

## **The Financial Trade-Offs of Corporate Social Responsibility: A Simultaneous Equation Approach in the Nigerian Context**

**Olabamiji Atanda***Departement of Accounting*  
*University of Ibadan*

olabamiji.atanda@yahoo.com

**Abiodun Aikomo***Federal College of Education*  
*University of Ibadan*

aikomoabiodun1@gmail.com

**Idorenyin John Okon***Departement of Accounting*  
*University of Ibadan*

iddyokon22@gmail.com

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### **Abstract**

This paper examines the bidirectional relationship between corporate social responsibility (CSR) and non-financial firms' performance in an emerging economy using Nigerian non-financial firms from 2010 to 2022. Since CSR has been shown to have mixed evidence on profitability and there is little research in resource constrained environments, this study seeks to clarify how CSR influences profitability (return on assets) and vice versa. To deal with endogeneity and heterogeneity, the study uses the System Generalized Method of Moments (System GMM) to estimate the simultaneous equation model. The result of a negative effect of CSR disclosure on firm profits implies that substantial costs of CSR imposed on firms that may decrease short term returns. In addition, lower profitability forces firms to increase CSR efforts, perhaps as a strategic response to increase reputation and stakeholder support. The results of this study imply that CSR engagement largely entails financial trade off characterized by short term cost and future reputational upside; the relevance in this context is in that CSR is not really backed by regulation as in the case of Nigeria. This study provides a valuable contribution to the CSR-profitability dynamics in an emerging market context with insights that are actionable for managers, policymakers and investors on the terrain of CSR in financially constrained settings.

**Keywords:** Corporate Social Responsibility, Firm Performance, System GMM, Financial Trade-Offs, Nigerian Non-Financial Firms

### **1. Introduction**

Researchers still pay attention to the relationship between CSR and firm performance as companies are putting more weight on CSR for their strategic purposes. CSR was in the past considered associated with social and ethical obligations; however, it is embraced today as a value creator for corporations with ambiguous financial consequences (Maqbool, 2019; Pham & Tran, 2020). Different pressures that many firms face arise to balance CSR initiatives with profitability targets, and in this respect, there is tension between the short term financial

demands and the perceived long term benefits of CSR. While CSR has the potential to generate benefits for organizations (Uygur, 2016), the benefits of CSR are still highly questionable in countries that are still emerging due to resource constraints and the possibility of these CSR activities having an impact on their profitability (Okafor et al., 2021). Therefore, this study aims to resolve the financial tradeoffs in CSR in Nigerian non-financial firms, an area where the existing literature is inconclusive.

Recent studies indicate that CSR boost firm performance or weaken it is contingent on contextual and strategic factors (Buallay et al., 2020; Essel, 2023). For instance, positive public sentiment, trust from investors, and therefore enhanced valuation in the market, may result from CSR (Freeman, 2023). Also, CSR efforts are attended by major resource deployment, which can be extra cost to short term profitability, especially in the emerging economy like Nigeria where resources are scarce (Fahad & Busru, 2021). CSR in Nigeria is voluntary and unlike the case with developed markets, implementation is further complicated by economic challenges on the part of the firms. Specifically, we address this dual nature of CSR as a potential asset and a liability based on the case study of a resource limited environment, namely Nigeria and we investigate how CSR affects profitability in this setting.

The relationship between CSR and firm performance is bidirectional, which complicates the issue. CSR may influence firm profitability, but firm profitability, in turn, may influence CSR engagement owing to the fact that less profitable firms have less flexibility to invest in socially responsible initiatives (Xiao et al., 2018; Onkila & Sarna, 2022). This interdependency has been examined in the studies of developed economies, but in emerging economies where firms have different resource constraints and pressures, no studies have been conducted (Okafor et al., 2021). This study attempts to examine the reciprocal effects between CSR and profitability of Nigerian firms using simultaneous equation modeling and thus offers insights into the peculiar financial trade-offs faced by these firms. The findings may be useful in understanding how the strategies of CSR should be adapted to correspond to financial realities in emerging markets.

This research provides an opportunity to fill the gap in the understanding of CSR in Nigeria as compared to CSR in other contexts. The economic environment in which Nigerian firms operate is one of weak enforcement of CSR regulation and varying stakeholder expectations (Okafor et al., 2021). These conditions create a special environment in which CSR may have different financial outcomes than in developed markets (Fahad & Busru, 2021). The key contribution of the study lies in highlighting the differences of CSR experiences in various countries, which suggests CSR does have impact on financial performance, but it depends on context to a great extent – which issues are more relevant or not specified by legislations, depending on the country and other contextual factors.

We find that CSR disclosure significantly reduces firm profitability, suggesting that CSR activities may be associated with cost that potentially shift profitability from short run to long run. Nigerian firms may still practice CSR because of the immediate costs involved in building societal trust and responding to stakeholder expectations in an environment where reputational capital is important (Freeman, 2023) as posited by Legitimacy Theory. Moreover, Slack Resources Theory states that, despite their limited resources, firms with Slack, can engage in CSR because an increase in profitability gives them enough room to be involved in social activities without compromising financial stability (Xiao et al., 2018). On the contrary, the study finds that firm profitability has a negative effect on CSR, indicating that firms with lower financial performance may strengthen CSR efforts as a strategic response to improve corporate image and restore stakeholder confidence (Onkila & Sarna, 2022). This corresponds with Legitimacy Theory, which contends that companies under pressure can resort to CSR to legitimize its presence and respond to stakes of reputational risk, and Slack Resources Theory,

which suggests that companies that do not have extra resources, they will strategically utilize CSR to make up for money associated deficiencies with enhancing stakeholder support.

## **2. Literature Review**

### **2.1 CSR and Firm Performance**

Firms pursue CSR actions to accomplish environmental and social aims in tandem with monetary objectives which display their dedication to societal values (Buallay et al., 2020; Fahad & Busru, 2021). Corporate social responsibility brings together various initiatives that focus on ethical labor standards together with environmental sustainability measures and community development projects and corporate governance enhancements for creating beneficial stakeholder partnerships (Pham & Tran, 2020). Researchers apply different methods to measure CSR through CSR disclosures (Kuzey et al., 2021), social program expenditure (Maqbool, 2019) and complete CSR rating systems (Onkila & Sarna, 2022). Firm performance gets measured through financial metrics such as return on assets (Lee & Yang, 2021) or Tobin's Q (Ishaq et al., 2021) to determine the financial impact of CSR investments on businesses.

The performance benefits of CSR activities according to Legitimacy Theory stem from corporate actions that match societal standards which build trust and legitimacy (Freeman, 2023). CSR helps organizations preserve their operating authorization with society thus creating better stakeholder backing and stronger financial outcomes (Sekulić & Pavlović, 2018). Slack Resources Theory demonstrates that firms with sufficient financial capabilities tend to participate in CSR activities because they have the capacity to fund non-core activities which drive long-term business expansion (Xiao et al., 2018). Firms employ CSR as an operational tool to protect their reputation which leads to better profitability through positive stakeholder reactions.

Multiple academic investigations have researched the CSR-firm performance connection yet their results remain inconsistent. Essel (2023) discovered that Nigerian firms experience enhanced profitability through transparent CSR practice disclosure according to his research in Africa. Buallay et al. (2020) discovered that CSR practices create positive value for firms throughout Mediterranean countries because they build strong market reputations. Oware & Mallikarjunappa (2022) discovered negative effects in India because mandatory CSR spending decreased profitability for listed firms even though it did not produce immediate financial benefits. The research by Chen & Lee (2017) in Taiwan demonstrated that economic conditions shaped how CSR affected firm value while showing that CSR financial effects operate within specific contexts. Given the mixed evidence, the hypothesis is formulated as follows:

**H1: CSR has no significant effect on firm performance among listed non-financial firms in Nigeria**

### **2.2 Firm Performance and CSR**

The performance level of a firm determines its CSR commitment because profitable organizations can support social initiatives without risking financial stability (Miller et al., 2020; Freeman, 2023). Firms with high performance levels use CSR activities to build their reputational capital and meet stakeholder requirements which leads to enhanced long-term value creation (Patel, 2020; Pham & Tran, 2020). Firms dealing with financial difficulties tend to minimize CSR activities because they consider profitability as their primary focus (Maqbool, 2019). The Slack Resources Theory demonstrates that businesses with available financial resources can dedicate funds to CSR initiatives because profitability enables them



to conduct discretionary activities without affecting operational targets (Xiao et al., 2018). Firm performance acts as a protective shield which allows CSR engagement because profitable organizations dedicate their resources to socially responsible activities. The concept of Legitimacy Theory demonstrates that profitable firms actively work to preserve their legitimacy by following societal standards which strengthens their relationships with stakeholders and public image (Freeman, 2023; Sekulić & Pavlović, 2018). Profitable organizations should actively participate in CSR activities to preserve their favorable reputation and operational respectability.

Multiple research studies investigating the relationship between firm performance and CSR have delivered conflicting findings. The research by Fahad & Busru (2021) in an emerging market showed that profitable firms tend to participate in CSR activities to boost their social acceptance levels. The research by Okafor et al. (2021) in the US technology sector demonstrates that profitable companies regularly dedicate resources to CSR initiatives because financial strength enables such investments. The research by Buallay et al. (2020) in the Mediterranean region showed that firms with better profitability levels increased their CSR activities because stakeholders required greater social and environmental accountability from companies which financial resources enabled to fulfill these demands. The research by Chen et al. (2023) in China revealed no significant correlation between profitability and CSR activities thus indicating firm performance does not necessarily enable CSR initiatives. The authors propose that cultural and regulatory elements affect how businesses allocate resources for CSR activities even when profitability does not matter. The mandatory CSR expenditure policy in India makes profitability an insignificant factor for CSR spending according to Oware & Mallikarjunappa (2022). Based on these insights, the following hypothesis is proposed:

**H2: Firm performance has no significant effect on CSR engagement among listed non-financial firms in Nigeria**

### **3. Methode**

#### **Research Design**

The research uses purposive sampling to select its sample by including firms that meet particular selection requirements. The research selects companies that are listed on the Nigerian Exchange Group throughout the period from 2010 to 2022. Companies included in the study must publish their annual financial reports to the public during this period. The study excludes companies that have subsidiaries in Nigeria but do not list on the stock exchanges. The research eliminates firms that have listed or delisted within recent times. The research included only non-financial companies that maintained complete data because they continued their operations. The research includes 76 non-finance companies operating in Nigeria as the final sample.

#### **Data and Variable Measurement**

##### **Dependent Variable**

This study expresses firm performance in terms of accounting performance. Particularly, the study proxies the accounting-based performance with return on asset following the studies of Sharpe and Hanson (2020); Fahad and Busru (2020), Alikaj, Nguyen and Medina (2017); and

Miller, Eden and li (2020). This study employs return on assets since it is a direct test of the efficiency of management on the use of assets to generate economic benefits (IASB, 2008).

### **Independent Variable**

The main independent variable examined in this study focuses on corporate social responsibility (CSR). Previous research on CSR has received criticism because it employed improper methods to measure CSR. The assessment of CSR has been conducted through two different proxy measures including Moskowitz's social responsibility ratings (Cochran & Wood, 1984;) and Fortune corporate reputation index (Fomburn & Shanley, 1990). The measures face criticism because they fail to include stakeholders' concerns (Aupperle, Carroll, & Hatfield, 1985; Ullman, 1985). Recent research by Buallay et al (2020) and Pham & Tran (2020) uses CSR data from multiple evaluation agencies which assess CSR through stakeholder-based perspectives including Global Reporting Initiations. Multiple voluntary standards including ISO 14000, OHSAS 18000, Social Accountability (SA) 8000 (SAI, 2001), United Nations' global compact, and Global Reporting Initiative guidelines (GRI) set up extensive responsible business practices for addressing stakeholder concerns about environmental hazards and employee health, community welfare, and customer satisfaction. The study follows GRI (2021) by constructing CSR as a weighted combination of dummy variables which represent social information disclosure in annual financial statements using "1" for present disclosures and "0" for absent disclosures. The dataset contains information about employee and training disclosure as well as customer relation disclosure and local community disclosure.

### **Control Variables**

Following prior studies on corporate social responsibility and performance nexus, this study employs various macroeconomic and firm-level attributes as control variables (Okafor et al 2021, Buallay et al 2020, Feng et al 2017, Dakhli 2022, Laskar & Maji 2016, Khan et al 2023). Specifically, to stabilize the goodness of fit of the regression estimates, the study controls the model with capital structure, market capitalization, asset growth, firm size, and credit to private sector. We measure capital structure in terms of the ratio of total liability with total asset following the study of Essel (2023). Furthermore, market capitalization is measured using the log of market capitalization (Permata & Alkaf, 2020). Also, in line with the study of Fitrianingrum, Suhendro and Masitoh, (2020) asset growth is measured as current year total asset minus previous year total asset divided by previous total asset. Firm size is measured as the natural logarithm of total asset following the studies Fitrianingrum et al (2020).

### **System Econometric Model**

To investigate the bidirectional relationship between corporate social responsibility (CSR) and firm performance, we specify a system of simultaneous equations that captures the mutual influence of these variables. The model consists of two primary equations:

$$RETA_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 MCAP_{it} + \beta_3 ASGT_{it} + \beta_4 DETA_{it} + \beta_5 FSIZ_{it} + \mu_{it} \dots \dots (3.1)$$

Equation 3.1 examines the impact of corporate social responsibility disclosure (CSR) on firm profitability, specifically measured by return on assets (RETA). This model is designed to capture whether CSR activities, often seen as strategic investments in stakeholder relationships and reputation, translate into financial benefits or impose costs on firms. In this model, RETA serves as the dependent variable, with CSR as the primary independent variable,

and several control variables—market capitalization (MCAP), asset growth (ASGT), debt-to-asset ratio (DETA), and firm size (FSIZ)—included to account for other factors influencing profitability. Market capitalization reflects the firm's valuation, potentially affecting resources available for CSR; asset growth represents expansion dynamics; the debt-to-asset ratio captures the firm's financial leverage, indicating how debt levels might influence or restrict profitability; and firm size controls for the scope of operations, as larger firms may exhibit different profitability characteristics.

$$CSR D_{it} = \beta_0 + \beta_1 RETA_{it} + \beta_2 MCAP_{it} + \beta_3 ASGT_{it} + \beta_4 DETA_{it} + \beta_5 FSIZ_{it} + \mu_{it} \dots \dots (3.2)$$

The second model in this study investigates the effect of firm profitability, measured by return on assets (RETA), on corporate social responsibility disclosure (CSR D), with the aim of understanding whether more profitable firms are more likely to engage in CSR activities. In this model, CSR D is the dependent variable, while RETA is the main independent variable.

We employ the System Generalized Method of Moments (System GMM) approach to estimate equation 3.1 and 3.2 above. The use of System GMM in dynamic panel data regression is particularly well-suited for this analysis, given the time-series and cross-sectional dimensions of the data collected across sampled firms over multiple years. This method allows for the precise estimation of relationships by leveraging a large number of observations, which enhances statistical accuracy and minimizes degrees of freedom issues. Unlike traditional methods, System GMM is effective in addressing multicollinearity concerns and capturing the unique cross-sectional effects of individual firms, allowing us to observe how specific characteristics impact the dependent variable. Additionally, System GMM is highly effective in addressing both heterogeneity and endogeneity issues, which are common challenges in panel data analyses. By incorporating lagged variables as instruments, System GMM controls for unobserved firm-specific effects that may be correlated with explanatory variables, ensuring robust and consistent parameter estimates. This approach also accommodates individual-specific effects, which are often unobservable and may be associated with the independent variables in the model. Therefore, System GMM provides a rigorous framework to analyze dynamic relationships in this study, offering reliable insights into the interactions between the variables.

## **4. Result and Discussion**

### **4.1 Descriptive Statistic and Variable Correlation**

The descriptive statistics for firm performance and CSR measure and control variables appear in Table 1. Each variable's statistical overview including mean and standard deviation values appears in the table to show the sample distribution patterns. The return on assets (RETA) variable demonstrates a mean value of 0.791 and a wide standard deviation of 20.281 while spanning from -263.720 to 176.270. The wide distribution pattern reveals major profitability disparities between firms because some companies report major losses while others generate substantial profits. Market-based performance data of firms becomes more visible through the analysis of Tobin's Q (TOBQ). The market perceives firms positively since their average value exceeds book value by 1.388 while the standard deviation stands at 1.569. The wide range of values between -5.710 and 23.870 demonstrates that the market provides both deep discounts and substantial premiums to different firms. The CSR disclosure score (CSR D) demonstrates wide variations in CSR



practices since it has a mean of 0.499 and standard deviation of 0.218. The sampled firms show moderate CSR disclosure levels according to their average value of 0.5 which represents half of the possible CSR information.

The control variable market capitalization (MCAP) demonstrates a mean value of 6.699 while its standard deviation reaches 1.011. Data points between 3.950 and 10.610 indicate a stable distribution pattern among the sample studied. The analysis of asset growth (ASGT) also sheds light on firms' strategic positioning and stability, with a mean of 12.014 and a high standard deviation of 48.170. The data shows that firms demonstrate either fast expansion or significant reduction in growth based on their unique business approaches and market dynamics which span from -310.460 to 590.080. The debt-to-asset ratio (DETA) shows the financial structure of the sample through a mean of 66.387 and standard deviation of 40.371 across a range from 0.960 to 395.450. Factoring in the generally high leverage indicates that most firms adopt substantial debt obligations that influence their financial capabilities to allocate resources effectively. Companies with high debt levels often use available funds to decrease debt instead of using them to support discretionary CSR activities. Companies that maintain middle-range debt utilization use CSR to build better relationships with stakeholders and strengthen their general financial performance. The firm size (FSIZ) variable shows a mean value of 7.086 and standard deviation of 0.871 to help understand sample firm characteristics consistency. The data shows that most firms in the sample fall within the mid-sized to large category since their values span from 5.030 to 9.450. These companies face increased public scrutiny due to their size.

Table 1. Descriptive Statistic

Variable	Obs	Mean	Std. Dev.	Min	Max
reta	988	0.791	20.281	-263.720	176.270
tobq	988	1.388	1.569	-5.710	23.870
csrd	988	0.499	0.218	0.000	1.000
mcap	988	6.699	1.011	3.950	10.610
asgt	988	12.014	48.170	-310.460	590.080
deta	988	66.387	40.371	0.960	395.450
fsiz	988	7.086	0.871	5.030	9.450

**Source: Authors (2024) Using STATA Package v.18.5**

Table 2 shows that firms that disclose more CSR information show weak positive associations with their return on assets according to the correlation results (0.205). The negative correlation of -0.079 between CSR disclosure and Tobin's Q indicates weak opposition between these variables in this sample population. Market capitalization (MCAP) shows a moderate positive link with return on assets (0.373) which demonstrates that bigger firms generally achieve better returns on assets. Larger firms in the sample demonstrate higher market value through Tobin's Q (0.313) and CSR disclosure (0.372). Firms that show asset growth (ASGT) tend to achieve higher profitability levels according to the 0.347 correlation value.

Asset growth shows a minimal positive relationship with CSR disclosure according to the weak 0.082 correlation value. Firms with higher debt levels tend to report lower returns on assets according to the negative association between debt-to-asset ratio (DETA) and return on assets (-0.350). Highly leveraged firms tend to show lower levels of CSR disclosure

according to a negative correlation of -0.157. The analysis shows that firms with higher debt levels have a moderate positive impact on their market valuation according to Tobin's Q measurement (0.305). The results indicate that larger firms demonstrate greater likelihood to participate in CSR activities because of their positive relationship with CSR disclosure (0.352). The relationship between firm size and Tobin's Q stands at -0.015 which shows firm size has a minimal impact on market-based performance in this sample.

Table 2. Spearman's Rank Correlation Coefficients

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) reta	1.000						
(2) tobq	0.100	1.000					
(3) csrd	0.205	-0.079	1.000				
(4) mcap	0.373	0.313	0.372	1.000			
(5) asgt	0.347	0.024	0.082	0.232	1.000		
(6) deta	-0.350	0.305	-0.157	-0.082	-0.047	1.000	
(7) fsiz	0.209	-0.015	0.352	0.824	0.250	0.090	1.000

Source: Authors (2024) Using STATA Package v.18.5

#### 4.2 The Link Between CSR and Performance

In Table 3, we report the results from the estimation of the equations examining the relationship between corporate social responsibility (CSR) and firm performance. We employ a system of equations to capture the bidirectional, interdependent nature of this relationship, providing a comprehensive analysis of how CSR and firm performance influence each other. The diagnostic tests confirm the appropriateness of the model and instruments used in the estimation. The Sargan test (-0.597,  $p = 0.312$ ) and Basmann test (2.01,  $p = 0.211$ ) both yield  $p$ -values above 0.05, indicating that we fail to reject the null hypothesis of instrument validity, suggesting that the instruments are exogenous and appropriately specified. The AR1 test (-4.401,  $p = 0.000$ ) indicates significant first-order autocorrelation, which is expected in system GMM and does not indicate a problem with the model. Importantly, the AR2 test (-0.838,  $p = 0.402$ ) shows no significant second-order autocorrelation, confirming that the lagged instruments are valid and uncorrelated with the error term at the required lags.

Table 3. Relationship between Corporate Social Responsibility and Firma Performance

	(1) 2SLS	(2) 3SLS	(3) System GMM
<b>Equation 3.1</b>			
csrd	-10.009 (4.371)**	-24.203 (0.852)***	-13.505 (0.028)***
mcap	-0.151 (3.818)	2.230 (3.737)	1.034 (3.603)
asgt	0.092 (0.029)**	0.081 (0.028)**	0.085 (0.032)**
deta	-0.543 (0.051)**	-0.600 (0.048)***	-0.506 (0.064)***
fsiz	2.884 (3.829)	2.428 (3.814)	2.241 (3.571)
<b>Equation 3.2</b>			
reta	-0.037	-0.041	-0.074



	(0.011)***	(0.002)***	(0.000)***
mcap	0.099	0.092	0.075
	(0.154)	(0.153)	(0.266)
asgt	0.003	0.003	0.006
	(0.002)	(0.001)***	(0.002)**
deta	-0.023	-0.025	-0.037
	(0.006)**	(0.002)**	(0.005)***
fsiz	0.088	0.100	0.167
	(0.160)	(0.156)	(0.264)
Sargan Test			1.89 {0.312}
Bamann Test			2.01 {0.211}
AR1			-4.401{0.000}
AR2			-0.838{0.402}
N	912	912	912

Standard errors in parentheses; \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Source: Authors (2024) Using STATA Package v.18.5

The system GMM estimation shows CSRD having a coefficient value of -13.505 at a p-value of 0.000 which demonstrates 1% statistical significance. The research indicates that firms with elevated CSR disclosure practices tend to demonstrate reduced profitability based on the RETA measurement. The negative relationship suggests that CSR activities create short-term financial burdens on the firm which affect profitability despite their long-term reputation benefits. The results match findings from Aupperle et al. (1985) and Buallay et al. (2020) who showed that CSR initiatives can create financial strain on firms when stakeholders fail to recognize the efforts or when CSR initiatives demand significant resources.

The system GMM estimation reveals RETA has a statistically significant effect on CSRD through its -0.074 coefficient and 0.000 p-value. Firms that demonstrate lower profitability levels tend to increase their CSR activities because they seek to build their reputation or gain stakeholder backing. Fombrun & Shanley (1990) and Freeman (2023) support this interpretation by showing that firms use CSR initiatives to build stakeholder relationships when their financial performance weakens. High profitability levels might lead such businesses to prioritize their core activities instead of dedicating efforts to CSR engagement.

The control variables help to explain these research findings. Asset growth has been found to positively impact RETA with a magnitude of 0.085 and p-value of less than 0.05 in the system GMM model. This indicates expanding assets create financial improvements which influence CSR investment capacity of firms according to their strategic goals. The relationship between debt-to-asset ratio (DETA) and RETA is negative and significant at -0.506 ( $p < 0.01$ ) which demonstrates that higher leverage reduces profitability and available resources for CSR activities. The system GMM results demonstrate that firm size (FSIZ) and market capitalization (MCAP) show no statistical significance in their relationships with profitability and CSR engagement levels in this context.

## **5. Conclusion**

We studied the essential relationship between corporate social responsibility (CSR) practices and firm performance among non-financial organizations in Nigeria throughout the 2010-2022 period. The main research objective focuses on understanding how CSR affects firm profitability through return on assets (RETA) measurements and how firm profitability levels affect CSR engagement in a two-way relationship. This research implements system GMM simultaneous equation modeling to analyze the interdependent financial effects of corporate social responsibility on corporate governance because CSR has gained prominence in governance systems yet existing evidence remains inconsistent. The research demonstrates that CSR disclosure (CSR-D) produces negative effects on firm profitability (RETA) which indicates CSR activities generate immediate costs that reduce short-term profitability levels. Lower firm performance measured by RETA leads companies to improve their CSR activities which demonstrates their need to build reputation and gain stakeholder support.

The study reveals multiple interaction patterns between CSR activities and profitability which depend on how financial state and strategic decisions affect each other. The system GMM model produces more accurate results than 2SLS and 3SLS which strengthens the evidence supporting these reciprocal effects between the variables. The main point of this investigation establishes that operating CSR programs requires companies to manage the financial expenses of social initiatives versus expected reputation benefits within environments where profitability influences CSR choices. The research evidence reveals that corporate leaders and policymakers should develop purposeful CSR programs which fit with the company's financial goals and sustained value creation objectives. The research provides a complete perspective on CSR-profitability dynamics in Nigeria by showing how businesses can handle their dual financial and social obligations.

Corporate managers alongside directors need to understand CSR financial costs while assessing CSR initiatives through both their expenses and their ability to enhance company reputation. CSR strategies need to become part of long-term strategic planning because they influence profitability and profitability affects CSR outcomes. Policymakers along with regulators need to create responsible CSR policies which acknowledge business limitations regarding financial resources. The assessment of firm value by investors and analysts should include CSR activities while they evaluate investment potential through a balance between CSR and financial indicators. The research adds to academic understanding by studying CSR-profitability connections in Nigeria which expands the geographical boundaries of CSR research in emerging markets. The simultaneous equation modeling together with system GMM methodology strengthens the research findings by resolving endogeneity problems while detecting reciprocal relationships between CSR and profitability. This research theoretically enhances CSR strategic understanding by validating CSR as both a business instrument and financial element especially within environments lacking CSR regulatory support. Future research should evaluate the CSR-profitability relationship across different sectors to determine how CSR affects and responds to firm performance.

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