Corporate Social Responsibility and Financial Performance of Deposit Money Banks in Nigeria

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Abstract: This study examines the effect of CSR on financial performance in the Nigerian banking industry. Thirteen banks were studied. Annual reports and financial statements of the banks for the period of ten years after recapitalisation (2005-2014) were analysed. The banks' financial performance indices—ROA, ROE, ROD—and PAT as well as CSR expenditure were measured and analysed. The data were analysed using regression analyses of STATA version 13. The results of the overall model of the multiple regression, indicating the simultaneous effect of Banks' financial performance on CSR expenditure, the findings indicated that previous financial performance had significant positive effect on current CSR expenditure at p-value=0.0000. However, when the financial performance indices were individually analysed, the results were mixed. For example, previous ROA and ROD reveals negative effect at -4.0535(0.080) -3.655622(0.090) and -2.990002(0.169) and -9.7102(0.000), -7.648551(0.000) and -8.77916(0.001), respectively. However, previous ROE and PAT revealed regression coefficients and p-values of 0.083(0.022), 0.062(0.070) and 0.038(0.281) and 0.258(0.000), 0.213(0.000), and 0.162(0.004) respectively, both indicated significant positive effect on CSR expenditure. In the second model of simple linear regression, the results revealed the existence of strong positive effects between the investigated variables, the p-values were thus, 0.002, 0.000, 0.023 and 0.000 for ROA, ROE, ROD and PAT, respectively, indicating that previous CSR expenditure has a significant positive effect on current financial performance in the Nigerian banking sector. Based on these results, the study, therefore, concluded that there is positive relationship between banks' CSR activities and their financial performance. Thus, banks should be more committed to CSR for better financial performance and for social benefit of the society and; should diversify CSR programs.

Keywords: CSR, Deposit Money Banks, Financial Performance, ROA, ROE, ROD, PAT, Loss

1. Introduction

Advancement in development has led to accumulation and concentration of wealth in one part of the world—advanced economies and of poverty, hunger and diseases in the other—third world and developing economies. This urgently calls for change to spread development in the latter, mainly in Asia, Latin America and Africa (Ghelli 2013). As a result of this, so much pressure is now put on natural resources with debilitating consequences on the environment. This calls for change in behaviour and policy practice. From the perspective of the corporate world (business organisations), the best way it responded to this call for change is being 'socially responsible'—popularly call Corporate Social Responsibility. Thus, in the last few decades, the theme of Corporate Social Responsibility (CSR) has gathered momentum. Firms have been increasingly, called upon to adopt strategies beyond the financial aspects of their operations and consider the social and environmental impact of their business activities. In this context, many companies have modified their policies and activities and had been engaged in CSR. At the firm level, CSR is implemented through various practices, which aim to enhance a company's social and environmental performance (Iatridis, 2011). Thus, many firms started reporting about their ethical, social and environmental conducts under the increasing pressure of shareholders, employees, organizations and all stakeholders in general, who are asking firms to focus on other issues that go beyond the classical companies' duties (Ismail 2011; Ghelli 2013; Iqbal*et al* 2014).

The dilemma facing most businesses today is that despite the strong arguments favoured by the socio-economic view on the benefits of CSR (Bibri 2008; Guadamillas-Gómez, Donate-Manzanares and Škerlavaj, 2010), the economic view of the 1980s voice of *laissez faire* still contends that money spent on CSR by managers is a *theft of*

rightful property of the owner (Baker, 2008). However, CSR in whatever tones and texture being examined does not equate to a *theft*. These mixed views put organizations at crossroads and thus face a conflict of objectives between CSR and profit maximization. This has become the point of tension by business executives. Scholars had empirically and successfully established a link between CSR and financial performance of business organization (Tsoutsoura 2004; Karnani 2010; Vollono 2010; Zaccheaus*et al,* 2012; Iqbal *et al* 2012).The general argument of this study is to examine the Nigerian banks' CSR activities against the backdrop of their financial performance in respect of ROD, ROA, ROE and PAT. In other words, the study is premised on the argument that there is a relationship between banks' financial performance and their corporate social responsibility (in both scope and degree).

The study mainly seeks to answer the question: *what is the effect of CSR expenditure on the financial performance of Nigerian Deposit money banks, (DMBs) and vice versa*. Specially, the study investigate the questions: (i) what is the effect of financial performance in form of Return on Assets (ROA), Return on Equity (ROE), Return on Deposits (ROD), and Profit after tax (PAT) on CSR expenditure of Nigerian Deposit Money Banks? and (ii) what is the effect of CSR expenditure on financial performance of DMBs in Nigeria? The broad aim of this study is *to examine the effects of banks' financial performance on CSR expenditure. The study addressed the question of whether CSR influence financial performance or financial performance has influence on CSR in the Nigerian banking industry.* Specifically, the objectives are to: (i) determine the effects of financial performance measured by ROA, ROE, ROD, and PAT on CSR expenditure of DMBs in Nigeria; and (ii) examine the effects of CSR expenditure on financial performance measured by ROA, ROE, ROD and PAT of DMBs in Nigeria.

In an attempt to provide answers to these research questions, the following hypotheses were formulated: (i) **Ho_1**: There is no significant effect of financial performance on CSR expenditure of Nigerian Deposit Money Banks; and (ii) **Ho_2**. There is no significant effect of CSR expenditure on financial performance of Nigerian Deposit Money Banks.

2. Brief Methodology

This research is a causal-comparative study. It is so because it attempts to determine the cause and effect existing between the two variables, namely, CSR expenditure and financial performance. It is regarded as correlation research because the study reveals degree and the extent to which and the directions of relationship existing between the two variables. Due to its nature therefore, the research employed a secondary data, collected from Annual Financial Reports and Annual Statements of Accounts. The study premised its analysis of CSR sourced from Annual Reports of Nigerian Deposit Money Banks. The research analyses data on CSR expenditure and its resultant effects on financial performance based on records reported in the Banks' Financial Reports and Annual Account for over a 10-year period, 2005-2014.

The study examines the relationship between the CSR and financial performance. The research specifically examines how change in the rate of expenditure on CSR influences change in financial performance of the banks over time; and vice versa. The study employed a regression model to examine the effect of CSR on financial performance of banks and vice versa. However, unlike previous researches, this research was conducted in two opposite directions; the first direction is where CSR expenditure is the dependent variable, the financial performance (PAT, ROA, ROE and ROD) as independent variables; while the second direction is where CSR expenditure is the independent variable, whereas financial performance measures (PAT, ROA, ROE and ROD) are the dependent variables.

The population of the study is the entire Nigerian Deposit Money Banks. There are twenty-one (21) consolidated banks in Nigeria as at 2015 (Central Bank Report 2015). Selection of Nigerian banking industry is due to the researcher's interest on the activities of Banking sector in general and the CSR issues in particular. Another reason for the selection of the sector for this study is the fact that all these banks are incorporated and listed on the Nigerian Stock Exchange (NSE) and therefore are compelled by law to disclose their CSR activities. It is evident that studies on CSR are rare in the industry (Visser, 2005; 2006; Helg, 2007), especially CSR and financial performance studies, even though the activities of such organizations have positive impact on the economy. The banks studied are as follows, (1) Access bank, (2) Diamond bank, (3) Fidelity bank, (4) First City Monument bank (FCMB), (5) First Bank, (6) United Bank for Africa, (UBA), (7) Guaranty Trust Bank (GT), (8) Union Bank, (9) Wema bank, (10) Unity Bank, (11) Sterling Bank, (12) Stanbic IBTC Bank, and (13) Zenith bank.

3. Aggregate Dataset of Banks

Specifically, we present descriptive data on the performance of the 13 banks in CSR and PAT. The analysis is meant to understand the aggregate and individual performance of the banks with respect to the variables in question. However, Table 1 presents the aggregate data sets for the banks with a view to appreciate the behaviour of the key variables in each year for the period of ten years, 2005-2014.

Table 1: Banks Yearly Aggregate Datasets for CSR & PAT

Year	CSR	PAT	% OF CSR ON PAT
2005	337,387,449.00	42,552,862,000.00	0.79
2006	843,370,108.00	68,606,061,000.00	1.23
2007	1,738,174,128.00	114,651,947,000.00	1.52
2008	3,186,540,004.00	169,167,439,000.00	1.88
2009	3,942,654,193.00	21,892,748,000.00	18.01
2010	2,340,668,465.00	283,529,972,000.00	0.83
2011	3,113,208,661.00	48,248,675,000.00	6.45
2012	3,145,544,090.00	402,181,259,000.00	0.78
2013	5,106,120,500.00	345,675,688,000.00	1.48
2014	5,733,973,544.00	442,227,730,000.00	1.30
Total	**29,487,641,142.00**	**1,938,734,381,000.00**	**1.52**

Source: Banks' Annual Financial Reports & Statements of Account

Table 1 above presents the aggregate data on the variables. Specifically, it contains the yearly aggregate data on CSR expenditure and cumulative PAT of the banks. It is vividly indicated in the table that in 2005 the banks made a profit of ₦42, 552,862,000.00 and spent ₦337, 387,449 on CSR programs. This expenditure on CSR represents 0.79% of the bank's total PAT spent on CSR. In 2006, the expenditure on CSR increased to ₦843,370,108,why the banks recorded an increase in their profit at ₦68,606,061,000.Thus, there was also a corresponding, albeit, negligible increase on CSR spending to 1.23%. The CSR expenditure in 2007 rose to ₦1, 738,174,128 signifying increase in the percentage of PAT on CSR at 1.52%. This was also observed in the banks' profit of the same year, the PAT recorded ₦114, 651,947,000. In 2008, the banks' expenditure on CSR increased to ₦3,186,540,004whilethe PAT also increased from ₦114,651,947 in 2007 to ₦169,167,439,000.This represents 1.88% CSR on the total PAT of the banks in the same year. This increase in PAT is specifically observed in the disaggregated data (see Appendix I).In 2009 the CSR expenditure increased to ₦3,942,654,193, unfortunately, the PAT of that year decreased drastically from ₦169,167,439,000 to ₦21,892,748,000. This could be attributed to loss incurred by some banks during this period. The banks are: Sterling, Union, Unity and Wema banks as shown in the disaggregated data analysis (see Appendices I & II) Nevertheless, this perhaps explains why CSR spending in 2009 stood at 18.01% representing the highest during the period under review.

In 2010, the banks' expenditure on CSR decreased to ₦2, 340,668,465 representing 0.83%. This might have been caused by large decrease in the level of PAT recorded in the previous year (i.e 2009); even though, there was PAT increase in 2010, (especially when compared to 2009). This amounted to ₦283, 529,972,000 representing 0.83% of the PAT for the year. The CSR expenditure in 2011 witnessed an increase amounting to ₦3,113,208,661 and representing 6.45 percent, even though PAT of that year decreased drastically from ₦283,529,972,000 to ₦48,248,675,000. The increase in CSR spending in 2011 might have been caused by the increase in the PAT of 2010. Similarly; the severe reduction in the level of profits of that year has contributed to the increase in the CSR expenditure. The above trend could be one of the reasons that affected the 2012 CSR expenditure. Thus, in 2012, the CSR expenditure witnessed a little increase to ₦3, 145, 544, 090, which represents only 0.78 percent of the total CSR on PAT of the year. However, PAT in that year also witnessed a significant increase of ₦402, 181,259,000 from ₦48, 248,675,000. The 2013 CSR expenditure increased to ₦5,106,120,500, which represents 1.48 percent of its total PAT, but PAT reduced from ₦402,181,259,000 to ₦345,675,688,000. Lastly, in 2014, the CSR expenditure by the banks increased to ₦5, 733,973,544, representing 1.30 percent of PAT, while the PAT of that year also increased to ₦442, 227,730,000.

It is important to note that the banks made the highest CSR expenditure in 2014 cumulatively recorded the highest profits in 2014 and 2012. This trend was also evident in the disaggregated data, where the banks were found to be relatively similar in incurring huge profits in 2013 and 2014 than in other years, (see Appendix One and Two). In sum, the total CSR amount spent by the banks was ₦29, 487,641,142, while the banks recorded the PAT of ₦1, 938,734,381,000 during the period under study.

It is equally vital to note that the highest percentage of profit spent on CSR initiatives was recorded in 2009 (18.01%), simply because in 2009 low profit was recorded by the sector. Followed in this regard was 2011, with 6.45 % of its total profit spent on CSR despite the low profit incurred during the year. In 2007 the banks spent 1.52% of its total profits on CSR programs, even though the sector made huge profits that year, while in 2013 1.48% of the total profits of the banks were spent on CSR programs. In 2014, 1.30% was committed to CSR programs, and this is the year that the banks recorded the highest profits. From 2006 through to 2014, 1.23% was spent on CSR. In 2010, the percentage of PAT on CSR of the sector dropped to 0.83 even though the sector made reasonable profits. In 2005 the Banks spent 0.79% of total profits on CSR initiatives despite the fact that they recorded low profit. A slight decrease in the percentage of PAT on CSR was recorded in 2012 where, 0.78% was committed to the CSR programs.

In sum, the trend of the above statistics is that from 2005 to 2009, the percentage of PAT on CSR rose irrespective of the behaviour of profits of each year. However, the Banks experienced a change in the trend in 2010 where the percentage of PAT committed to CSR reduced to 0.83, but it has overshot in 2011 (6.45%), while it has reduced in 2012 (0.78%), but also increased in 2013 (1.48%) and slightly reduced in 2014 (1.30%). This is caused by massive competition in the sector caused by merger and acquisition, each bank trying to be unique in the sector i.e. trying to compete well with the remaining banks and if possible take the lion share of the market.

3.1. Banks Aggregate Expenditure on CSR and PAT

Table 2: Banks' Aggregate CSR and PAT

Banks	CSR	PAT	% OF CSR ON PAT BY BANKS
Access	1,588,950,279	42,636,199,000.00	3.73
Diamond	2,850,774,062.00	79,903,260,000.00	3.57
FCMB	1,434,908,750.00	48,582,333,000.00	2.95
Fidelity	611,338,962.63	75,073,144,000.00	0.81
First Bank	7,243,283,325.98	396,397,000,000.00	1.83
GTB	2,530,610,464.00	441,190,807,000.00	0.57
Stanbic	667,590,376.00	63,276,977,000.00	1.06
Sterling	543,825,000.00	31,722,834,000.00	1.71
UBA	1,891,197,632.00	208,523,000,000.00	0.91
Union	692,753,366.00	55,304,000,000.00	1.25
Unity	734,384,813.65	-17,200,386,000.00	-4.27
Wema	234,983,492.00	-65,209,281,000.00	-0.36
Zenith	8,463,040,618.00	446,345,862,000.00	1.90
Total	**29,487,641,141**	**1,938,734,381,000.00**	**1.52**

Source: Banks' Annual Financial Reports & Statements of Account.

Table 2 presents the aggregate data set of the variables for the banks. This is done for easy understanding of the data prior to the inferential analysis. The table contains the bank-by-bank expenditure on CSR and their PAT. Accordingly, expenditure on CSR by Access Bank for the period of ten years stood at ₦1,588,950,279, while the bank's PAT of the ten-year period stood at ₦42,636,199,000.This represents 3.73% of PAT spent on CSR programs. Diamond Bank recorded the total CSR expenditure of ₦2, 850,774,062 with a total PAT of ₦79, 903,260,000 representing 3.57%. FCMB spent the total sum of ₦1, 434,908,750 on CSR programs despite the PAT of ₦48, 582,333,000 indicating 2.95%. Fidelity Bank recorded the CSR expenditure of₦611, 338,962 in ten years under study, and it recorded ₦75,073,144,000 PAT within this period representing 0.81% of its profits had been committed to CSR expenditure.

First Bank spent ₦7, 243,283,325 on CSR programs in ten years and earned a profit of ₦396, 397,000,000 within the period. This represents 1.83% PAT being committed to CSR expenditure. GT Bank has the total CSR expenditure of₦2, 530,610,464, with a total PAT of ₦441, 190,807,000. This represents 0.57% of PAT committed to CSR programs. Stanbic IBTC has a total CSR expenditure of₦667, 590,376 representing 1.06%, while recorded a profit of N63, 276,977,000. Sterling bank has a total expenditure on CSR of₦543, 825,000, with a total PAT of ₦31, 722,834,000, which amounts to 1.71% of their total profits on spent CSR programs. UBA spent N1,891,197,632 on CSR and recorded N208,523,000,000 PAT during the study period under review, and this represents 0.91% of the total profits been spent on CSR. Union Bank spent the sum of ₦692, 753,366 on CSR programs and recorded the PAT of N55, 304,000,000, which indicates that 1.25%has been committed to CSR expenditure. Unity Bank recorded a total expenditure on CSR of N734, 384,813, while incurred losses amounting to ₦17, 200,386,000 within the period, which indicates -4.27% loss. Wema Bank spent a total sum of ₦234, 983,492, but unfortunately has recorded a loss of N-65,209,281,000 during the period indicating -0.36% loss. Thus, the negative values recorded by Unity and Wema Banks affected ther CSR expenditure negatively. Again, due to losses recorded by these banks, any amount expended on CSR did not represent spending from profits. In the actual sense, shareholders' monies were used to conduct CSR activities. Zenith Bank spent a total of₦8,463,040,618 on CSR programs representing only 1.90% and recorded a sum of N446,345,862,000 as PAT over the ten-year period. All together the 13 banks spent ₦29, 487,641,141 on CSR programs over the ten-year period and recorded the sum total of PAT of ₦1, 938,734,381,000.

From the foregoing analysis, it is important to note that on the whole, Zenith bank has the highest profits of ₦446,345,862,000 more than all the other banks within the study period and it has also recorded the highest CSR expenditure of ₦8,463,040,641,141 more than all the banks. But the CSR has only represented about 2% of its total profits. GT Bank has a profit next to Zenith bank with an amount of₦441, 190,807,000. Even though First bank was next to Zenith Bank in terms of CSR expenditure, yet the bank spent a total of ₦7, 243,283,325 as its CSR expenditure representing 1.83% of its total PAT. Conversely, Wema Bank recorded the least profit and high level of losses and correspondingly has the least CSR expenditure of N234,983,492, than all the banks under study, representing -0.36%. Similarly, Unity and Wema Banks incurred serious losses during the study period. It is observed that Sterling bank spent least amount on CSR close to Wema Bank with ₦543, 825,000.

In sum, Access bank recorded the highest percentage of their total profits to CSR at 3.73%. Followed in this direction is Diamond bank, which committed 3.57% of its ten- year profits on CSR programs, even though Access bank recorded fewer profits than the Diamond bank. FCMB spent 2.95% of its total PAT on CSR within the ten-year period. Zenith bank spent 1.90% of its profits on CSR. In this order, First bank became next to Zenith bank. It committed 1.83% of its profits to CSR. Sterling bank donated 1.71% of its Profits to CSR, Union bank spent 1.25%, Stanbic Bank committed 1.06%, UBA recorded 0.91%, and Fidelity committed 0.81% of its total PAT to CSR, according. While GTbank spent 0.57% for the CSR programs, Wema bank recorded a loss of -0.36%. Similar to this is the Unity bank; it has recorded a loss of -4.27%. This was caused by some factors; including, (i) huge losses incurred by the banks during the period. For example, Wema bank recorded losses in 2006, 2009, 2011 and 2012; Unity bank experienced loss in 2008, 2009 and 2011 (see Appendix II) (ii); the consistency of the banks to CSR expenditure despite the losses incurred during the years under investigation, (see Appendix I).

It is observed that the banks with the low profits tend to have high percentage of CSR. Example, for Access, FCMB and Diamond banks, the reason was because their profit is low. This led to high proportion of the percentage. However, those banks with relatively high profits such as GTB, Zenith and First Bank tend to commit meagre percentage of their total profits, (even though the amount is large). The reason being that the amount committed to CSR is not significant compared to huge profits recorded within the period.

4. Interpretations of Results

Inferential analysis of the aggregate sample was conducted. It is an analysis of multiple regression of the dependent variable on the four independent variables—CSR expenditure on the three independent variables of ROA, ROE and ROD. Thus it addresses the first research objective and its corresponding research question, which states that: "*what is the significant effect of financial performance on CSR expenditure of Nigerian Deposit Money Banks*". The result of the analysis is presented in Table 3.

Table 3: Inferential Result of Aggregate Data

Independent Variables	Dependent Variable CSR Expenditure			Multicolenearity Test (VIF Value)
	Pooled OLS	**Random Effect**	**Fixed Effect**	
ROA	-4.0535**(0.080)**	-3.65562**(0.090)**	-2.9900**(0.169)**	2.15
ROE	0.08362**(0.022)****	.06268**(0.070)**	.0383276**(0.281)**	1.67
ROD	-9.7102**(0.000)*****	-8.77916**(0.000)*****	-7.648551**(0.001)*****	1.51
PAT	0.25820**(0.000)*****	.21319**(0.000)*****	.1626361**(0.004)*****	1.38
R^2	0.38	0.3789	0.3576	
Overall p-value of the Model: 0.0000				
Model Summary				
Langragian Test for Random Effect				
Chi Square	9.52**(0.0010)*****	Remark: Significant, therefore Pooled OLS selected		
Hausman Test for Fixed Effect				
Chi Square	9.30**(0.0540)**	Remark: Not Significant, therefore Random effect Selected		
Heteroskedasticity Test				
Chi Square	56.15**(0.0000)*****	Remark: significant, the null hypothesis is rejected and conclude there no heteroskedasticity		

1%(***) 5%(**) Source: Author's Computation Using STATA Version 13

Table 3 presents the regression results of the aggregate data, and shows the results of the first objective and its corresponding hypothesis. It is a multiple regression model, where CSR expenditure (current CSR expenditure hereafter) was used as the dependent variable, and the financial performance measures in form of ROA, ROE, ROD, and PAT were regarded as independent variables. The analysis reveals that when previous ROA was regressed against the current CSR expenditure, the results indicated insignificant negative influence on current CSR expenditure at 5% level of significance (0.080). This is obtained under all the estimators; pooled-OLS, random effect and fixed effect models, each at -4.0535, -3.655622 and -2.990002, respectively. For the previous ROE and current CSR expenditure, the results indicate a positive but insignificant influence. This is obtained under all the parameters, pooled-OLS, and fixed and random effects models of 0.08362, 0.038326 and .06268 at 5% level of significance.

As for the previous ROD when regressed as independent variables, while current CSR as dependent variable, the results of all the three estimators pooled-OLS, fixed and the random effect models yielded a statistically significant negative effect at -9.7102, -7.648551 and -8.77916, respectively, (see Appendix III) at 5% level of significance. This connotes that previous return on deposit decreases banks expenditure on CSR.

As for the previous PAT, when used as the independent variable, while current CSR as the dependent as depicted in the multiple regression model above, the results of all the estimators; pooled-OLS, random effect and fixed effect revealed a statistically strong positive effect. This is at 5% level of significance; thus pooled-OLS (0.25820), random effect (0.21319) and fixed effect (0.1626361) with the p-value of 0.000. In sum, on the overall simultaneous model, the p-value reveals a highly statistical significant p-value of 0.0000 at 5% level of significance (see Appendix III).

The above analysis also reveals that in general and when combined, the previous financial performance measures are positively and strongly influencing the current CSR expenditure. This further indicates previous ROA, ROE,

ROD and PAT simultaneously have a strong positive effect on current CSR expenditure. This symbolizes that, better financial performance can lead to increase in CSR expenditure; thus, the p-value of the model is 0.000 indicating a highly significant association at 5% level.

The R^2 is the coefficient of determination, which tests the fitness and strength of the model. The value shows the variation in the current CSR is explained by changes in the previous financial performance measures, the models stood at 0.38(38%) for the pooled OLS, 0.37 (37%) random effect, and 0.36 (36%) fixed effect. This implies, therefore, that the model for this study could be used to forecast CSR fairly.

The table also presents the result of langragian multiplier (LM) test for the random effect model. The LM test helps in making decision between the random effect and pooled-OLS regressions. The null hypothesis in the LM test is that variance across entities is zero, which means no significant difference across units (i.e. no panel effects). However, it indicatesa significant result at 1% level of significance, therefore, pooled-OLS was selected.

The Hausman test for fixed effect reveals a Chi-square value of 9.30.This is a statistically insignificant result on the part of fixed effect model. On this basis, random effect model found suitable and thus considered as the best model for this study. The table also presents the heteroskedasticity test. This was conducted to find out if the variance is not equal so as to know the best alternative model to select. The result reveals the Chi-square value to be at 56.15, indicating 1% level of significance. Based on this result the null hypothesis is rejected and concludes that there is no heteroskedasticity.

The Variance Inflation Factor (VIF) test was also conducted and it is presented in Table 3 above. The VIF measures how much the variance of the estimated regression coefficients are inflated as compared to when the predictor variables are not linearly related. It describes how much collinearity (correlation between predictors) exists in regression analysis. It measures the impact of collinearity among the variables in regression model. It is always greater than or equals to 1, however, going by its rule, the ROA, ROE, ROD and PAT have the values of VIF of 2.15, 1.67, 1.51 and 1.38, respectively. According to Katos (2004) if VIF of a variable exceeds ten, then this variable is collinear to the others, thus, a VIF of 1 less than 5 is moderately correlated. In observing the VIFs for the four independent variables in the table, it could be concluded that it is unlikely that multicollinearity influence this regression results. This indicates that the test reveals a moderately correlated result of VIF, which means the variables are not inflated, and thus fit for the regression model.

5. Discussion of the Aggregate Inferential Analysis

The aggregate inferential results are presented in Table 3. The equation states the determination of the effect of previous financial performance measures (ROA, ROE, ROD and PAT) on the current CSR expenditure by Nigerian Deposit Money Banks (DMBs). It is important to note here that the first equation considers CSR as the dependent variable, while financial performance measures as the independent variables.

The previous financial performance (ROA) here depicts statistically insignificant negative effect on present CSR expenditure under three estimators; pooled OLS, Random and Fixed effect. This is in line with the findings of Lopez, Garcia, and Rodriguez (2007); Lungu et al (2011); Bello (2012); Abiodun, (2012); Hirigoyen and Poulain-Rehm (2015); Marfo, Chen, Xuhua, Antwi and Yiranbon (2015). This indicates further that, the effect of previous ROA on present CSR expenditure runs in opposite directions, as ROA increases, the CSR decreases. This also means that, the revenue earned from total assets of Nigerian DMBs has detrimental effect on the funds meant to be spent on CSR programs and projects.

The results also reveales the effect of previous ROE on current CSR to be statistically significant with positive effect under pooled OLS, fixed and random effect models. This explains how good DMBs in Nigeria are in effective and efficient utilization of their shareholders' equity to gain more earnings. It signifies that DMBs in Nigeria grew larger and their shareholders' equity equally increased thereby leading to increase in their revenues. On the basis of this, however, the study documents a significant positive influence of previous financial performance in form of ROE on DMBs in Nigeria, as financial performance (ROE) increases, the CSR expenditure also increases, which means that, past returns on equity makes banks in Nigeria to spend more on CSR programs for the betterment of their host communities. This is in line with many previous researches in this

area (see Uadiale and Fagbemi, 2012; Islam, 2012; Kabajeh, Nu'aimat and Dahmash, 2012; Dewi, Sudarma, Djumahir and Ganis, 2014; Saleh, et al. 2012; Trang and Yekini 2014).

Nevertheless, the previous ROD regression results reveal a statistically significant negative effect on present CSR expenditure. This is obtained under all the parameters−pooled-OLS, fixed and random effect models. This suggests that, the previous financial performance in form of returns on deposits of customers of DMBs in Nigeria has an inverse influence on the present expenditure on CSR, hence, it decreases it. This means that, financial performance measure in this regard decreases the capacity of spending on CSR programs by DMBs in Nigeria. The variables run in conflicting directions. This result agreed with the findings of Makni, Francoerur and Bellavance, (2008), Abiodun (2012), Kabajeh et al (2012); and Adam, (2014).

Conversely, the results of the regression on the impact of previous PAT on current CSR expenditure revealed statistically strong positive effect between the two variables under study. This has been observed under all the parameters; pooled-OLS, Random and Fixed effects (see Appendix III). This implies that, profits made by DMBs in previous years determine the financial commitment that could be made on current CSR activities. Thus, as the profit increases; banks are strongly likely to increase their expenditure on CSR projects in Nigeria. The implication of this result is that, increase in profit stimulates CSR programs. Accordingly, it is only when the banks are financially strong that they would be able to give something good back to their society in form of CSR. This implies that the more the profit recorded by firms in Nigeria the more they would invest in corporate social responsibilities. This is in line with the literature in CSR-financial performance link both in Nigeria and the developed countries. No doubt, previous financial performance in form of profits influences the banks' decision on spending more to their host communities; all the models employed in this study confirm this assertion. This is found with large portion of the literature. Thus, this study is consistent with Karagiargos (2010); Bolanle*et al*, (2012); Shehu (2013); Mahbuba and Farzana (2014).

The Table 3 also indicates that the p-value of the combined model reveals 0.0000.This explains the adequacy of the model in the association and effect of independent variables on the dependent variable. In other words, when regressed simultaneously, the measures of financial performance had strong positive effect on CSR expenditure and statistically significant result was obtained. This signifies that increase in financial performance could lead to better CSR programs by DMBs in Nigeria. Cumulatively, financial performance has positive influence on the CSR expenditure in the banking sector in Nigeria.

6. Statistical Analysis of Simple Linear Regression

Here an analysis of simple linear regression where one dependent variable was regressed against one independent variable. The analysis addresses the second research objective and its corresponding research question, which states that: "*what is the significant effect of CSR expenditure on financial performance of Nigerian Deposit Money Banks".* The Table 4 presents the analysis of the second model developed for this study, which explores the reverse approach of the first model to examine another aspect of CSR-FP link.

Table 4: Statistical Analysis of Simple Linear Regression

Variables	**Independent Variable: Lag CSR Expenditure**		
Dependent Variables	**Coefficient**	**P- Value**	**R-Square**
ROA	.0212231	0.002**	0.0700
ROE	1.45369	0.000**	0.1281
ROD	.0189033	0.023**	0.0399
PAT	.8684221	0.000**	0.2437

**=5% level of Significance: Source: Author's Computation Using STATA Version 13.

Unlike the previous model, Table 4 presents the reverse of the first model. The table presents the results of the simple linear regression models to obtain the effects of previous CSR on current financial performance. This means that in the model, the financial performance measures were considered as the dependent variables regressed against previous CSR as independent variable. The results indicated that all the dependent variables of ROA, ROE, ROD and PAT had positive effects on the independent variable. It is important to note that, the

ROE has the highest regression coefficients of 1.45369, followed by PAT at .8684221, and then ROA at .0212231, while the ROD is .0189033as the least among all. The p-value of the variables reveals statistically significant results of 0.0025, 0.0000, 0.0232 and 0.0000 for ROA, ROE, ROD and PAT, respectively. The result indicates that the independent variable (previous CSR) has a positive effect on the dependent variables; (ROA, ROE, ROD and PAT). The relationship is strongly and statistically significant. This further indicates that previous CSR contribute more to current ROE than others (1.45369).

The R^2 is the coefficient of determination that tests the fitness of the model at .0700, .1281, .0399 and .2437, respectively. It is opined that the coefficient of determination (R-square) in social science when examining the effectiveness of a factor, the size of R-square does not matter. Similarly, low R-square does not have any effect on the result of a model as long as its p-value is statistically adequate (Abubakar, 2014).

7. Discussions of the Simple Linear Regression

The above analysis reveals the effects of previous CSR expenditure on current financial performance. This is where the financial performance measures were used as the dependent variable regressed against CSR expenditure as the independent variable. It shows that all the financial performance measures have significant positive effect on CSR expenditure, which means that previous CSR expenditure causes increase in firms performance in the long-run, inform of ROA, ROE, ROD and PAT. This finding and analysis is similar to many other studies (see Verschoor and Murphy, 2002; Schmidt and Rynes, 2003; Margolis and Walsh, 2003; Bolanle, 2012; Rajput, Batra, and Pathak, 2012; Mwangi and Jerotich, 2013; Mahbuba and Farzana, 2013; Malik and Nadeem, 2014; Trang and Yekini 2014; Trang and Yekini, 2014; Malik and Nadeem 2014; Adeneye and Ahmed, 2015).

In addition to the above, when the ROE was used as the independent variable and CSR dependent variable; the regression coefficient of all the three estimators reveals not only statistically significant result, but also discovered positive influence on the variables investigated. Similar results have also been obtained by Cheruiyot (2010) and Islam (2012). Similarly, when regarded as the dependent variable – corporate financial performance (current ROE) and previous CSR expenditure, the simple linear regression model reveals a strong positive effect too, with a strong statistically significant result. Other studies also recorded similar result. These include Saleh, et al (2012), Murtaza, Akhtar, Ijaz and Sadiqa, (2014) and Ahmed, Almasafir& Al-smadi, (2014). Their studies also indicated bidirectional relationship between the CSR and Firms financial performance.

In similar vein, when examining the effect of previous PAT on current CSR expenditure, the regression coefficients under all the parameters reveals statistically significant positive effect on the two variables as also found out by the studies of Mahbuba and Farzana (2013) and Anwar and Saeed (2015). This further implies that, previous profits made by banks determine their present CSR expenses. Conversely, the CSR expenditure was regarded in this second model as previous variable (independent), while the current PAT (dependent) the regression coefficient of the simple linear regression model reveals a strong statistically significant and strong positive effect of independent on dependent variables investigated. The implication of this result is that, there is bidirectional relationship. The idea of a virtuous circle is also derived from this discussion that is banks with good financial performance invest in social responsibility and the investment in social responsibility help obtain a greater return, which allows them to reinvest in social responsibility, and so forth.

In contrast, for the ROA-CSR effect, the results differ a little with what is obtained in ROE and ROD-CSR effect. Moreover, it is important to recall that when ROA was considered as an independent variable and regressed against dependent variable of CSR expenditure, (i.e. first model), the result revealed negative effect obtained under all the three estimators of pooled OLS, Random and Fixed effect models though not significant at 5% level of significance. Surprisingly, at the second model, where ROA was considered a dependent variable and CSR as independent variable, the simple linear regression coefficient, revealed a positive effect of previous CSR expenditure on current ROA. This findings are similar to the findings of Yang et al, (2010); Weshah, Dahiyat, Awwad and Hajjat (2012); Murtaza et al (2014); Malik and Nadeem (2014), signifying that, previous CSR has a positive impact on current ROA. This indicates that increase in CSR expenditure causes an increase in financial performance when ROA was used as a measure of financial performance. Their finding symbolizes a unidirectional relationship too. The variable — previous ROA did not cause current CSR expenditure but the reverse is the case. However, in the second model, increase in CSR also increases firm financial performance in this regard.

Similar to the above result is what has been obtained during investigation on the effect of the past ROD on present CSR. When previous ROD was regressed against current CSR expenditure, the effect revealed statistically significant negative effect on the investigated variables; this means that previous ROD does not only impact current CSR negatively, but also caused inverse effect on it. Conversely, during the second model, and when used as the dependent variable, the current ROD with previous CSR expenditure, the result of simple linear regression model revealed positive effect and statistically significant; this means that previous CSR influences current return on deposits by customers. Accordingly, there is unidirectional relationship between the variables, signifying further that CSR expenditure causes more returns from customers' investment in Nigerian banks. This finding is supported by Yang *et al* (2010) and Hirigoyen and Poulain-Rehm(2015) studies.

8. Conclusion and Recommendations

Based on these findings, it could be concluded that CSR activities are *good thing to do*, not only philosophically — ethically; it is about *giving back to society* to address socio-economic problems. Essentially it is also good for businesses—the DMBs employ CSR to boost profit for shareholders and for sustainability. As CSR becomes a universal value and language of fruitful and sustainable relationship between business organizations and society, not only businesses are engaging it in their own right and benefit, but societies are also asking for it. Thus, business organisations tend to spend on CSR even when losses are recorded. This is the reason why in Nigeria some DMBs expend on CSR even when they recorded losses during a financial year. Premised on the findings of this study, it could be recommended that:

i. Deposit Money Banks in Nigeria should continue to engage in CSR activities. This is because of the causative effect of CSR on financial performance (which this study and other empirical researches evidently confirmed). CSR is good for financial performance (measured especially by ROE and PAT) and anything good for performance is philosophically and pragmatically desirable by business organizations.

ii. To address fluctuation problems in the CSR-FP relationship, DMBs should within the framework of their operation continue to diversify and generate more profit. This will enable them to satisfy the interest of shareholders, engage in CSR activities and be sustainable.

iii. Banks should be encouraged to engage in CSR only in productive areas. The drivers of CSR in Nigeria are acute and dangerously widespread and deepening. If business organizations are left on their own to decide on CSR, obviously, they will prefer expending in areas that would save their profit-making-interests. This will help in providing a balance on sector-by-sector CSR programmes and expenditure will be in order of needs of sectors

iv. Bank should be encouraged and/or mandated to establish guiding principles on CSR expenditure. This will help not only for the Banks to measure impact of their CSR on different sectors of the economy, expend in order of preference and needs of host communities, but will also easily and cumulatively measure their CSR performance on the overall development of the economy. Guiding principles will also enable efficient and effective Banking operations *vis-à-vis* CSR performance and activities.

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APPENDICES

1. APPENDIX I

Total Yearly CSR Expenditure of DMBs in Nigeria, 2005-2014 (₦)

Banks	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Access	6600000.00	7050000.00	4536200.00	160856000.00	15622000.00	1038310000.00	18297000.00	17322920.00	39100000.00	36183259.00	1,588950279
Diamond	9983062.00	7540000.00	1556000000.00	1210000000.00	89000000.00	2491730000.00	55063300.00	21435200.00	50363300.00	8820000000.00	2,850,774,062.00
FCMB	1863500.00	2400000.00	34846530.00	8123400.00	12457092.00	77612057.00	82285221.00	22710500.00	43954252.00	36344893.00	1,434,908,750.00
Fidelity	16050000.00	1757794.00	7073300.00	12849850.00	8063553.00	19499000.00	65032333.00	41320000.00	1851367324.63	25455600.00	611,338,962.63
First	67981000.00	119887000.00	304808000.00	438729000.00	96745888.00	887743640.98	96859872.00	1044782368.00	1248783961.00	1194510700.00	7,243,283,325.98
GTBank	27347000.00	17634000.00	123158465.00	139737110.00	24615089.00	261239187.00	29749313.00	36475086.00	63199191.00	421107900.00	2,530,610,464.00
STANBIC	1553500.00	1553500.00	32131523.00	11611000.00	81310000.00	50751000.00	66705717.00	15436386.00	10514217.00	16246809.00	667,590,376.00
Sterling	3889000.00	3889000.00	8575000.00	8357200.00	25355000.00	16318000.00	28056000.00	11776000.00	17632100.00	8009000.00	543,825,000.00
UBA	20489532.00	6502600.00	381510856.00	307000000.00	58490000.00	59870000.00	10215730.00	87490250.00	42110790.00	38805794.00	1,891,197,632.00
Union	29946704.00	30720286.00	35231000.00	51846842.00	93384842.00	57857580.00	28350990.00	87203822.00	54976300.00	22323500.00	692,753,366.00
Unity	69439347.00	69439347.00	36300000.00	101700931.00	11403859.65	53000000.00	22426191.00	27586902.00	52285000.00	18816500.00	734,384,813.65
Wema	5500000.00	20190000.00	16680000.00	14439992.00	18611500.00	774000.00	2500000.00	18600000.00	40200000.00	11250000.00	234,983,492.00
Zenith	76744804.00	42842318 1.00	57190945 4.00	1661963179.00	19600000000.00	50300000000.00	71600000.00	58700000.00	85600000.00	1102000000.00	8,463,040,618.00
Total	337387449	843370108	1738174128	3186540004	3942654193	2340668465	3113208661	3145544090	5106120500	5733973544	**29,487,641,142**

2. APPENDIX II

Total PAT of The Banks 2005-2014

Banks	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total

Access	501515000.00	737149000.00	6083439000.00	16056464000.00	2288579400 0.00	1293144100 0.00	13660448000.00	35815	26211844000.00	39941126000.00	174,824,831,000.00
Diamond	2526552000.00	4287685000.00	6930754000.00	11822011000.00	-4883446000.00	6522455000.00	-22187848000.00	23073427000.00	29754472000.00	22057198000.00	79,903,260,000.00
FCMB	797795000.00	2841380000.00	5805857000.00	13720470000.00	3465812000.00	7322322000.00	-10322664000.00	13466424000.00	608802900 00.00	539690800 00.00	48,582,333,000.00
Fidelity	12367900000.00	3162347000.00	4160007000.00	12988000000.00	2298000000.00	5828000000.00	595900000 00.00	17924000000.00	772100000 00.00	13796000000.00	75,073,144,000.00
First	12184000000.00	16053000[illegible]	1835500000 0.00	30473000000.00	3507400000 0.00	2693600000 0.00	47462000000.00	71144000000.00	59365000000.00	79351000000.00	396,397,000,000.00
GTBank	5330796000.00	8677506000.00	1301314600 0.00	28089287000.00	3077725700 0.00	3932025500 0.00	51741620000.00	85263826000.00	85545510000.00	93431604000.00	441,190,807,000.00
STANBIC	2358155000.00	4124020000.00	694200000[illegible]	92014[illegible]	62558[illegible]	78100[illegible]	404800000 00.00	105300000 00.00	833200000 00.00	13136000000.00	63,276,977,000.00
Sterling	-4820558000.00	961645000.00	620658000.00	652315300 00.00	-6660406000.00	4178493000.00	66864753000.00	695353900 0.00	827486400 0.00	900497300 0.00	31,722,834,000.00
UBA	4653000000.00	1146800000 0.00	1983100000 0.00	40002000000.00	1288900000 0.00	-6295000000.00	-796600000 00.00	47375000000.00	46483000000.00	40083000000.00	208,523,000,000.00
Union	9375000000.00	1003600000 0.00	1212600000 0.00	24737000000.00	-7105200000 0.00	1180160000 00.00	-76711000000.00	317000000 00.00	512100000 00.00	20486000000.00	55,304,000,000.00

Unity	409606000.00	1370490000.00	720843000.00	-132450000000.00	-1585585500.00	1241547300.00	269385900.00	618006100.00	-225823390000.00	106924760000.00	-17,200,386,000.00
Wema	84428500.00	-6601961000.00	2554098000.00	-577387390000.00	-1166840800.00	1623853300.00	-811621300.00	-504062900.00	194730800.00	237244500.00	-65,209,281,000.00
Zenith	7155926000.00	1148880000.00	1750914500.00	465249910000.00	1836500000.00	3230500000.00	413010000000.00	958030000000.00	834140000000.00	924790000000.00	446,345,862,000.00
Total	42,552,862,000	35,396,936,000	114,652,000,000	169,167,439,000	21,892,748,000	283,529,972,000.00	48,248,675,000.00	402,181,259,000.00	345,675,688,000.00	442,227,730,000.00	**1,938,734,381,000.00**

3. APPENDIX III

REGRESSION RESULT FOR THE AGGREGATE DATA

Pooled OLS Regression

```
reglcsr roalag1 roelag1 rodlag1 lpatlag1
      Source |       SSdf       MS              Number of obs =     112
-------------+------------------------------   F(  4,   107) =   16.59
       Model |  22.4111448     4  5.60278621     Prob> F       =  0.0000
    Residual |  36.1256964   107   .33762333     R-squared     =  0.3829
-------------+------------------------------   Adj R-squared =  0.3598
       Total |  58.5368412   111   .52735893     Root MSE      =  .58105
------------------------------------------------------------------------------
lcsr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
roalag1 |  -4.053688   2.293526    -1.77   0.080    -8.600337    .4929606
roelag1 |   .0836205   .0360648     2.32   0.022     .0121264    .1551147
rodlag1 |  -9.710243   2.172881    -4.47   0.000    -14.01773   -5.402759
lpatlag1 |   .2582052   .0557455     4.63   0.000     .1476962    .3687141
      _cons |   2.282483    1.24842     1.83   0.070    -.1923633    4.757329
```

Random Effect Analysis

```
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FUBKEBBI
Notes:

1. You are running Small Stata.

```
xtreglcsr roalag1 rodlag1 roelag lpatlag1, re
Random-effects GLS regression                   Number of obs=       112
Group variable: code                            Number of groups   =        13
R-sq:  within  = 0.1942                         Obs per group: min =         5
between = 0.7518                                               avg =       8.6
overall = 0.3789                                               max =        10
                                                Wald chi2(4)       =     42.37
corr(u_i, X)   = 0 (assumed)                    Prob> chi2         =    0.0000
------------------------------------------------------------------------------
lcsr |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
roalag1 |  -3.655622   2.159302    -1.69   0.090    -7.887777    .5765326
rodlag1 |  -8.779155    2.15612    -4.07   0.000    -13.00507   -4.553238
roelag1 |   .0626895   .0346428     1.81   0.070    -.0052092    .1305881
lpatlag1 |   .2131899    .053915     3.95   0.000     .1075184    .3188614
      _cons |   3.302419   1.210038     2.73   0.006     .9307888    5.674049
-------------+----------------------------------------------------------------
sigma_u |   .2198333
sigma_e |  .52040926
rho |  .15142191   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

Fixed Effect Analysis

```
xtreglcsr roalag1 rodlag1 roelag lpatlag1, fe
Fixed-effects (within) regression               Number of obs=       112
Group variable: code                            Number of groups   =        13
R-sq:  within  = 0.1999                         Obs per group: min =         5
between = 0.7113                                               avg =       8.6
overall = 0.3576                                               max =        10
F(4,95)           =      5.93
corr(u_i, Xb)  = 0.3821                         Prob> F            =    0.0003
------------------------------------------------------------------------------
lcsr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
roalag1 |  -2.990002   2.156669    -1.39   0.169    -7.271532    1.291528
rodlag1 |  -7.648551   2.235798    -3.42   0.001    -12.08717    -3.20993
roelag1 |   .0383276   .0353366     1.08   0.281    -.0318245    .1084796
lpatlag1 |   .1626361    .055659     2.92   0.004     .052139    .2731333
      _cons |   4.470476   1.250842     3.57   0.001     1.987241    6.953712
-------------+----------------------------------------------------------------
sigma_u |  .36170678
sigma_e |  .52040926
rho |  .32572967   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(12, 95) =     3.20                 Prob> F = 0.0007
vif
Variable |       VIF       1/VIF
-------------+----------------------
roelag1 |      2.15    0.464917
```

```
lpatlag1 |      1.67    0.597555
rodlag1 |      1.51    0.663791
roalag1 |      1.38    0.724107
-------------+----------------------
Mean VIF |      1.68
xttest0
Breusch and Pagan Lagrangian multiplier test for random effects
lcsr[code,t] = Xb + u[code] + e[code,t]

Estimated results:
                     |      Varsd = sqrt(Var)
             ---------+-----------------------------
lcsr |   .5273589       .7261948
e |   .2708258       .5204093
u |   .0483267       .2198333
       Test:   Var(u) = 0
chibar2(01) =     9.52
Prob> chibar2 =   0.0010
xttest3
Modified Wald test for groupwiseheteroskedasticity
in fixed effect regression model
H0: sigma(i)^2 = sigma^2 for all i
chi2 (13)  =      56.15
Prob>chi2 =      0.0000
hausman fixed
               ---- Coefficients ----
          |     (b)          (B)          (b-B)     sqrt(diag(V_b-V_B))
          |    fixed          .          Difference          S.E.
-------------+------------------------------------------------------------
roalag1 |   -2.990002    -3.655622        .6656207           .
rodlag1 |   -7.648551    -8.779155        1.130604        .5915585
lpatlag1 |    .1626361     .2131899       -.0505538        .0138238
roelag1 |    .0383276     .0626895       -.0243619        .0069679
------------------------------------------------------------------------------
b = consistent under Ho and Ha; obtained from xtreg
          B = inconsistent under Ha, efficient under Ho; obtained from xtreg
   Test:  Ho:  difference in coefficients not systematic
chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                     =       9.30
Prob>chi2 =      0.0540
            (V_b-V_B is not positive definite)
```