals evidence of casual relationship between corporate social responsibility indicator (donation) and financial performance measurement (MBV), thereby confirming the hypothesis that causality exists between donation and market-to-book value ratio of deposit money banks in Nigeria.

### Findings, Conclusion and Recommendation

#### Summary of Findings

**Based on the analysis of data, the following findings were deduced**

- Donation has a positive and statistically significant relationship with ROA on deposit money banks in Nigeria at 5% level of significance. This result supports the findings of Uadiale and Fagbemi (2012); Okwoma (2012), Brezinova and Asatryan (2014).
- Donation has a positive and statistically significant relationship with ROE on deposit money banks in Nigeria at 5% level of significance. This result is in consonance with the works of Abdulazeez and Monsuru (2014), Kumai and Hussaini (2015).
- Donation has a positive and statistically significant relationship with MBV on deposit money banks in Nigeria at 5% level of significance. This result is consistent with the findings of Hirigoyen and Rehm (2015), Ekwe (2014).

#### Conclusion

This study aims at providing logical examination on the link between corporate social responsibility and financial performance and its implications on deposit money banks' performance in Nigeria. Specifically, the study determined (i)

the extent of relationship that exists between donations and return on assets (ROA) of quoted deposit money banks in Nigeria; (ii) the degree of relationship between donations and return on equity (ROE) of quoted deposit money banks in Nigeria (iii) how donations relate with market to book value (MBV) of quoted deposit money banks in Nigeria for a period of seven (7) years ranging from 2010 to 2016. A sample of the fifteen (fifteen) quoted deposit money banks was selected. Data on corporate social responsibility and financial performance measurements were collected from the publications of Nigeria Stock exchange, Fact Books, Annual Report and Accounts of the studied firm for seven years period from 2010-2016 and analyze within the framework of Panel Least Squares (PLS) regression estimate which offers the advantage of combining time series and cross section dimension of the data (Gujurati and Sangeetha, 2007). Granger Causality test was also applied to confirm the hypotheses that corporate social responsibility has a positive and statistically significant effect on financial performance at 5% significant level.

### Recommendation

**In tandem with the findings and conclusion of this study, the following recommendations were made:**

- Since CSR has a positive and significant relationship with ROA, deposit money banks in Nigeria should make more efforts to increase their commitment to social responsibility by contributing higher amounts of their income to social responsibility programs so as to increase its net returns.
- Since CSR has a positive and significant relationship with ROE, deposit money banks should engage in CSR practices as this will guarantee a safer environment for smooth operations and maximisation of shareholders wealth.
- Based on the MBV calculated, deposit money banks are advised to adopt cause-related marketing technique (cause-related marketing technique is when a corporation commits to making a contribution or donation based on a percentage of product sales to a specific cause) in order to regulate social cost and enhance firm value.

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