

Impact of Corporate Social Responsibility on Stock Price Volatility of Listed Commercial Banks in Nigeria: Moderating Role of Tax Rate

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Abstract

Corporate Social Responsibility is a vital tool utilized by banks for disseminating their ethical and corporate citizenship status which is imperative in legitimizing their duties and obligation for societal welfare. The purpose of this study is to investigate the impact of corporate social responsibility on stock price volatility of listed commercial banks in Nigeria. The study further examined the moderating role of tax on the association between corporate social responsibility and stock price volatility. The study used ex-post factor research design and adopted a census sample of thirteen listed commercial banks for a period of ten years spanning 2013 to 2022 within which Nigeria commercial banks experienced deteriorating value due to low corporate social responsibility engagements, poor quality disclosures, regulations and stock price volatility. Three proxies were used for the explanatory variable: frequency of corporate social responsibility disclosure, corporate social responsibility monetary spending ratio and corporate social responsibility expenditure and the proxy for the outcome variable is volatility and panel dataset of the study extracted from annual account and report of the census sample was analysed using OLS robust panel estimation technique to test the hypotheses and the results revealed that FCSR has a positive and significant association with stock volatility. CSRE has a positive and insignificant relationship with stock price volatility while CSRMSR has insignificant association with stock price volatility. Also the regression result shows that effective tax rate exerts positive and significant moderating influences on FCSR, CSRMSR and CSRE. Conclusively, CSR has a bidirectional impacts on share price volatility, however the bidirectional impacts are positively moderated by ETR. The implication of the findings is that banks should not over-prioritise CSR engagements also the government should consider implementation of tax regime and reduction of other levies that should attenuate the adverse effects of excessive taxes and develop a framework for monitoring and regulating CSR engagements of banks in order to ensure compliance thereby achieving reduction in stock price volatility risks which enhance bank long term sustainability

Keywords: Corporate social responsibility, Tax rate, Commercial banks, Stock price volatility

1 Introduction

Stock price volatility is a measure of the rate at which stock price of a firm's equity changes either favorably or adversely over a particular period thereby reflecting of the extent of risk facing a firm at specified time period (Camilleri et al., 2019; Josephat, 2021; Kimani & Olweny, 2021). Stock price volatility is important to investors as it provides signals for investment and divestments relative to inferred risk from the directions of such volatility (Bello, 2020; Onyele et al., 2020). The impact of risks associated with fluctuations of stock prices over time varies among different sectors due to sector specifics (Fatamasari et al., 2020; Sutrisno, 2020; Wasfi et al., 2021). However, stock price volatility of the banking sector portends high risks to other sectors due the vital roles associated with the services rendered by banks (Tasniah et al., 2021; Wang et al., 2021; Bande, 2022). This assertion has been evidenced on the grave adverse impact of stock price volatility of the US banking sector on world economy which resulted to global financial crises and the collapse of some major corporate giants (Cornett et al., 2016; Morris, 2019; Onyele & Ikwuagwu, 2020). Furthermore, the collapse of these corporate giants was consequent to deregulation, accounting fraud, poor governance practices, and managerial negligence to fiduciary obligations to shareholders and other stakeholders which culminated to stock price crash due to reputational damage and financial losses (Chouaibi et al., 2021; Morris, 2019; Gharaibe & Jaradat, 2021). Previous studies shows that commitments to CSR activities provides composite vital benefits that enhances firms reputation and financial performance which are prerequisites for reducing stock price volatility (Adu & Ajigbotoso, 2024; Ali et al., 2020; Bariweni, 2024; Huang et al., 2023)

Consequently, it is crucial to ensure high quality transparency and a review of banking sector regulation to enhance reductions on stock price volatility (Murata & Shigeyuki, 2021; Pham et al., 2020). Accordingly firms that provide quality disclosures on their financial and non-financial performance usually perform exceptionally (Buallay, 2019; Buallay et al., 2020; Olorunsiola & Usman, 2023). Moreover, previous studies found that engagements in corporate social responsibility activities enhance financial and non-financial performance of the banking sector which reduces stock price volatility (Fiordelisi et al., 2022; Gaba & Madhumanthi, 2022)

Corporate Social Responsibility is a manifestation of the stakeholder theory that requires corporate business entities to refrain from green washing and ensure genuine commitment to their corporate citizenship that enhance societal well-being (Dmytriiev & Freeman, 2021; Lisandro et al., 2024; Zhang & de Vires, 2022). Consequently, it amplifies engagements in corporate social responsibility activities that should attenuate the adverse effects of firm's operating activities and existence on other stakeholders (Budianto & Suyono, 2020; Freeman & Dmytriiev, 2017; Masum et al., 2020). Therefore, it is an embodiment of stakeholder theory which emphasises the need for firms to incorporate strategic operating procedures that generate value for those impacted by its existence (Jain et al., 2021; Theodoulidis et al., 2017; Zhang & de Vires, 2022). Accordingly, investors are favorably driven to participate in investing and financing activities of banks that adopt corporate social responsibility policies (Nguyen et al., 2022; Bande, 2022; Santis et al., 2016). This is because investors prefer banks with amplified governance, transparency and high quality disclosures on their management of resources, non-financial policies and social awareness. Previous studies show that CSR disclosures diminish information asymmetry which reduces stock price volatility (Khan et al., 2021; Ogunleye et al., 2023; Xu et al., 2022; Xiatong, 2023).

The banking sector is considered as a major contributor to economic growth and development especially in developing economies (Bande, 2022; Bimir, 2016; El-Khoury et al., 2021). Banks play active roles in economies development as well as in the social development of countries through encouraging appropriate investment policies, savings, financing projects and ensuring security of risk (Miralles-Quiros et al., 2019; Nguyen et al., 2022). Consequently, when banks volitionally perform these activities they establish positive impacts on stakeholders which enhance their reputation and endear them to investors (Kim et al., 2020; Kabir & Chowdhury, 2022)

Corporate Social Responsibility and stock price volatility are two most necessary issues that captured corporate attention after the 2007- 2008 global financial crisis which devastated many corporate giants worldwide and resulted to a precipitous deterioration in the financial fortunes of Tyco and Vivendi, Lehman Brothers, Merrill Lynch and other big companies globally (Morris, 2019; Ahmed et al., 2020). The rapid deterioration occurred due to poor disclosure quality, transparency, poor governance practices, negligence of core fiduciary duties and obligations to stockholders and other stakeholders (Aranzeh, 2022; Tasnia et al., 2021). These factors resulted to decline in firm reputation and financial deterioration which resulted in share price volatility.

Accordingly, banks that disclose financial and non-financial information in their corporate reports performs exceptionally than banks that do not make socially responsible disclosures (Abdullah &Boubaker, 2024; El Khoury et al., 2021; Ramzan et al., 2021). CSR disclosure provides evidence that a firm is committed to its social and environmental responsibilities to stakeholders thereby reducing associate business risks through improvements in corporate sustainability (Khan et al., 2021; Makau, 2024; Troung et al., 2022; Xu et al., 2022). Moreover previous studies show that CSR disclosure reduces corporate tax aggressiveness (Gazzola et al., 2023; Lian, 2022).

Corporate Social Responsibility share apparent vital common feature with tax which are evidence on their drive for enhancement of societal welfare through engagements in social and environmental activities. These features are in tandem with stakeholders and legitimacy theory. Stakeholders' theory describes the relationship between stakeholders and the firm while legitimacy theory provides a confirming nexus of the established bond between banks and the society (Dai et al., 2018; Janang et al., 2020; Zhang & de Vires, 2022).

Moreover, CSR disclosures reduce tax aggressiveness and enhance timely tax filing and payment of appropriate taxes which enhance corporate image and legitimacy of bank (Abdelfattah & Aboud, 2020; Ain et al., 2022; Alsadi, 2020). Accordingly, investors prefer banks that attain high corporate reputation and corporate moral excellence through financial tax reporting conformity and engagement in social and environmental activities (Alsadi, 2020; Girbanu & Jallai, 2017; Inger & Vansant, 2019; Koverman & Velte, 2021). Also, CSR engagements reduce effective tax rate through tax incentives. Through reductions in tax aggressiveness, CSR inhibit the possible occurrence of adverse consequences associated with corporate tax scandals which are often devastating and could degenerate to stock price volatility. However, expenditures relating to social and environmental activities are financed from shareholder's fund which could raise business owners concern over such activities.

Earlier research shows positive correlation between CSR and bank risk, where the belief is that over-prioritizing investment on corporate social responsibility activities culminates to increased operational costs and low financial performance which potentially culminate to loss

of shareholders trust and corporate failure (Chollet & Sandwidi, 2018; Nguyen and Nguyen, 2015).

Conversely, engaging in corporate social responsibility activities enhance development of a strong culture of trust and safety among different categories of stakeholders thereby, mitigating the severity of detrimental incidents that could escalate corporate risk levels and adverse consequences including corporate failure and decrease in market value of a firm (Albuquerque et al., 2020; Franco et al., 2020; Fauzi, 2022; Theodoulidis et al., 2017).

Moreover, Davis et al. (2016) argue that taxes paid by corporate entities reduce their profitability and adversely affect firm potentials for infrastructural development, job creation, payment of good salaries and liquidity. However corporate scandals relating to taxation adversely affect a firm's stock price (Abid & Dammak, 2022; Barrera & Bustaamante, 2018; Morris, 2019).

Previous literatures show a correlation between CSR and financial performance in the banking sector (EL Khoury et al., 2021; Gaba & Madhumathi, 2022; Kabir & Chowdhury, 2022; Nguyen et al., 2022; Szegedi et al., 2020). Besides, previous studies evidence positive, negative and insignificant relationship between CSR and firm risk (Amir & Chaibi, 2023; Xi, 2022; Chollet & Sandwidi, 2018; Deng et al., 2021; Nguyen & Nguyen, 2015; Nirino et al., 2022a; Wang et al., 2021; Xu, 2022). Moreover these studies were carried out in developed countries. Most current empirical studies on CSR conducted in Nigeria focused on the nexus between CSR and financial performance of corporate entities (Asemota et al., 2024; Ayeni-Agbaje et al., 2024; Igbekoyi, 2022; Ogunbiyi-Davis et al., 2024; Ogunleye et al., 2023; Olorunnsiola & Usman, 2023; Yunusa, Jerry & Ayuba, 2023).

However studies on CSR and stock price volatility in context of the Nigeria banks are limited. Besides, in Nigeria no study has been conducted on the moderating role of tax rate on CSR and stock price volatility nexus. Consequently, this study contributes to literature by investigating the impact of CSR on stock price volatility of listed commercial banks in Nigeria. The study also investigates to establish whether tax moderates the relationship between CSR and stock price volatility of Nigeria banks. Consequently, it contributes to theoretical literature by exploring the moderating role of tax rate on relationship between CSR and stock price volatility of listed commercial banks in Nigeria.

2. Literature Review and Hypotheses Development

CSR is a peremptory social and environmental responsibility of corporate entities to the society which has ripple benefits to firms (Bande, 2022). Embracing CSR provides enhancements in the micro and macro performance of banks. Consequently, adopting CSR is an important decision that helps banks to attain their corporate strategies which creates a win-win for stakeholders (Zhang & de Vires, 2022; Dai et al., 2018). Accordingly, strands of current literatures show that engagements in CSR activities create corporate reputational asset for banks (Alietal, 2020). In addition, previous studies show a positive relationship between CSR disclosure and bank financial performance (Bande, 2022; Nguyen et al., 2022).

Moreover, CSR engagements potentially enhance risk reduction in the banking sector (Albuquerque et al., 2020; Bae et al., 2021). The relationship between CSR mechanisms on risk associated with bank stocks are more convincing in high volatile environment than in low dynamism environment (Deng et al., 2021). Nguyen and Nguyen (2015), found a positive impact of aggregate CSR index on firm's risk. However, previous studies examined the

association between socially responsible firms in terms of stock prices and find that socially responsible firms experience lower stock price fluctuations (Franco et al., 2020; Khan et al., 2021). Some previous studies focused on mandatory CSR disclosure on firms' stock price risk and found that CSR reduces stock price crash risk (Roy et al., 2021; Huang et al., 2023). Moreover, Obiorah et al., (2022) show a linear relationship between CSR expenditure and firm performance and indicated that higher CSR expenditures culminate to higher financial and non-financial performance.

Previous studies investigated the effect of frequency and quality of corporate social responsibility disclosure on unethical dealings between management and stockholders and the empirical results indicate that frequency of CSR disclosure decreases asymmetric information which reduces stock price volatility (Aureli et al., 2020; Alipour et al., 2019; Hamrouni et al., 2020).

Corporate taxes are regarded as a vital component of CSR which enhance bank ethical status and legitimacy (Zhang & de Vires, 2022). Accordingly, stakeholders are more favorably disposed to investing in banks that are committed to appropriate tax filing and timely payment (Alsadi, 2020; Hillenbrand et al., 2019). Lanis & Richardson (2015) examined the association between CSR activities and tax aggressiveness and their findings showed that social and environmental commitments reduce tax aggressiveness.

2.1 Direct Relationship between CSR and Stock Price Volatility

There are existing relationships between CSR disclosure and stock price volatility. These relationships can be made intelligible by stakeholder, signaling and legitimacy theories. Legitimacy theory explains the societal perception that the behavior of a firm are desirable, ethical and acceptable within established system of norms, societal values and beliefs (Zhang & deVires, 2022; Dai et al., 2018). Therefore, it describes a firm drive to become socially responsible in pursuant of achieving organizational goals which provide safeguards in volatile conditions (Franco et al., 2020; Kabir & Chowdhury, 2022; Ali et al., 2021; Bae et al., 2021).

Accordingly, in line with the signaling theory, Xu et al., (2022) show that CSR disclosure decreases stock price volatility. However, the impact of CSR disclosure on reduction of stock price volatility is more pronounced when firms exhibit sincere engagements on CSR activities that positively impact the society and provide quality information that indicates that their engagements are not mere green washing and rhetoric (Aurelietal., 2020; Alipour et al., 2019; Khan et al., 2020).

Presently, in some developing economies, there is a trending shift in paradigm in respect of CSR literatures from volitional expenditures and disclosures to mandatory CSR regulations (Oware & Mulikarjunappa, 2022). This is because of suggestions in recent literatures that most CSR disclosures are mere rhetoric and green washing (Tansia et al., 2021). Accordingly, Khan (2021) opined that CSR reports may have little in common with actual CSR practices of firms. Consequently, CSR disclosure has gained more attention from both practitioners and scholars. Therefore company executives are starting to seek competitive differentiation from their sustainability strategies through sincere and quality social and environmental engagements (Coelho et al., 2023; Zhang et al., 2022). Moreover, Okafor et al (2020) find a linear relationship between CSR expenditures and financial performance.

Previous literatures show a positive relationship between CSR expenditures and firm financial performance (Olorunsiola & Usman, 2023; Bande, 2022). Moreover previous studies found a positive relationship between CSR expenditure and firm financial risk (Bouslah et al, 2013; Nguyen & Nguyen, 2015). Current literatures examined the impact of mandatory CSR expenditures on firm efficiency and stock prices and found mixed results (Gaoetal., 2022; Oware & Mallikarjunappa, 2022; Christensen et al., 2020). However, not much is known on the impact of CSR-monetary spending ratio on stock price volatility in context of Nigeria banking sector. In line with the foregoing, the following non-directional hypothesis was set:

H₁ There is a significant association between frequency of corporate social responsibility disclosure and stock price volatility of listed commercial banks in Nigeria.

H₂ There is a significant association between corporate social responsibility expenditures and stock price volatility of listed commercial banks in Nigeria.

H₃ There is a significant relationship between corporate social responsibility-monetary spending ratio and stock price volatility of listed commercial banks in Nigeria.

2.2 Moderating effect of tax on the association between CSR and stock price volatility

Stakeholder theory makes intelligible the relationship between firms and their stakeholders which arises from the impact of its existence and success on the society (Dmytriiev & Freeman, 2021; Freeman & Dmytriiev, 2017; Budianto & Suyono, 2020). CSR is an essentiality in enhancing bank's achievement of financial and non-financial performance (Al-Mubarak et al., 2019; Nguyen et al., 2022). Investors prefer investing in banks which are committed to CSR activities due to their positive reputation and disclosures on their CSR performance (Marwih, 2021; Buallay, 2020). However, stakeholders are concerned not only in banks value creation that amplifies profits and quality of high dividends but on overall ethical status of banks described in their CSR engagements and appropriate tax filing and payment (Alasadi, 2020).

Moreover, banks can only achieve the status of being socially responsible when they engage in appropriate tax filing and timely payments of taxes. It is necessary to postulate that refraining from tax aggressiveness is enhanced by social norms, ethics and strive to achieve legitimacy (Alasadi, 2020; Gazzola et al., 2023; Girbanu & Jallai, 2017). Corporate taxation is an essential component of CSR which ensures equilibriums in corporate performance and stock price volatility. Previous literatures show that engagement in CSR activities is vital in reducing tax aggressiveness and stock price volatility (Alsadi, 2020; Girbanu & Jallai, 2017). Besides previous studies show that good governance and CSR activities is responsible for lower effective tax rates (Nasir et al., 2022; Blaufus et al., 2016; Davis et al., 2016; Guenther et al., 2016).

Also, in computing taxable income of banks, most CSR expenditures are treated as allowable deductions which reduce taxable income thereby providing higher profit after tax. Consequently, CSR expenditures lowers effective tax rate and provide required finances for enhancements in business operations, CSR engagements which potentially inhibits stock price volatility risks.

Previous studies found that social and environmental activities reduce tax avoidance (Koverman & Velte, 2021; Oboh & Omeregje, 2021; Abid & Dammak, 2021). However, Davis et al., (2016) show a positive relationship between CSR and tax lobbying expenditure, which may result to an increase in stock price volatility due to tax lobbying. Besides, previous study found that good corporate governance is responsible for lower tax rate

(Kiesewetter & Manthey, 2017). A lower tax rate will increase corporate profits which provide good incentives for enhancements in CSR activities which may reduce stock price volatility.

Consequently, from the forgoing, based on stakeholder theory, there is an assumption that effective tax rate can moderate the association between CSR and stock price volatility. Therefore, in accordance with stakeholder theory, this study postulates that tax has the potential to moderate the association between CSR and stock price volatility. Therefore the hypotheses are presented as follow:

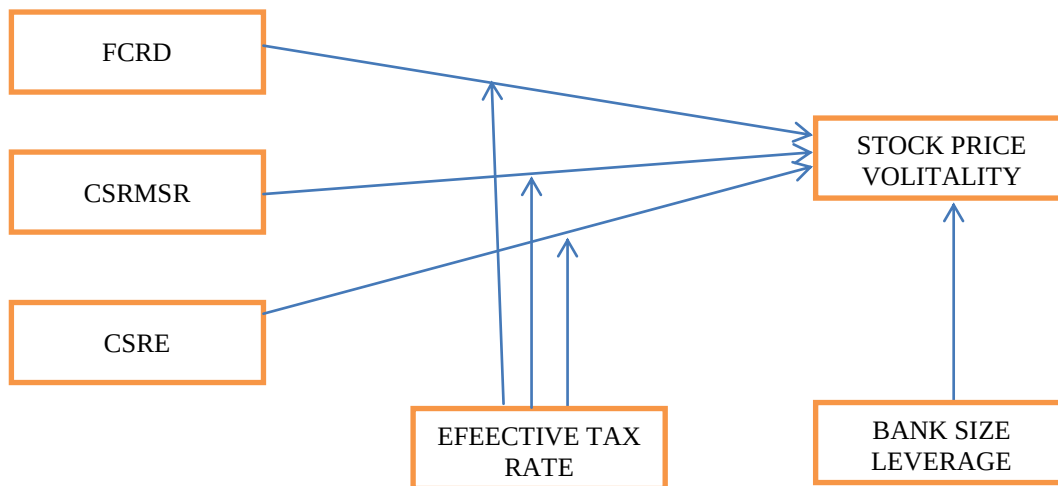
H4a: There is a significant moderating effect of effective tax rate on the relationship between frequency of corporate social responsibility and stock price volatility of listed commercial banks in Nigeria.

H4b: There is a significant moderating effect of effective tax rate on the relationship between corporate social responsibility-monetary spending ratio and stock price volatility of listed commercial banks in Nigeria.

H4c: There is a significant moderating effect of effective tax rate on the relationship between corporate social responsibility expenditure and stock price volatility of listed commercial banks in Nigeria.

2.3 Conceptual framework

The conceptual framework of the study is depicted in figure 1.



3.1 Sample Distribution, Data Transformation and Methodology

This study used a census sample of thirteen (13) listed commercial banks in Nigeria for the period of ten years. Consequently the study was based on a balanced panel data study due to availability of secondary data for the study period. The panel data set of the study was extracted from annual accounts and reports of the study sample for a period of ten years spanning 2013-2022. Although there was no missing data, data transformation was conducted on the dataset to ensure normality of data distribution and conformity with the assumptions underlying regression analysis. Besides, these enhance quality and reliability of regression results and minimise coefficient values for easier interpretation of regression analysis results (Yusuf, 2024).

Besides, within the period of the study (2013-2022), Nigeria economy experienced dwindling oil prices, soaring insecurity, corruption and excessive inflation rates which limited the productive and operational capacity of many sectors. Consequently, the GDP shrank due to reduced investments and savings thereby exposed the banks to profit

fluctuations and stock price volatility (World Bank, 2016; National Bureau of Statistics, 2016). Also, Nigeria adopted the United Nations Guiding Principles on Business and Human rights in 2015 which contains guidelines for CSR disclosures (George, 2019; United Nations, 2011). Additionally, no study in respect of CSR and stock price volatility in the banking sector was conducted in Nigeria within the period.

Furthermore most previous studies in the Nigeria banking sector concentrated on CSR and financial performance. Moreover not much has been done in developing countries in respect of empirical research on the relationship between CSR and stock price volatility in the banking sector with effective tax rate as a moderator.

In line with previous similar studies, this study used panel data in order to exercise control over unobserved and omitted variables. Consequently, the study used robust random-effects panel research model to control bias relating to omitted variables (Baltagi, 2021; Birindeli et al., 2019). Besides, the model of the study on the impact of CSR on stock price volatility of Nigeria commercial banks has been expanded to include effective tax rate as a moderating variable.

3.1 Regression Model

Based on the direct relationship between CSR and stock price volatility (H_1 , H_2 and H_3)

$$SPVit = \beta_0 + \beta_1 FCSR_{it} + \beta_2 CSRMSR_{it} + \beta_3 CSRE_{it} + \beta_4 ETR_{it} + \beta_5 BSIZE_{it} + \beta_6 LEV_{it} + e_{it}$$

Based on (H_{4a} , H_{4b} and H_{4c})

$$SPVit = \beta_0 + \beta_1 FCSR_{it} + \beta_2 CSRMSR_{it} + \beta_3 CSRE_{it} + \beta_4 ETR_{it} + \beta_5 BSIZE_{it} + \beta_6 LEV_{it} + \beta_7 FCSRDETR_{it} + \beta_8 CSRMSRETR_{it} + \beta_9 CSREETR_{it} + e_{it}$$

Where: SPVOL is stock price volatility, FCSR is frequency of corporate social responsibility disclosure, CSRE is corporate social responsibility expenditures, CSRMSR is the ratio of corporate social responsibility expenditures to total profit after tax and ETR is effective tax rate, BSIZE is bank size, LEV is leverage, FCSRDETR, CSRMSRETR and CSREETR are moderating variables.

4.1 Results and Discussion

The study used seven variables which were presented in the descriptive statistics in table 1. The result shows that the minimum and maximum values of stock price volatility are 0.049 and 8.322. The mean value is 1.4215 and the standard deviation value is 1.2963. The highest and minimum values of FCSR are 0.103 and 0.512. Also the mean value is 0.2397 where the standard deviation is 0.0793. The highest, minimum, mean and standard deviation values for CSRMSR are 0.0366, 0.0017, 0.0161 and 0.0076 respectively. The mean value of CSRE is 7.658 where the maximum value is 9.7079. The minimum and standard deviation values are 4.0846 and 1.3679 respectively. The mean value of tax rate is 0.1466. The maximum and minimum values of tax are 0.3872 and 0.0106, where the standard deviation is 0.0567. The mean, minimum and maximum values of bank size are 9.1948, 8.1119 and 10.0981 respectively with standard deviation value of 0.4937. The minimum, maximum and mean values of Leverage are 1.6462, 16.3514 and 7.282. Furthermore, the values for the variance inflation factor used to check for multicollinearity between continuous variables has highest and minimum values of 1.56 and 1.09 which indicates the absence of multicollinearity among the study variables (Hair et al., 2010).

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std Dev.	Min	Max	VIF
SPVOL	130	1.4125	1.2983	0.0490	8.3220	
FCSR	130	0.2397	0.0793	0.1030	0.5122	1.13
CSRMSR	130	0.0161	0.0076	0.0017	0.0366	1.40
CSRE	130	7.9658	1.3967	4.0846	9.7079	1.56
ETR	130	0.1466	0.0567	0.0106	0.3872	1.54
BSIZE	130	9.1948	0.4937	8.1119	10.0981	1.37
LEV	130	7.2820	2.6320	1.6462	16.3514	1.09

Table 2 depicts the pairwise Pearson correlation coefficients of the variables of the study. The correlation coefficient values for the CSR variables indicate a positive significant correlation between CSR and stock price volatility. Moreover, the correlation between stock price volatility, the moderator and bank size shows a positive significant correlation. Conversely, Leverage has insignificant correlation with SPV. Furthermore, the correlation coefficient between the study variables is below the benchmark level of 0.90 which indicates no problem of multicollinearity.

Table 2: Correlation Matrix

SPV	SPVOL	FCSR	CSRMSR	CSRE	ETR	BSIZE	LEV
SPV	1.0000						
FCSR	0.2131**	1.0000					
CSRMSR	0.1774*	-0.0427	1.0000				
CSRE	0.4158**	0.1561*	0.4809**	1.0000			
ETR	0.7148**	-0.1207	0.3050**	0.4070**	1.0000		
BSIZE	0.2725**	-0.2592**	0.0811	0.0559	0.4327**	1.0000	
LEV	-0.1230	-0.0126	-0.1808**	-0.0079	0.0119	-0.1703	1.0000

Table 3 presents the regression results of from models 1 and 2. Model I presents the results of the direct relationship between the CSR variables and tax on stock price volatility. The model analysis results show that the coefficient of FCSR and stock price volatility is positive and statistically significant. Accordingly, increase in frequency of FCSR leads to increase in stock price volatility. The reason for this association may be consequent to poor commitment of Nigeria banks on CSR practices which was reflected on very low FCSR index. Accordingly, the positive significant relationship between FCSR and stock price volatility is due to poor quality and frequency of CSR disclosure. The finding is consistent with the result of Trong et al. (2022) which evidenced that the level of information transparency and quality disclosure determines the level and direction of its effect on firm value and stock price volatility. Moreover, the finding of the study is in consensus with the results of prior studies which evidenced that low quality of FCSR has positive and significant association with stock price volatility (Dai et al., 2019; Liu et al., 2024). Therefore, low quality of FCSR has a positive and significant impact on stock price volatility.

Table 3: Regression Analysis Result

ESTIMATOR VAR	MODEL 1			MODEL 2		
	VOL			VOL		
	Coeff	t	p-value	Coeff	t	p-value
FCSRDT	3.75	2.66	0.009	2.27	2.02	0.045
CSRMSR	-2.28	-1.70	0.091	-2.20	-2.38	0.019
CSRE	10.89	1.47	0.144	-12.25	-2.29	0.024
ETR	16.20	5.79	0.000	11.61	8.01	0.000
BSIZE	0.190	1.22	0.225	0.26	1.98	0.050
LEV	-.0590	-3.29	0.001	-.077	-4.94	0.000
FCSRDT				34.49	2.88	0.005
CSRMSRT				35.42	5.71	0.000
CSRT				28.58	1.98	0.050
Observation	130			130		
R-squared	0.6334			0.7758		
Prob F	0.0000			0.0000		
Estimator	OLS (Robust)			OLS (Robust)		

p-value 0.000 =Sig at1%, p-value 0.05 =Sig at 5%,

Conversely, there is a negative insignificant association between CSRMSR and stock price volatility. The reason for the result may be low ratio of CSRE to net profit. This result is consistent with the findings of Okafor et al. (2021), which shows that companies which spend more on CSR activities experiences a corresponding increase in revenue and profitability which enhance stability of stock prices. Accordingly, high CSRMSR reduce stock price volatility. This is in line with the findings of Fiordelis et al. (2022), which found that a higher level of environmental engagements (higher CSRMSR) corresponds to a high ethical standard of bank managers and high level financial transparency which enhance stock price growth and stability.

The result also indicates that CSRE has positive insignificant association with stock price volatility. The reason for the result may be because low prioritising of CSRE which does not significantly deplete bank disposable income. When a bank CSRE is not excessive, it will not significantly impact stock price volatility. This is in line with the finding of Nguyen and Nguyen (2015) which emphasised that over-prioritising CSRE could result to firm financial risk.

Moreover, the correlation between tax and stock price volatility is a positive and statistically significant which suggests that increase in effective tax rate leads to increase in stock price volatility. This is because tax is a liability for banks that reduce their disposable profits, dividend capacity and competitive capabilities which leads to stock price volatility.

Furthermore, the results in model 2 shows that effective tax rate has positive significant moderating effect on the relationships between CSR variables (FCSRDT, CSRMSR & CSRE) and stock price volatility with BSIZE and LEV as control variables. The reason for the positive significant moderating effects of ETR on the CSR and stock price volatility nexus may be because in Nigeria, besides corporate taxes, banks pay other levies which further

erode their disposable profits thereby expose banks to financial risks and increases in stock price volatility. This result is in line with the findings of Amir and Chaibi (2023), which evidence that effective tax rate moderates the relationship between CSR and stock price volatility. Moreover, increase in taxes and CSR activities inhibit bank's capacity to pay high dividend and discharge other obligations due to shareholders and stakeholders which may culminate to divestment by shareholders and stock price volatility.

In addition, the regression results indicate that the control variables bank size has positive significant impact on stock price volatility at 5% level conversely leverage has negative significant association at 1% level.

Consequently, it is necessary for banks to engage in legitimate CSR engagements that are considered as allowable deductions for tax purposes in order to reduce the effective tax rates and enhance their profits. Besides, banks should refrain from green washing and enhance reduction in information asymmetries through frequent and quality disclosures of their comprehensive CSR engagements in order to gain shareholders and stakeholders approval which should culminate to reduction in stock price volatility.

5. Conclusion

This study investigated the impact of CSR on stock price volatility of listed commercial banks in Nigeria. This study further examines the moderating role of a tax rate on the relationship between CSR and stock price volatility. Our findings are consistent with stakeholder, legitimacy and signalling theory, which amplifies the need for banks' to concentrate more on optimising management of bank resources and engage sensibly in CSR activities which will not culminate to financial inadequacies and reduced competitive capacities. Besides, banks should provide quality and frequent disclosures on their CSR activities to advertise their ethical corporate citizenship status thereby achieving stakeholders' approval and legitimizing their business.

Therefore, the regulators of Nigeria banking sector should revise and monitor bank's CSR activities and amend CSR disclosure policies to lessen unnecessary costs. Besides, banks should focus on improving their CSR activities that positively impact societal wellbeing rather greenwashing.

Moreover, shareholders prefer banks that pay taxes at appropriate tax rates, however high effective tax rates deplete bank's capacity for competition. Besides, appropriate tax filing and timely payment of appropriate tax are considered as major component of sincere CSR. However, higher effective tax rate results to increases in stock price volatility of banks. Consequently, the tax authorities should revise the tax rate based on CSR practices through introduction of tax rebates that benefits banks that are performing legitimate CSR practices which enhances level and quality of CSR commitment and disclosures.

Besides, our findings may also benefit regulators in developing policies on CSR disclosure, as it is currently crucial for banks to move into the sustainability direction through provision of high quality and consistent CSR disclosures that inhibits information asymmetries in order to achieve stable stock prices and long term sustainability.

Also, our findings will be beneficial for portfolio managers and investors for making decisions in respect of selection of banks for investments based on their level of CSR performance in order to avoid investing in banks that misuse investors' and shareholders' wealth that may expose their investments to higher risk levels.

Future research may consider the moderating role of tax avoidance or dividend policy on the relationship between CSR and stock volatility in developing economies. Besides, future studies may investigate the moderating role of corporate governance mechanisms on CSR bank stock price crash risk nexus in context of emerging economies will contribute to the literature of CSR and bank crash risks.

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