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**CORPORATE SOCIAL RESPONSIBILITY AND FIRM PERFORMANCE:  
EVIDENCE FROM BANKS IN GHANA**

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**ABSTRACT**

CSR has developed as a crucial aspect of organizational strategy worldwide, as businesses increasingly incorporate social and environmental factors into their decision-making procedures. In developing economies like Ghana, the banking sector plays an essential role in economic development, making it important to examine how CSR initiatives affect firm performance. This research examines the connection between CSR activities and firm performance of Ghanaian banks. Adopting an explanatory alongside quantitative research approach, the study utilizes secondary data from 7 banks spanning 2007 to 2022. The data were analyzed using STATA and Microsoft Excel, with Panel Corrected Standard Errors (PCSE). Our results indicate that CSR exhibits a positive but statistically insignificant association with profitability. Additionally, results demonstrate a negative but insignificant relationship between CSR and firm value. However, financial leverage does not significantly enhance the relationship between CSR and profitability. Given the study's outcome, managers should shift from viewing CSR as a reputational or compliance-driven activity to embedding it within revenue-generating and risk-reducing functions. For instance, CSR initiatives should be integrated into financial inclusion programs, SME financing, green lending, and digital banking outreach, areas that simultaneously create social impact and strengthen long-term asset quality or customer loyalty. Furthermore, regulatory attention should focus on CSR quality and its linkage to prudential outcomes. Regulators may consider incorporating socially aligned lending (e.g., financing environmentally sustainable projects or underserved sectors) into supervisory dialogue, rather than simply encouraging disclosure-based CSR reporting.

**KEYWORDS:** - Firm Performance; Financial Leverage; Profitability; Disclosure- Based.

**1.0 INTRODUCTION**

Corporate Social Responsibility (CSR) has evolved from a philanthropic activity into a strategic component of modern business practice (Liu et al., 2026). Increasing stakeholder awareness, globalization, and regulatory pressures have compelled firms to integrate social, environmental, and governance considerations into their operations (Jarraya & Boujelbène, 2026; Yahaya, 2026). As a result, frameworks such as the Sustainable Development Goals (SDGs), Global

Reporting Initiative (GRI), and Environmental, Social, and Governance (ESG) standards have institutionalized CSR as a tool for risk management, reputation enhancement, and long-term value creation (Issa & Zaid, 2026; Phan et al., 2025).

The CSR–firm performance relationship is largely explained by Stakeholder Theory and Signalling Theory (Gerged et al., 2026). Stakeholder Theory suggests that firms that effectively manage stakeholder relationships achieve improved performance through trust, loyalty, and reputational gains (Aman-Ullah et al., 2026; Wang et al., 2025). Signalling Theory posits that CSR disclosures signal firm quality and ethical standards, reducing information asymmetry and enhancing investor confidence (Jarboui & Bouzoutina, 2025). These signals can indicate financial strength and long-term orientation, thereby improving firm value (Baatwah, Bajaher & Asiri, 2026; dos Reis Cardillo & Basso, 2025).

Empirical evidence on this relationship remains mixed. The social impact hypothesis argues that CSR enhances financial performance through improved stakeholder relations and reduced risk (Long et al., 2025; Kim & Keane, 2024), with several studies reporting positive outcomes (Baatwah, Bajaher & Asiri, 2026; Wu, Huang & Ye, 2026; Phan et al., 2025; Wang et al., 2025). In contrast, the shareholder expense hypothesis suggests that CSR imposes costs that may reduce profitability, particularly when misaligned with firm strategy (Hamed et al., 2025; Nandi, Agarwala & Sahu, 2025), with some evidence of negative short-term effects (Yahaya, 2026; Issa & Zaid, 2026).

The relationship is context-dependent. In developing economies, weaker institutions and resource constraints may limit the effectiveness of CSR or shift its focus toward legitimacy (Yahaya, 2026; Oduro et al., 2025). In Ghana, the banking sector plays a key role in economic development and has undergone reforms that have increased attention to CSR (Oduro et al., 2025; Hamed et al., 2025; Jarboui & Bouzoutina, 2025; Goffi, Masiero & Pencarelli, 2022). However, empirical evidence remains limited. This study therefore examines the CSR - performance relationship in Ghanaian banks, contributing to theory and evidence in an emerging market context.

## **2.0 LITERATURE REVIEW**

Corporate Social Responsibility (CSR) has evolved into a fundamental aspect of modern business practice, reflecting the expectation that firms should go beyond profit maximization to address broader societal and environmental concerns (Akhter & Hassan, 2024). Early contributions by Bowen (1953) conceptualized CSR as the obligations businesses owe to society, while Carroll's CSR Pyramid (1991) categorized these responsibilities into economic, legal, ethical, and philanthropic dimensions. Building on this, Freeman (1984) emphasized the

stakeholder perspective, arguing that firms must create value for all stakeholders, not just shareholders (Khuong & Anh, 2023).

In contemporary practice, CSR encompasses a wide range of activities, including environmental sustainability, ethical governance, fair labor practices, and community engagement (Dauda, 2024; Lee et al, 2024). It aligns with the Triple Bottom Line framework, which highlights the need for firms to balance economic, social, and environmental performance (Musyafa&Kholilah, 2023). Although CSR initiatives are often voluntary, they increasingly reflect strategic decision-making, particularly in environments where stakeholders demand accountability and transparency. In developing economies such as Ghana, CSR assumes additional importance due to socio-economic challenges and institutional gaps. However, its implementation is sometimes constrained by limited resources and varying levels of managerial commitment (Khuong & Anh, 2023; Agyapong, Annor & Ohemeng, 2024).

The significance of CSR lies in its ability to create value for both firms and society. Organizations that actively engage in CSR tend to build stronger relationships with stakeholders, enhancing trust, loyalty, and brand reputation (Maome & Zondo, 2024; Ayamga et al., 2024). This is particularly relevant in markets where consumers are increasingly conscious of ethical and social issues. CSR also plays an important role internally by improving employee morale, satisfaction, and retention through a sense of purpose among workers (Asiedu et al., 2020). From a financial perspective, CSR contributes to risk management by reducing the likelihood of legal penalties, reputational damage, and operational disruptions (Akhand et al., 2024; Akpa & Odo, 2024). Additionally, it enhances a firm's attractiveness to investors who prioritize sustainability and ethical practices. In the long term, CSR can create new opportunities for innovation and market expansion, thereby strengthening competitive advantage and ensuring business sustainability (Maome & Zondo, 2024).

Financial performance, particularly profitability, remains a central measure of a firm's success and sustainability (Akpa & Odo, 2024). It reflects a company's ability to generate returns from its resources, meet its financial obligations, and sustain growth over time (Chen, Lin & Lin, 2024; Van Nguyen, Bui & Le, 2022). Common indicators such as Return on Assets (ROA) and Return on Equity (ROE) are widely used to assess financial performance, especially in financial institutions (Babajee et al., 2022). Financial performance is influenced by both internal factors, including management efficiency, governance, and innovation, and external factors such as economic conditions, industry dynamics, and regulatory frameworks (Akpa & Odo, 2024; Porfrio, Felício & Carrilho, 2024). It serves as a critical benchmark for decision-making by managers, investors, and creditors, as it determines a firm's viability, competitiveness, and long-term prospects (Maome & Zondo, 2024).

Closely related to financial performance is firm value, which represents the overall worth of a company as perceived by stakeholders (Musah et al., 2022). Firm value encompasses both tangible and intangible assets, including physical resources, intellectual property, brand reputation, and future earnings potential (Amoako et al., 2024). Measures such as enterprise value, book value, and intrinsic value provide different perspectives on a firm's worth, reflecting both current financial position and future growth expectations (Ledi & Ameza-Xemalordzo, 2023). Firm value is influenced by several factors, including profitability, governance quality, capital structure, and macroeconomic conditions (Chaturvedi et al., 2021; Cheng, Kim & Ryu, 2024). It plays a crucial role in investment decisions, corporate strategy, and shareholder wealth maximization, as higher firm value is often associated with increased investor confidence and market performance (Abugre & Anlesinya, 2020).

Another important concept in this study is financial leverage, which refers to the use of debt financing to support business operations and investments (Maneesha & Sowmya, 2024). Leverage can enhance returns when investments generate higher yields than the cost of borrowing; however, it also increases financial risk when returns are insufficient to meet debt obligations (Daruwala, 2023). The implications of leverage have been widely examined in capital structure theories. Modigliani and Miller (1958, 1967) highlight the potential benefits of debt through tax advantages, while Myers (1977) emphasizes the risks associated with high leverage, particularly the problem of underinvestment (Demiraj, Demiraj & Dsouza, 2023). High levels of debt can constrain financial flexibility and influence stakeholder perceptions, making leverage a critical factor in evaluating firm performance and value (Kalash, 2023).

Stakeholder Theory, introduced by R. Edward Freeman (1984), posits that firms enhance performance by addressing the interests of key stakeholders such as customers, employees, regulators, and communities (Mu et al., 2024; Bansal et al., 2023). In the banking sector, CSR initiatives help build trust, strengthen reputation, and support long-term performance by improving relationships with stakeholders (Corazza, 2024; Stoelhorst & Vishwanathan, 2024; Freeman & Velamuri, 2023). Complementing this, Signaling Theory (Morris, 1987) posits that CSR serves as a signal of firm quality and ethical standards in the presence of information asymmetry (Yasar et al., 2020; Phan et al., 2025). However, the credibility of this signal depends on financial conditions, as high leverage may signal risk and weaken the perceived effectiveness of CSR, whereas lower leverage enhances its effectiveness (Sarfo et al, 2025; Lailiyah et al., 2024; Mahmood et al., 2023; Diroh&Mochlasin, 2023).

## **2.1 Empirical Review**

Empirical studies on the relationship between CSR and firm profitability generally suggest a positive association, although the strength of this relationship varies across contexts. Evidence

from emerging markets strongly supports the social impact hypothesis, which argues that CSR enhances financial performance by improving stakeholder relationships and reducing risks. For example, Aftab et al. (2024) find a significant positive relationship between CSR and financial performance among manufacturing firms in Pakistan. Similarly, Akpa & Odo (2024) report that CSR improves profitability indicators such as net profit margin and Return on Equity (ROE) in Nigerian banks. In South Africa, Maome & Zondo (2024) demonstrate that CSR enhances profitability by reducing compliance costs and operational risks, while evidence from Bangladesh indicates that CSR significantly contributes to financial performance across multiple indicators (Akhand et al., 2024).

Further support for this positive relationship is found in studies conducted in different sectors and regions. Saeed, Mudliar & Kumari (2023) show that CSR positively influences profitability and stock returns in Ghanaian financial institutions, highlighting its strategic importance. Babajee et al. (2022) find that CSR improves financial performance in the hospitality sector, while Van Nguyen, Bui & Le (2022) report similar findings for banks in Vietnam. In India, Chaturvedi et al. (2021) also establish a positive relationship between CSR and financial performance. These studies collectively suggest that CSR contributes to profitability by enhancing operational efficiency, strengthening stakeholder trust, and reducing business risks.

However, the relationship between CSR and profitability is not entirely consistent. Some studies highlight variations depending on the specific performance measures used. For instance, Ayamga et al. (2024) find that while CSR improves overall financial performance in Ghanaian firms, it does not significantly affect ROE. Similarly, Van Nguyen, Bui & Le (2022) show that certain CSR dimensions, such as environmental and employee responsibility, positively influence performance, whereas community-related initiatives may not yield significant financial benefits. These findings suggest that the impact of CSR on profitability depends on how CSR is implemented and measured, as well as the specific context in which firms operate.

Empirical evidence indicates that CSR generally enhances profitability, although its effects are influenced by contextual and firm-specific factors. CSR appears to create value through mechanisms such as improved reputation, stakeholder trust, and operational efficiency, even if the financial benefits are not always immediate or uniformly distributed across performance indicators. Based on this discussion, the study proposes the following hypothesis:

*H<sub>1</sub>: There is a significant positive relationship between CSR and firm profitability.*

The relationship between CSR and firm value has also attracted considerable attention in the literature, with mixed findings. Several studies support a positive association, consistent with

stakeholder theory. For example, Chen, Lin & Lin (2024) find that CSR activities significantly enhance firm value in Taiwanese firms. Similarly, Cheng, Kim & Ryu (2024) report that ESG performance positively affects firm value in China, particularly in periods of increased stakeholder sensitivity to corporate responsibility. In the Ghanaian context, Amoako et al. (2024) demonstrate that CSR enhances brand value by improving customer knowledge and loyalty, while Abugre & Anlesinya (2020) show that CSR contributes to business value through the mediating role of corporate reputation.

Despite these positive findings, other studies present contrasting evidence. Musah et al. (2022) find no significant relationship between CSR disclosure and firm value among listed firms in Ghana, suggesting that disclosure alone may not be sufficient to create value. Similarly, Butt, Shahzad & Ahmad (2020) report that CSR negatively affects firm value in Egypt, even though it improves profitability. These findings highlight the possibility that CSR investments may be perceived as cost-incurring activities that divert resources from value-maximizing projects, particularly in environments where stakeholders are more concerned with short-term financial performance.

The inconsistencies in the literature can be attributed to several factors. Differences in how CSR is measured, such as expenditure versus disclosure, can lead to varying results. Additionally, institutional and contextual factors, including regulatory frameworks and stakeholder expectations, influence how CSR is perceived and valued. Industry characteristics also play an important role; in sectors where trust and reputation are critical, such as banking, CSR may have a stronger impact on firm value due to its signaling effect.

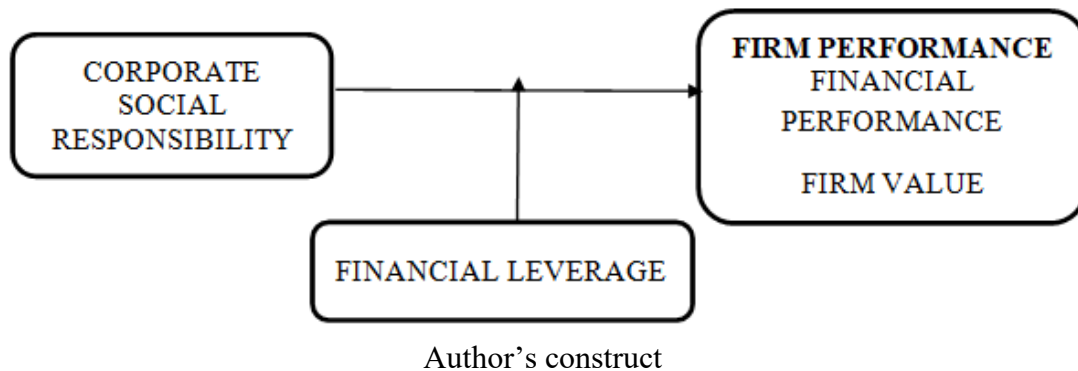
In general, the evidence suggests that CSR can enhance firm value, but its effectiveness depends on contextual conditions and firm-specific characteristics. Based on this discussion, the study proposes the following hypothesis:

*H<sub>2</sub>: There is a significant positive relationship between CSR and firm value.*

The literature indicates that CSR can positively influence both profitability and firm value, although the relationship is not universally consistent. These inconsistencies suggest the presence of moderating factors that shape the effectiveness of CSR initiatives. One such factor is financial leverage, which may influence how stakeholders interpret CSR investments. In highly leveraged firms, CSR spending may be viewed as a misuse of limited resources, whereas in less leveraged firms, it may be perceived as a credible signal of strength and long-term commitment. This study, therefore, extends the literature by examining the moderating role of financial leverage in the CSR-performance relationship, particularly within the banking sector.

## 2.2 Conceptual Framework

The conceptual framework helps the reader to understand the relationship between the study variables through a graphic representation. In this study, the independent variable is Corporate Social Responsibility, the dependent variables are financial performance and firm value, and the moderating variable is financial leverage.



## 3.0 RESEARCH METHODOLOGY

This study uses a quantitative research approach grounded in a positivist philosophy, focusing on objective, measurable data (Duah et al., 2025; Creswell & Creswell, 2018). Secondary financial data from Ghanaian banks, including ROA and ROE, are used to test hypotheses on the relationship between Corporate Social Responsibility (CSR) and financial performance, ensuring objectivity and generalizable findings (Bryman, 2016).

A longitudinal panel design is employed, combining data from multiple banks over the period 2007–2022. This approach captures changes in CSR and financial performance over time while controlling for firm-specific factors like governance and management practices. It also allows for analysis of the moderating role of financial leverage using robust statistical methods, providing reliable insights into CSR's impact on bank performance.

### 3.1 Population and Sample

The study population comprises all commercial banks operating in Ghana, totaling 23 institutions following recent sector reforms. Analyzing the entire population is impractical, so a simple random sampling method is used to select 7 listed banks for the study. These include a mix of local and foreign-owned banks with accessible financial data for the study period. This sample enables the research to examine CSR, financial leverage, and performance while ensuring reliable, representative insights from Ghana's banking sector.

$$n = \frac{N \cdot Z^2 \cdot p \cdot (1-p)}{e^2 \cdot (N-1) + Z^2 \cdot p \cdot (1-p)}$$

Where:

N: Population size = 23

Z: Z-value = 0.93

p: Proportion of maximum variability = 0.5

e: Margin of error = 0.15

$$n = \frac{23 \cdot 0.93^2 \cdot 0.5 \cdot (1-0.5)}{0.15^2 \cdot (23-1) + 0.93^2 \cdot 0.5 \cdot (1-0.5)} = 7$$

### 3.2 Data Analysis

The analysis begins with descriptive statistics to summarize the distribution, central tendency, and variability of CSR, profitability, firm value, leverage, and control variables. Correlation analysis is used to examine pairwise relationships and assess multicollinearity, following Duah et al. (2025). Given the panel structure, Pesaran’s (2004) Cross-Sectional Dependence test is applied, revealing cross-sectional dependence among banks. To address this, Panel Corrected Standard Errors (PCSE) are used in regression estimation to account for contemporaneous correlation and heteroskedasticity. Regression analysis tests the direct effects of CSR on profitability and firm value, including year dummies to control for macroeconomic and regulatory shocks. The moderating effect of leverage is assessed using an interaction term with CSR, and marginal effects are computed at low, average, and high leverage levels. All analyses are conducted in STATA, ensuring robust, reliable results aligned with the panel data structure.

### 3.3 Model Specification

The model exhibits the mathematical representation of the study. The statistical models take the form;

$$PFT_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 SIZE_{it} + \beta_3 AGE_{it} + \beta_4 NPL_{it} + \beta_5 CAR_{it} + \beta_6 LIQ_{it} + \gamma_t + \mu_{it} \text{ ---}$$

----- (1)

$$FV_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 SIZE_{it} + \beta_3 AGE_{it} + \beta_4 NPL_{it} + \beta_5 CAR_{it} + \beta_6 LIQ_{it} + \gamma_t + \mu_{it} \text{ ----}$$

----- (2)

$$PFT_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 LEV_{it} + \beta_3 CSR * LEV_{it} + \beta_4 AGE_{it} + \beta_5 NPL_{it} + \beta_6 CAR_{it} + \beta_7 LIQ_{it} + \gamma_t + \mu_{it} \text{ -----}$$

----- (3)

Where;

PFT – Profitability

*FV* – Firm Value

$\beta_0$  – Intercept of the regression line

$\beta_1$  to  $\beta_6$  – Coefficient of the respective variables

*CSR* – Corporate Social Responsibility

*LEV* – Firm Leverage

*SIZE* – Bank Size

*AGE* – Bank Age

*NPL* – Non- Performing Loan

*CAR* – Capital Adequacy Ratio

*LIQ* – Liquidity Ratio

$\gamma_t$  – Yearfixed effects

$\mu$  – Error

*i* – Listed Banks

*t* – Time, 2007 – 2022

### 3.4 Endogeneity

Endogeneity occurs when an explanatory variable is correlated with the error term in a regression, which can distort the results. In the context of CSR and firm performance, this might occur due to omitted factors, reverse causality, or imperfect measurement. To address this, the study includes key controls like firm size, age, non-performing loans, capital adequacy, and liquidity. Tracking banks over multiple years and using year fixed effects helps account for broader economic changes, while relying on consistent annual report data reduces measurement errors. Panel Corrected Standard Errors (PCSE) further improves the reliability of the results. As such, the findings should be viewed as meaningful associations rather than definitive proof of causality.

### 3.5 Variable Description and Measurement

**Table 3.1 Variable Description**

Variables	Measurement	Reference
Dependent variables		
Bank	1. Profitability, measured by the return on assets	Ozili, and Ndah (2024)
Performance	2. Firm Value, measured by Equity to assets ratio	Huang (2024)
Independent Variable		

CSR	Dummy variable, with a value of 1 for banks that practice CSR and a value of 0 for banks that are not socially responsible	Kang and Ahn (2024)
Moderating Variable		
Leverage	Ratio of total debt to total assets of the firms	Lee et al. (2024)
Control Variables		
Bank Size	The log of the total asset	Agyapong et al. (2024)
Bank Age	Duration of time (years) a bank has been operating	Firmansyah, and Kartiko (2024)
Non-Performing Loans	Measured by the non-performing loan ratio, i.e., non-performing loans divided by total loans.	Abdesslem et al. (2022)
Capital Adequacy	Capital adequacy ratio, i.e., regulatory capital divided by risk-weighted assets	Abdesslem et al. (2022)
Liquidity	Liquidity ratio. Liquid assets/ Total assets	Abdesslem et al. (2022)

Source: Author Compilation (2024)

#### 4.0 RESULTS

This section presents the study's empirical findings based on secondary data from the selected Banks in Ghana.

#### 4.1 Descriptive Analysis

**Table 4.1 Descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
TOBINSQ	112	.8365902	.3304868	.084502	1.6326
ROA	112	.0276305	.0259075	-.1197336	.0696098
CSR	112	.9375	.2431494	0	1
LEV	112	.7934675	.1882819	.146896	.9511368
SIZE	112	21.63705	1.169836	18.86696	23.97782
AGE	112	36.23214	14.83056	17	69
NPL	112	.16815	.1029475	.02285	.473688
CAR	112	.2004884	.0608292	.082	.474
LIQ	112	.540362	.1283515	.300	.89

Tobin's Q has a mean value of 0.837 and a standard deviation of 0.330. The minimum value is 0.085 while the maximum value is 1.633. A mean below 1 suggests that, on average, the market value of the sampled banks is slightly below their book value of assets. However, all values fall within an economically plausible range for commercial banks. The absence of extreme values indicates that the firm value variable is not subject to abnormal distortions. ROA has a mean of 0.0276 (2.76%), indicating that the sampled banks generate an average return of 2.76% on total assets. The minimum value of -11.97% reflects loss-making periods, while the maximum value of 6.96% shows strong profitability in certain years. The standard deviation of 0.0259 suggests moderate variation in profitability across banks and years.

CSR has a mean of 0.9375, with values ranging from 0 to 1. This indicates that approximately 93.75% of the observations report engagement in corporate social responsibility activities. The standard deviation of 0.243 shows limited variation, suggesting that CSR engagement is common among the sampled banks. Leverage has a mean value of 0.793, indicating that liabilities finance approximately 79.3% of total assets on average. The minimum value is 0.147, and the maximum is 0.951. These values are consistent with the highly leveraged nature of commercial banks. Importantly, no leverage value exceeds one, confirming that total liabilities do not exceed total assets in the sample. Firm size, measured as the natural logarithm of total assets, has a mean of 21.637 and ranges from 18.867 to 23.978. The relatively small standard deviation of 1.170 indicates that the banks in the sample are comparable in scale, although some variation exists between smaller and larger institutions.

The average age of the sampled banks is 36.23 years. The youngest bank is 17 years old, while the oldest is 69. This suggests that the sample consists mainly of well-established institutions with substantial operating history. The mean NPL ratio is 0.168 (16.8%). This indicates that, on average, 16.8% of total loans are non-performing. The minimum value of 2.3% reflects strong credit quality in certain periods, while the maximum value of 47.4% reflects periods of financial stress. The standard deviation of 0.103 shows moderate dispersion in credit risk across observations. CAR has a mean of 0.200 (20.0%), suggesting that the sampled banks maintain capital levels above regulatory minimum requirements. The minimum value is 8.2%, while the maximum is 47.4%. These values indicate variation in capital buffers across banks, but all remain within economically plausible bounds. The liquidity ratio has a mean of 0.540, indicating that liquid assets represent approximately 54.0% of total assets on average. The minimum value is 0.30, and the maximum is 0.89. These figures suggest that the banks maintain substantial liquidity buffers, consistent with prudential regulation in the banking sector.

#### 4.2 Correlation Analysis

**Table 4.2 Pairwise Correlation**

	TOBINSQ	ROA	CSR	LEV	SIZE	AGE	NPL	CAR	LIQ
TOBINSQ	1.0000								
ROA	-0.0204	1.0000							
CSR	-0.1361	0.1363	1.0000						
LEV	0.2005	0.0752	0.0180	1.0000					
SIZE	-0.0395	0.0522	0.0887	0.0464	1.0000				
AGE	0.1610	0.1031	0.0290	0.1998	0.4942	1.0000			
NPL	0.0557	-0.0192	-0.0843	-0.0309	-0.2465	-0.1721	1.0000		
CAR	0.0348	-0.1373	0.1083	0.0920	0.0304	0.1294	-0.1309	1.0000	
LIQ	0.2379	0.1230	-0.0505	0.2327	-0.0223	0.2346	-0.0053	0.2829	1.0000

Tobin's Q shows a weak negative relationship with ROA (-0.0204). This indicates almost no linear association between market valuation and profitability. Tobin's Q has a weak negative relationship with CSR (-0.1361). This suggests that CSR engagement is not strongly associated with firm value at the descriptive level. A weak positive relationship exists between Tobin's Q and leverage ( $r = 0.2005$ ). This indicates that higher leverage is mildly associated with higher firm value, although the relationship is small. Tobin's Q also shows a weak positive relationship with age (0.1610) and liquidity (0.2379). These correlations suggest that older and more liquid banks may experience slightly higher market valuation, but the relationships remain weak.

ROA has a weak positive relationship with CSR (0.1363), suggesting that banks engaged in CSR activities tend to have slightly higher profitability. ROA shows a weak positive relationship with liquidity (0.1230) and age (0.1031). These relationships are small and do not indicate a strong linear association. ROA has a weak negative relationship with CAR (-0.1373), suggesting that higher capital ratios are mildly associated with lower profitability. This may reflect the trade-off between capital buffers and return generation. All correlations involving ROA are below 0.20 in absolute value. This suggests low pairwise linear association.

### 4.3 Pesaran Cross-Sectional Dependence Test

Pesaran's test of cross-sectional independence =5.881	Pr =0.0000
Average absolute value of the off-diagonal elements	= 0.370

To examine whether the residuals across banks are independent, Pesaran’s (2004) cross-sectional dependence (CD) test was conducted. The test produced a CD statistic of 5.881 with a p-value of 0.0000. Since the p-value is less than 0.05, the null hypothesis of cross-sectional independence is rejected. This indicates the presence of cross-sectional dependence among the sampled banks. In practical terms, this suggests that the banks are influenced by common elements such as macroeconomic conditions, regulatory changes, and central bank policies within the same economic environment. The presence of cross-sectional dependence implies that conventional panel estimators with standard errors that assume independence may produce biased inferences. Therefore, an estimation technique that accounts for cross-sectional correlation is required in subsequent analysis. The Panel-Corrected Standard Errors (PCSE) estimator is used to assess the objectives.

**Table 4.4 CSR and Profitability**

ROA	Coef.	Panel-corrected Std. Err.	z	P>z	[95% Conf. Interval]
CSR	.0041925	.0069136	0.61	0.544	-.0093578 .0177429
SIZE	.0130213	.0028702	4.54	0.000	.0073959 .0186468
AGE	.0000728	.0000985	0.74	0.460	-.0001203 .0002659
NPL	.0038773	.0147113	0.26	0.792	-.0249562 .0327109
CAR	-.0078682	.0289919	-0.27	0.786	-.0646913 .048955
LIQ	.0098316	.0123738	0.79	0.427	-.0144206 .0340838
Year					
2008	-.0014439	.0014176	-1.02	0.308	-.0042224 .0013346

2009	-.0058469	.0027685	-2.11	0.035	-.0112731	-.0004207
2010	-.0071015	.0037427	-1.90	0.058	-.014437	.0002341
2011	-.0116965	.0052101	-2.24	0.025	-.0219081	-.0014849
2012	-.0033049	.0047304	-0.70	0.485	-.0125762	.0059665
2013	.0031385	.005547	0.57	0.572	-.0077333	.0140104
2014	-.0001989	.0060222	-0.03	0.974	-.0120023	.0116044
2015	-.0222754	.0059993	-3.71	0.000	-.0340338	-.0105171
2016	-.026853	.0069782	-3.85	0.000	-.0405299	-.013176
2017	-.0220639	.0075811	-2.91	0.004	-.0369226	-.0072052
2018	-.0331508	.008036	-4.13	0.000	-.048901	-.0174006
2019	-.0319523	.0086183	-3.71	0.000	-.0488437	-.0150608
2020	-.029866	.0091491	-3.26	0.001	-.0477979	-.0119341
2021	-.0357757	.01011	-3.54	0.000	-.0555909	-.0159605
2022	-.1043916	.0092218	-11.32	0.000	-.1224659	-.0863173
_cons	-.2442691	.0569685	-4.29	0.000	-.3559253	-.1326129
R-squared	0.6835	Prob > chi2	0.0000			

Table 4.4 presents the results of the Panel-Corrected Standard Errors (PCSE) estimation examining the relationship between Corporate Social Responsibility (CSR) and firm profitability, measured by Return on Assets (ROA). Year dummies are included to control for macroeconomic shocks and regulatory changes. The coefficient of CSR is 0.0042 and is statistically insignificant ( $p = 0.544$ ). This indicates that CSR does not have a statistically significant effect on profitability within the sampled Ghanaian banks during the study period. Although the coefficient is positive, the lack of statistical significance suggests that CSR engagement does not meaningfully influence ROA.

Among the control variables, firm size (SIZE) has a positive and statistically significant effect on profitability ( $\beta = 0.0130$ ,  $p < 0.01$ ). This implies that larger banks tend to generate higher returns on assets. Specifically, a one-unit increase in firm size (log of total assets) is associated with an increase of approximately 1.3 percentage points in ROA. Firm age (AGE) is positive but statistically insignificant ( $p = 0.460$ ), suggesting that older banks do not necessarily earn higher profits. Similarly, non-performing loans (NPL), the capital adequacy ratio (CAR), and liquidity (LIQ) are statistically insignificant, indicating that variations in these factors do not meaningfully explain profitability in this specification.

The year dummy variables show several negative and statistically significant coefficients, particularly from 2015 onward. This suggests that profitability declined in several years relative to the base year. The large negative coefficient in 2022 ( $\beta = -0.1044$ ,  $p < 0.01$ ) indicates a substantial decline in profitability during that year, likely reflecting broader economic or regulatory challenges. The model is jointly significant, as indicated by the Wald chi-square test (Prob > chi2 = 0.0000). The R-squared value of 0.6835 suggests that approximately 68.35% of the variation in ROA is explained by the model.

**Table 4.4 CSR and Firm Value**

TOBIN'S Q	Coef.	Panel-corrected Std. Err.	z	P>z	[95% Conf. Interval]	
CSR	-.197775	.1117186	-1.77	0.077	-.4167395	.0211895
SIZE	-.0462687	.0528336	-0.88	0.381	-.1498206	.0572833
AGE	.0039952	.0018373	2.17	0.030	.0003942	.0075963
NPL	-.1138467	.4544111	-0.25	0.802	-1.004476	.7767828
CAR	-.4584468	.5941634	-0.77	0.440	-1.622986	.706092
LIQ	.5606237	.3137557	1.79	0.074	-.0543262	1.175574
Year						
2008	.0154978	.0282155	0.55	0.583	-.0398035	.070799
2009	.0534048	.0602277	0.89	0.375	-.0646393	.1714489
2010	.1599654	.0921763	1.74	0.083	-.0206969	.3406277
2011	.1336038	.1363243	0.98	0.327	-.1335869	.4007946
2012	.2824299	.1108663	2.55	0.011	.0651359	.4997239
2013	.0778422	.1115942	0.70	0.485	-.1408785	.2965629
2014	.1111063	.1082166	1.03	0.305	-.1009942	.3232069
2015	-.0515227	.0940106	-0.55	0.584	-.2357801	.1327348
2016	-.1030453	.1303315	-0.79	0.429	-.3584904	.1523998
2017	-.0165272	.145569	-0.11	0.910	-.3018371	.2687827
2018	.1362081	.1444226	0.94	0.346	-.146855	.4192712
2019	.1180886	.1535313	0.77	0.442	-.1828271	.4190044
2020	.1529515	.1652102	0.93	0.355	-.1708546	.4767576
2021	.21016	.1943162	1.08	0.279	-.1706926	.5910127
2022	.138801	.1701487	0.82	0.415	-.1946843	.4722863
_cons	1.597797	1.085823	1.47	0.141	-.5303766	3.72597

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R-squared	0.1720	Prob > chi2	0.0351
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Table 4.4 presents the results of the Panel-Corrected Standard Errors (PCSE) estimation examining the relationship between Corporate Social Responsibility (CSR) and firm value, measured by Tobin's Q. Year dummies are included to control for macroeconomic and regulatory shocks. The coefficient of CSR is -0.1978 and is statistically insignificant at the 5% level ( $p = 0.077$ ). Although the coefficient is negative, the p-value indicates that CSR does not have a statistically significant effect on firm value at conventional levels. The negative sign suggests that higher CSR engagement is associated with lower firm value, but this relationship is weak and not statistically robust.

Among the control variables, firm size (SIZE) is negative but statistically insignificant ( $p = 0.381$ ), indicating that bank size does not significantly explain variations in firm value. Firm age (AGE), however, has a positive and statistically significant coefficient ( $\beta = 0.003995$ ,  $p = 0.030$ ). This suggests that older banks tend to have higher market valuation relative to their assets. Specifically, a one-year increase in age is associated with a small increase in Tobin's Q. Non-performing loans (NPL) and capital adequacy ratio (CAR) are statistically insignificant, indicating that these risk and capital measures do not significantly affect firm value within this model. Liquidity (LIQ) is positive and marginally significant ( $p = 0.074$ ), suggesting that more liquid banks may have higher market valuations, though the evidence is weak.

The year dummy variables show mixed effects. The coefficient for 2012 is positive and statistically significant ( $p = 0.011$ ), indicating higher firm value in that year relative to the base year. Other year effects are largely insignificant, suggesting that time-specific shocks do not consistently explain fluctuations in firm value. The entire model is jointly significant ( $\text{Prob} > \text{chi}2 = 0.0351$ ). However, the R-squared value of 0.1720 indicates that the model explains approximately 17.2% of the variation in Tobin's Q. This relatively low explanatory power suggests that firm value may be influenced by additional market-related factors not captured in the model.

**Table 4.5 Moderating Role of Leverage on the Association between CSR and Firm Profitability**

ROA	Coef.	Panel-corrected Std. Err.	z	P>z	[95% Conf. Interval]
CSR	-.0005613	.0217849	-0.03	0.979	-.043259 .0421363
LEV	-.0059181	.0275633	-0.21	0.830	-.0599412 .0481049
CSR*LEV	.0061893	.0294637	0.21	0.834	-.0515585 .0639372
SIZE	.0128877	.0029352	4.39	0.000	.0071348 .0186406
AGE	.0000757	.0001031	0.73	0.462	-.0001263 .0002777
NPL	.0037826	.0149218	0.25	0.800	-.0254636 .0330287
CAR	-.0088246	.0295877	-0.30	0.766	-.0668154 .0491662
Year					
2008	-.0009274	.0028246	-0.33	0.743	-.0064635 .0046087
2009	-.005335	.0035199	-1.52	0.130	-.0122339 .0015639
2010	-.0065652	.0044151	-1.49	0.137	-.0152186 .0020881
2011	-.01115	.0058678	-1.90	0.057	-.0226508 .0003508
2012	-.0026866	.0055956	-0.48	0.631	-.0136538 .0082805
2013	.0037467	.0062028	0.60	0.546	-.0084106 .0159039
2014	.0004674	.0066427	0.07	0.944	-.0125521 .0134869
2015	-.0216279	.0065849	-3.28	0.001	-.0345341 -.0087217
2016	-.0261213	.0078157	-3.34	0.001	-.0414398 -.0108028
2017	-.0211889	.0087498	-2.42	0.015	-.0383382 -.0040395
2018	-.0324373	.0086235	-3.76	0.000	-.0493391 -.0155355
2019	-.0312019	.0092375	-3.38	0.001	-.049307 -.0130968
2020	-.0290431	.0098209	-2.96	0.003	-.0482918 -.0097945
2021	-.0348909	.0108298	-3.22	0.001	-.0561169 -.0136648
2022	-.1034903	.0101489	-10.20	0.000	-.1233818 -.0835987
_cons	-.2375016	.0642433	-3.70	0.000	-.3634162 -.1115871
R-squared	0.6836	Prob > chi2	0.0000		

Table 4.5 presents the Panel-Corrected Standard Errors (PCSE) results examining whether financial leverage moderates the relationship between Corporate Social Responsibility (CSR) and firm profitability (ROA). The model includes CSR, leverage (LEV), their interaction term

(CSR × LEV), control variables, and year fixed effects. The coefficient of CSR is -0.00056 and is statistically insignificant (p = 0.979). This indicates that, holding leverage and other factors constant, CSR does not have a significant direct effect on profitability. The coefficient of leverage (LEV) is -0.00592 and is also statistically insignificant (p = 0.830). This suggests that leverage does not independently influence profitability within the sampled banks.

The interaction term (CSR × LEV) has a coefficient of 0.00619 and is statistically insignificant (p = 0.834). This result indicates that leverage does not significantly moderate the relationship between CSR and profitability. In other words, there is no statistical evidence that the effect of CSR on ROA varies with leverage. Among the control variables, firm size (SIZE) remains positive and statistically significant ( $\beta = 0.01289$ ,  $p < 0.01$ ), indicating that larger banks tend to be more profitable. Firm age (AGE), non-performing loans (NPL), and capital adequacy ratio (CAR) are statistically insignificant in this specification. Several years' dummy variables from 2015 onward are negative and statistically significant, suggesting that profitability declined in those years relative to the base year. The coefficient for 2022 is strongly negative and highly significant, indicating a substantial decline in profitability during that year.

The model is jointly significant (Prob > chi2 = 0.0000), and the R-squared value of 0.6836 indicates that approximately 68.36% of the variation in ROA is explained by the model. However, the interaction term alone does not provide a complete interpretation of moderation. Therefore, the marginal effect of CSR across different leverage levels is computed in the next section to fully assess leverage's moderating role.

**Table 4.5.1 Average Marginal Effects**

CSR	dy/dx	Delta Std. Err.	Method	z	P>z	[95% Conf. Interval]
Low (0.605)	-0.0005613	.0217849		-0.03	0.979	-.043259 .0421363
Mean (0.793)	-0.0005613	.0217849		-0.03	0.979	-.043259 .0421363
High (0.982)	-0.0005613	.0217849		-0.03	0.979	-.043259 .0421363

To fully interpret the moderating role of leverage, the marginal effect of CSR on profitability was computed at low (0.605), average (0.793), and high (0.982) leverage levels. These values correspond to the mean minus one standard deviation, the mean, and the mean plus one standard deviation of leverage, respectively. The results show that the marginal effect of CSR on ROA is -0.00056 at all three levels of leverage. The effect is statistically insignificant in each case (p =

0.979). This indicates that the impact of CSR on profitability does not vary across different leverage levels.

Specifically, at low leverage, CSR has no statistically significant effect on ROA. The same result is observed at average and high leverage. The confidence intervals at all leverage levels include zero, further confirming the absence of a significant conditional effect. These findings suggest that leverage does not alter the relationship between CSR and profitability. The slope of CSR remains effectively constant regardless of whether a bank operates with low, average, or high leverage. Therefore, there is no empirical evidence to support the moderating role of leverage in the CSR–profitability relationship.

#### 4.5.2 Interaction Plot

Figure 4.5.2 presents the marginal effect of CSR on profitability (ROA) at low (0.605), average (0.793), and high (0.982) leverage levels, with 95% confidence intervals.

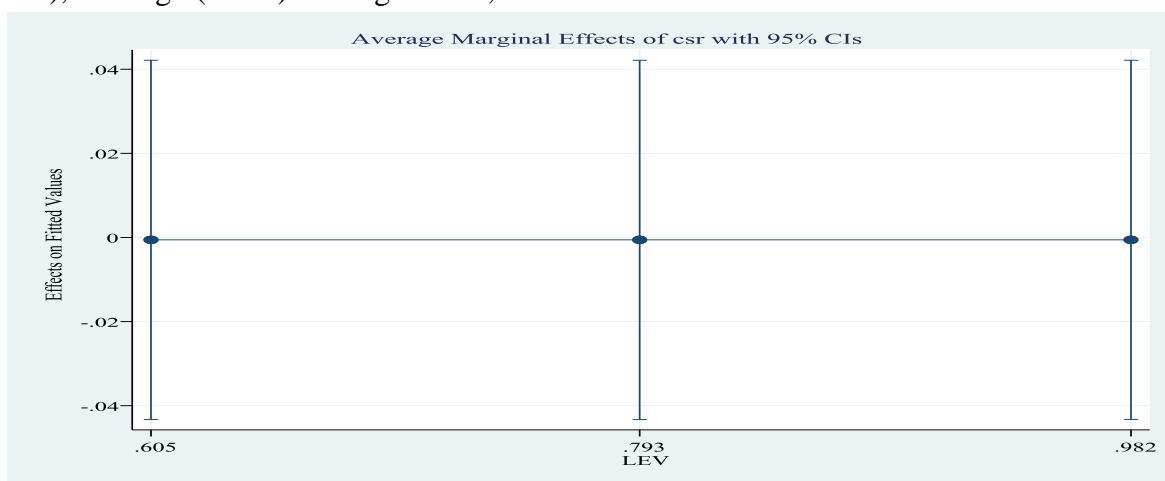


Figure 4.5.2: Interaction Plot

Figure 4.5.2 presents the marginal effect of CSR on profitability (ROA) at low (0.605), average (0.793), and high (0.982) leverage levels, with 95% confidence intervals. The plot shows that the estimated effect of CSR on ROA remains approximately zero across all leverage levels. The slope is essentially flat, indicating that changes in leverage do not alter the relationship between CSR and profitability. At low, average, and high leverage, the marginal effect of CSR is negative but extremely small and statistically insignificant. Importantly, the confidence intervals at all leverage levels include zero and largely overlap. This indicates that the effect of CSR on profitability is not statistically different from zero at any meaningful level of leverage. There is no visual evidence of divergence or change in slope as leverage increases. The interaction plot confirms the regression and marginal effects results. Financial leverage does not moderate the

relationship between CSR and firm profitability. Therefore, the hypothesis that leverage weakens or strengthens the CSR–profitability relationship is not supported by the data.

#### **4.6 Discussion of Findings**

The study examined the relationship between Corporate Social Responsibility (CSR) and profitability among listed banks in Ghana. The results indicate that CSR has a positive but statistically insignificant effect on profitability, measured by Return on Assets (ROA). This suggests that while CSR engagement may provide reputational and stakeholder-related benefits, these do not immediately translate into measurable accounting-based profits within the study period. Stakeholder Theory explains that CSR initiatives are intended to strengthen relationships with employees, customers, regulators, and communities, potentially enhancing long-term performance. However, the insignificant results indicate that the Ghanaian banking sector may experience delayed or subtle financial benefits from CSR, possibly due to the initial costs of implementing CSR programs, the regulated banking environment, or limited stakeholder responsiveness. Signaling Theory further suggests that CSR activities convey ethical conduct and responsible management to stakeholders, but in this context, the signals may not significantly influence short-term profitability. These findings align with literature highlighting that the CSR–profitability link is complex and context-dependent, and financial gains are not guaranteed in the short term.

The relationship between CSR and firm value, measured by Tobin’s Q, was also examined. CSR exhibited a negative but statistically insignificant effect on firm value, suggesting that CSR engagement does not meaningfully influence market valuation for the sampled banks. Signaling Theory posits that CSR can signal managerial quality and long-term commitment, thereby enhancing investor confidence. However, the results suggest that CSR activities by Ghanaian banks may not serve as strong signals in the eyes of investors, who may prioritize traditional financial indicators over non-financial disclosures. Stakeholder Theory similarly posits that CSR should support sustainable value creation through improved stakeholder relationships, yet the insignificant finding indicates these benefits are not sufficiently visible to affect market valuation. The results contrast with studies from other markets where CSR positively impacts firm performance, highlighting the role of institutional, market, and investor contexts in shaping the financial impact of CSR.

Finally, the study explored whether financial leverage moderates the CSR–profitability relationship. The interaction between CSR and leverage was found to be statistically insignificant, and marginal effects analysis confirmed that CSR’s impact on profitability remains negligible at low, average, and high leverage levels. Stakeholder Theory suggests that highly leveraged firms might prioritize debt obligations over long-term stakeholder investments,

potentially weakening CSR's financial effects. Signaling Theory indicates that CSR could reassure investors and creditors in leveraged firms, but the results suggest this mechanism does not materially influence profitability in Ghanaian banks. These findings underscore that CSR engagement appears to operate independently of capital structure decisions and that profitability is more influenced by operational scale, regulatory factors, and macroeconomic conditions than by the interaction of CSR and leverage.

The findings indicate that while CSR in Ghanaian banks may enhance reputation, trust, and stakeholder relationships, these benefits do not translate into statistically significant improvements in accounting or market-based performance within the period studied. The results highlight the contextual nature of CSR's financial effects and suggest that its primary role may be strategic and reputational rather than an immediate driver of financial outcomes.

## **5.0 CONCLUSION**

This study examined the relationship between Corporate Social Responsibility (CSR) and firm performance among listed banks in Ghana, using a quantitative longitudinal panel design covering seven commercial banks from 2007 to 2022. The results indicate that CSR has a positive but statistically insignificant effect on profitability, measured by Return on Assets, and a negative but insignificant effect on firm value, measured by Tobin's Q. Leverage was tested as a moderator, but the findings suggest it does not significantly influence the CSR–profitability relationship. These results imply that CSR initiatives in Ghanaian banks may enhance reputation, stakeholder trust, and regulatory goodwill, but these benefits do not immediately translate into measurable financial performance within the study period.

The conclusions of this study are subject to some methodological limitations. The small sample size, reliance on secondary disclosure-based CSR measures, and potential unobserved heterogeneity or endogeneity could limit the ability to detect significant relationships. Consequently, the observed insignificant associations should be interpreted as exploratory evidence rather than definitive proof of the absence of a CSR–performance link. The findings suggest that the financial relevance of CSR depends more on strategic integration with core banking operations than on the scale of spending or capital structure. CSR initiatives may create long-term value, but their impact may be indirect or contingent on factors not fully captured in this study.

Based on these findings, several practical recommendations emerge. Bank management should ensure that CSR initiatives are strategically aligned with core operations, such as financial inclusion programs, SME financing, green lending, and digital banking, to generate both social and financial value. Internal performance metrics should be linked to operational outcomes such

as customer retention, loan portfolio stability, and risk reduction. Boards of directors should strengthen oversight of CSR activities by linking them to strategic outcomes, establishing sustainability committees, and ensuring that CSR is treated as a tool for enhancing stakeholder confidence rather than as a symbolic activity. Regulators, including the Bank of Ghana, should emphasize the quality and strategic alignment of CSR initiatives, encouraging activities that reinforce financial system resilience and support socially beneficial lending. Investors and market stakeholders should interpret CSR disclosures in context, focusing on how initiatives connect to operational performance rather than assuming immediate financial gains.

Future research should examine the impact of specific CSR activities, including environmental, educational, and health-related programs, on both profitability and firm value. Other moderating factors, such as corporate governance, economic conditions, and organizational culture, should be considered to understand how CSR interacts with these variables. Expanding the sample to include microfinance institutions or banks from other African countries could provide more generalizable insights. Additionally, the use of advanced econometric techniques, such as system GMM or structural equation modeling could help uncover more nuanced relationships and potential causal pathways between CSR, leverage, and financial performance.

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