Interconnecting Profit and Purpose: Corporate Social Responsibility as a Driver of Financial Performance in Nigerian Manufacturing Firms

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ABSTRACT

This study investigates the effect of corporate social responsibility (CSR) expenditure on financial performance among quoted Nigerian manufacturing firms. Using panel data from ten firms over the 2013–2022 period, the study employs pooled, fixed-effects, and random-effects regression techniques to examine the relationship between CSR spending and Profit After Tax (PAT), Return on Assets (ROA), and Return on Equity (ROE). The findings reveal a positive but statistically insignificant association between CSR expenditure and financial performance indicators. Qualitative analysis of CSR disclosures suggests that CSR practices are largely philanthropic and weakly integrated into core operational strategy, potentially explaining the limited financial impact. The study further identifies sectoral differences between consumer and industrial goods firms, emphasizing the contextual nature of CSR effectiveness. The results highlight the need for strategically aligned, industry-specific CSR initiatives to enhance financial outcomes.

Keywords: Corporate Social Responsibility, Financial Performance, Manufacturing Firms, Nigeria, Panel Data.

INTRODUCTION

Background to the Study

Corporate Social Responsibility (CSR) has become a mainstream business practice, attracting attention from governments, investors, managers, consumers, and scholars due to its role in shaping firm–stakeholder relationships. (Susilawati et al., 2024). In business field or studies, CSR is conceptualized to define how business deals with its stakeholders within social surroundings, but its practice defines it as integral business management (Kabir & Chowdhury, 2023). The government supports CSR by providing some benefits and also endorsing it because it is social-relevant too.

The origin of CSR is linked to the conflicting views of Paul Samuelson and Milton Friedman's perceptions on corporate social responsibility. Samuelson argued for corporate social responsibility to act as a good citizen for social welfare reasons (Vuong 2022). According to Freeman (1984), for corporate social responsibility to militate against free-market capitalism and for its leaning to socialism at its very core, firms should not use shareholders' money for social welfare objectives as cited by Kabir & Chowdhury (2023). Nevertheless, no matter what its ideological stake is, corporate social policies culminate in social impacts and shift expenses to diverse social actors (Ortiz-Martinez, Marin-Hernandez, et al., 2023). A development approach embracing corporate social responsibility is becoming part of development processes in Nigeria because of influence by both the private and public development sectors (Siueia et al., 2019).

The correlation between CSR and corporate performance is widely argued among researchers. Financial performance refers to a firm's capacity to generate sustainable profitability and returns on investment under varying economic conditions. (Vuong, 2022). Despite being largely examined by classical performance measures such as company size, liquidity ratio, leverage ratio/corporate governance ratio among others, CSR is recently viewed as new variable entering into corporate performance analysis having benefit to include additional values but also potentially damaging to others or to company itself. On the one hand side, investing on CSR is viewed as expense to profit and may reduce short-term profits also because cost of money is very valuable (Okafor et al., 2021). Conversely, CSR also enhances corporate image or customer/loyalty and investors' confidence (Ofurum & Ngoke, 2022; Muralida, 2022) having no direct association or implication to company's overall long-term performance. Financial benefits may emerge when CSR initiatives are strategically aligned with stakeholder expectations and core business objectives. (Rahmansyah & Dhany, 2023).

Problem Statement

In addition to their role in fostering economic growth, many Nigerian firms, especially in the manufacturing sub-sector, are experiencing low financial performance and relative stability which has culminated in closure, merger and divestment by multinational corporations. Infrastructural weakness, managerial inefficiency, poverty and economic instability have all contributed to compounding these consequences. In this reference, CSR is considered to be a strategic instrument of competitiveness, HR attraction, poverty relief and corporate reputation. However, CSR may be a drain on corporate resources if implemented inappropriately or not consonant with strategic priorities.

Both positive and neutral effects of CSR on firm performance have been identified in CSR– performance research, found at an international level. Researches in advanced (Vuong, 2022; Ortiz-Martinez et al., 2023), developing (Aulia & Fithria, 2023; Anugrah & Marietza, 2024) and Nigeria (Okolie & Igbini, 2020; Echobu & Echobu, 2023; Eboh & Uzor, 2022; Ibe, Oladele, Kaka, & Ale, 2022; Oboreh & Arukaroha, 2021) have documented positive and negative consequences. But most of the Nigerian studies are concentrated on the banks rather than non-financial sector. Since manufacturing companies have a critical role to play in the process of industrialization and national development, there is the need to research into how CSR has impact on the financial performance of these organizations.

Research Questions

i. What is the effect of corporate social responsibility (CSR) spending on the profit after tax (PAT) of manufacturing firms in Nigeria?

ii. How does CSR expenditure influence the return on assets (ROA) of manufacturing firms in Nigeria?

iii. What is the effect of CSR expenditure on the return on equity (ROE) of manufacturing firms in Nigeria?

Objectives of the Study

The main objective of this study is to investigate the influence of corporate social responsibility on the financial performance of manufacturing firms in Nigeria. The specific objectives are to:

i. Examine the effect of CSR spending on the profit after tax (PAT) of manufacturing firms in Nigeria.

ii. Assess the impact of CSR expenditure on the return on assets (ROA) of manufacturing firms in Nigeria.

iii. Analyze the effect of CSR expenditure on the return on equity (ROE) of manufacturing firms in Nigeria.

Research Hypotheses

H01: CSR spending has no significant effect on the profit after tax (PAT) of quoted manufacturing firms in Nigeria.

H02: CSR spending has no significant effect on the return on assets (ROA) of quoted manufacturing firms in Nigeria.

H03: CSR spending has no significant effect on the return on equity (ROE) of quoted manufacturing firms in Nigeria.

Significance of the Study

This study yields various outcomes. In regard to the management of manufacturing companies, this study may bring insights to manufacturers or companies within the manufacturing industry seeking to gain enlightenment on the role of corporate social responsibility (CSR) on specific key performance indicators and offer strategic recommendations to viewpoints on key performance indicators decisions. In regard to the government, this study brings insights to policymakers for developing policies to mediate between social requirements and company sustainability. This study also benefits investors/analysts by considering CSR components in evaluating investment, while the general public will also benefit by having deeper insights into the risks involved by companies seeking to engage in CSR activities. This study also contributes to extending insights to already established literature on corporate social responsibility-performance nexus relationships within the context of Nigeria by acting as one valuable reliable source for future studies and developments.

Scope of the Study

This study is focused on quoted manufacturing firms in Nigeria to examine the influence of CSR cost on selected finance performance measures: profit after tax (PAT), return on assets (ROA), and return on equity (ROE). This study will use financial information for a period of ten years (2014–2023) for sampled firms to draw on contemporary information while also being mindful of time and cost constrains.

LITERATURE REVIEW

This chapter comprises the review of extant literature. The chapter discussed the relevant concepts relative to the topic of this study. However, the chapter as well discusses relevant theories with regards to the discourse of the study. In the same vein, the chapter reviews the closely related empirical works and literature of several scholar researchers in field.

Concepts and Conceptual Linkages

Corporate Social Responsibility

The notion of CSR is widely talked about for several years but not clearly defined. CSR as "A Concept" Carroll (1979) argued CSR to include three categories of responsibilities: economic responsibilities for organizations, and also for individuals for their own organizations as defined by business ethics; legal and social responsibilities for individuals toward organizations or for businesses toward individuals for which organizations have no further obligations than those stipulated by law; philanthropic or social responsibilities for individuals toward which organizations have no further social obligations than helping to improve stakeholders' lives or to satisfy their desires. According to Zhang and Xu (2023), Based on Carroll's framework: "CSR refers to business's responsibility to its environment and society while seeking to meet its own economic goals."

It is also argued that CSR is increasingly being regarded "as a business strategy to achieve sustainability" (Boonual et al, 2023). CSR is getting growing emphasis because of serious social and environmental problems (National Economic and Social Development Board, 2017). Other than helping raise corporate reputation, CSR is supportive of sustainable development (Siriphat, 2016) and positively linked to favorable outcomes of corporate performance (Boonual et al., 2017). It is also noted by regulative bodies how CSR plays its role. For instance, considering the explanation of CSR put forward by "Securities and Exchange Commission" (2017) as ""balance for business and society and between business and environmental co-existence for sustainable development,"" it is apparent that Udomthanasansakul (2021) strongly points out "corporate responsibility towards social and environmental concerns."

When this is implemented within the business itself, it should include CSR activities which are ethical and sustainable for overall economic development. This is also aligned to the triple bottom-line approach (TBL or Economic, Social and Environmental Needs) and also to UN's SDGs (ElAlfy et al., 2020). Because of this alignment, it is now being viewed more and more as an enabler for successful business performance.

Financial Performance

Financial performance is still at the heart of strategic management performance analysis and is usually treated as the dependent variable. It is defined otherwise and measured in different ways. Taouab and Issor (2019) highlight that to date, no widely accepted definition is adopted, depending on whose perspective is being taken. Performance Performance is defined as outcomes which demonstrate competitiveness, efficiency, and effectiveness (Verboncu & Zalman, 2005). It is seen as activities which are associated with corporate goals (Campbell et al 1993). It is also argued to be a " bag-word" which includes growth, profits, productivity, and efficiency (Colase 2009) while emphasizing "financial and non-financial dimensions" (Leans and Euske 2006).

Performance management is significant especially among the complexities associated with the contemporary dynamic and competitive setting for which organizations have to respond to (Okolie & Igbini, 2020). A company at the forefront of human capital management, supply chain management, community and relation relationship management, and innovation is poised to achieve sustainable performance (Taouab & Issor, 2019).

Based on classification by Richard et al. (2009), performance measures are further categorized into three dimensions: (i) Financial performance (profit/return on assets (ROA)/return on investment (ROI)), (ii) Product-market performance (sales and market share), and (iii) Shareholder returns (economic value added (EVA)/total return). Based on ideas from Drucker (1993) and Friedman (1962), management effectiveness can justly be said to include measures of profitability/return on equity/market success. Based on this school of thought, for instance, ratios include ratios of sales to market price (market success ratio), earnings ratios like return on investment (profitability ratio), and economic value added (return on equity ratio). Following suit, for its objectives to be achieved, measures for financial performance include profit after tax (PAT), return on assets (ROA), and return on equity (ROE) (Okolie &Igbini, 2020).

Theoretical Review

This particular study is based on stakeholder theory and corporate culture theory since both theories have offered significant insights into the link between corporate social responsibility and financial performance.

The roots of stakeholder theory lie in academia during the 1960s at Stanford University and it really developed during the 1980s because it started being implemented during corporate governance structuring in Western nations and diverged from being linked to putting primary interest on its shareholders (Freeman 1984). This stakeholder theory is based on its stakeholders being sustainable and flourishing only if they take care of demands and requirements of not just shareholders but also all stakeholders at large. Freeman defined stakeholders very loosely (1984)-Strategic Management: A Stakeholder Approach-anyone and any group of individuals or any number of individuals or groups having influence or being influenced by stakeholders' objectives being achieved. Clarkson defines stakeholders very narrowly (1995)-stakeholders being all individuals or groups of individuals or any number of individuals or groups of individuals providing physical or financial or human capital to corporations and thus incur risks associated to operation of corporations. This particular stakeholder theory was further developed by researchers associated to China by not only focusing on stakeholders but also on directly associated individuals such as business interest of shareholders, business interest of its creditors and employees and interest of its consumers and suppliers but also on indirectly associated stakeholders or groups such as Governments and its associated societies or communities and environmental media (Chaohui 2007). Rigby 1993 clarified this point by stressing on its stakeholders being centered around its mission statement and should have their objectives being aligned to corporate stakeholder's objectives and Deng 2012 showed firstly how corporations focusing on stakeholder's objectives have resulted to increase its performance standpoint thus making stakeholder theory having profound meaning because stakeholder approach helps to introduce CSR which acts as balancing point between conflicting stakeholder's objectives to improve corporation sustainability and performance standpoint during its surplus timeline.

The theory of culture is also significant to the corporate system. It rose to fame through Ouchi (1981a, b) during the 1980s as Japan became a gigantic economic power during its time, "Theory Z: How American Business Can Meet the Japanese Challenge" where Ouchi called "corporate culture" to Western management vocabulary. Later on, it was developed by Schein (1985) as he defined corporate culture as: "A system of shared meaning embodied in and around organizations and achieved through processes of social interaction among its members" and is described through three dimensions: visible artifacts, espoused values and basic assumption. This dimensions

constitute basic fabric of OB strategies and stakeholders approach because corporate culture deals "with values, beliefs, and norms of influence" for employees' action and stakeholders' perception (Schein 2010). On her side, Zhan (2006) also argued corporate culture's vital spirit is found "in corporate philosophy and mission strategy and spirit values too". While in his book "Management: Tasks, Responsibilities, Practices" (Drucker 1973), Drucker put further stress to business to have abreast its mission statement right at its beginning to address basic questions "What business are we in? What should we do? What position are we pursuing? What values and strategies should we pursue for them?" Mission statement thus is extrapolating "the corporation's own internal culture" whose meaning permeated to the external sphere telling customers as well as the general public "how they are and what they want to do". Since "informal" systems' purpose both corporate cultures and mission statement strongly interlink themselves to each other impacting largely on corporate behavior and stakeholders' approach too.

In this case, stakeholder theory and corporate culture theory combined constitute a good theoretical lens to use. While corporate culture is reflective of some description of values inside to influence CSR, stakeholder theory recognizes CSR's influence on business performance because it is viewed as a strategic approach to manage relationships between stakeholders. Since this paper is based on CSR's influence on business performance, stakeholder theory is applied as the framework for this study.

Empirical Review

Evidence from Developed Economies

Empirical evidence from developed economies presents mixed outcomes regarding the CSR–financial performance (CSR–FP) nexus. Several studies report positive long-term effects of CSR on firm value and resilience (Jahmane & Gaies, 2020; Liu et al., 2020). These studies suggest that CSR enhances corporate reputation, reduces risk exposure, and improves stakeholder trust, thereby contributing to sustained financial outcomes.

However, other studies highlight short-term trade-offs. For example, Kuo et al. (2021) found that early adoption of ESG practices reduced ROA in the short run but generated positive effects over time. Similarly, Huang et al. (2020) argue that economic fluctuations moderate the CSR–FP relationship, indicating that macroeconomic conditions shape outcomes.

Overall, developed market evidence suggests that CSR may improve long-term performance but can exert short-term financial pressure depending on strategic alignment and market context.

Evidence from Developing Economies

Evidence from developing economies also remains inconclusive. Studies in Indonesia and Bangladesh (Aulia & Fithria, 2023; Kabir & Chowdhury, 2023) report significant positive relationships between CSR and profitability measures. However, moderating variables such as governance quality, leverage, and managerial power often influence the strength and direction of this relationship.

In several cases, CSR effects appear conditional rather than direct. For instance, Marheni and Kristina (2023) find that financial leverage moderates the CSR–ROA relationship. Similarly, Hassan et al. (2024) demonstrate that innovation mediates CSR outcomes in U.S. firms, highlighting the importance of strategic integration.

Thus, in developing contexts, CSR effectiveness depends heavily on institutional structures, governance quality, and managerial strategy.

Evidence from Nigeria

Empirical findings in Nigeria are similarly mixed and sector-sensitive. Studies in the banking sector largely report positive CSR–FP relationships (Itoya et al., 2022; Okolie & Igbini, 2020). In oil and gas firms, CSR expenditure has been shown to improve ROA and ROE (Obiyo & Obo-Sam, 2022).

However, evidence from manufacturing firms remains limited and inconsistent. While Azeez et al. (2020) and Azuma (2020) report positive impacts, Efeeloo (2020) finds no significant relationship between CSR investment

and profitability.

Importantly, many Nigerian CSR studies focus on financial institutions rather than non-financial sectors. Manufacturing firms—despite their environmental exposure and community footprint—remain under-examined.

Synthesis and Research Gap

Existing scholarship reveals three interrelated empirical patterns in the corporate social responsibility (CSR) literature. First, while CSR engagement is frequently associated with enhanced long-term financial performance, it may generate short-term cost pressures that temporarily constrain profitability, reflecting the strategic trade-offs inherent in socially responsible investment. Second, the CSR–financial performance nexus is rarely linear; rather, it is often mediated or moderated by firm-level and institutional factors such as governance quality, innovation capacity, leverage structure, and regulatory environment. These conditioning variables shape the extent to which CSR initiatives translate into measurable financial gains. Third, within the Nigerian context, empirical evidence remains disproportionately concentrated in the banking sector, leaving manufacturing firms comparatively underexamined despite their substantial environmental footprint, stakeholder exposure, and developmental relevance.

Given the central role of manufacturing in Nigeria's industrialization agenda and its heightened interaction with communities, regulators, and supply chains, sector-specific investigation is both timely and necessary. This study therefore addresses a critical gap by empirically examining the impact of CSR expenditure on financial performance indicators—profit after tax (PAT), return on assets (ROA), and return on equity (ROE)—among quoted Nigerian manufacturing firms over a ten-year period. By shifting the analytical focus toward manufacturing, the study contributes to a more balanced and contextually grounded understanding of the CSR–financial performance relationship in Nigeria.
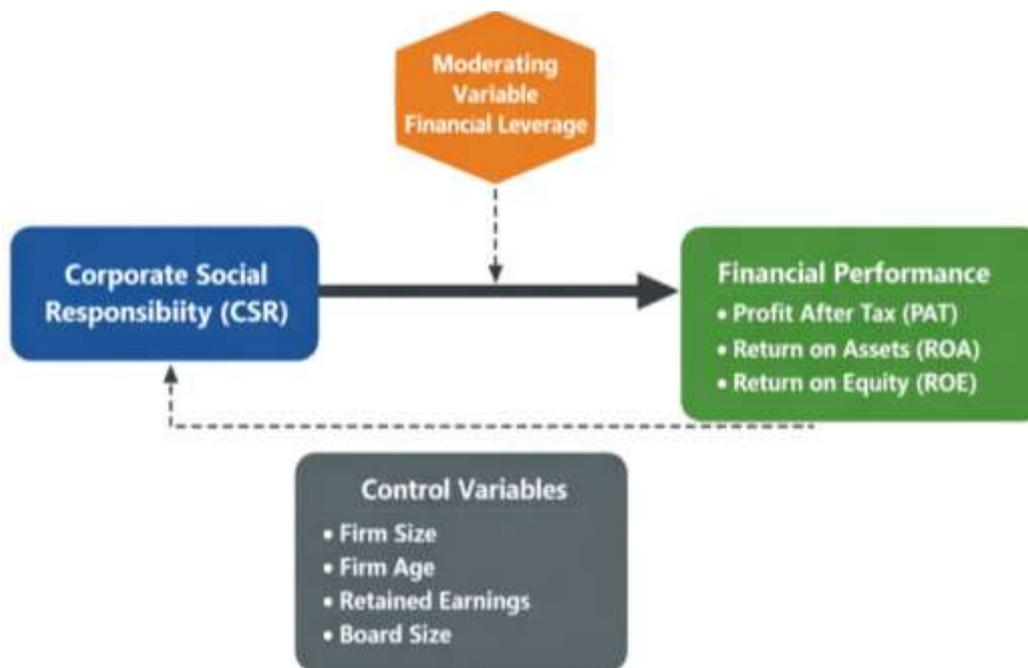
Conceptual Framework

Figure 1: Simplified Conceptual Framework Illustrating the Direct Effect of Corporate Social Responsibility (CSR) on Financial Performance, with Financial Leverage as a Moderating Variable and Firm Characteristics as Control Variables.

This study conceptualizes corporate social responsibility (CSR) expenditure as the primary independent variable influencing financial performance among manufacturing firms in Nigeria.

Financial performance is proxied by:

Profit After Tax (PAT)

Return on Assets (ROA)

Return on Equity (ROE)

The framework assumes a direct relationship between CSR expenditure and financial performance, consistent with stakeholder theory, which posits that firms that effectively manage stakeholder relationships can enhance long-term profitability and sustainability.

In addition to the direct effect, financial leverage is introduced as a moderating factor. Firms with high leverage may experience reduced financial flexibility, potentially weakening the positive influence of CSR expenditure on performance outcomes.

To ensure robustness, the model controls for firm-specific characteristics including:

- Firm Size

- Firm Age

- Retained Earnings

- Board Size

These variables are included because prior literature suggests they influence financial performance independently of CSR activity.

The simplified conceptual framework therefore focuses on empirically testable relationships, ensuring strong alignment between theoretical positioning and statistical modeling.

Research Methods

This section provides insights into how this study analyzed the influence of corporate social responsibility (CSR) on the financial performance of business organizations operating in Nigeria. It shall highlight its methodology associated with this analysis.

Research Design

The study adopted a longitudinal research design appropriate for quantitative analysis for several years and units. Using this study design, it is possible to combine cross-section and time-series data for analysis of CSR and financial performance for several companies at different points in time.

Population of the Study

The population of this study comprises all thirty-four (34) quoted manufacturing firms listed on the Nigerian Exchange Group (NGX) as of 31 December 2023. These firms span major manufacturing subsectors including consumer goods and industrial goods, which are central to Nigeria's industrial and economic development.

Manufacturing firms were selected because they play a pivotal role in employment generation, value addition, infrastructure demand, environmental interaction, and community engagement—making them highly relevant for examining the corporate social responsibility–financial performance nexus.

Sample Size and Sampling Technique

A sample of ten (10) manufacturing firms was selected using stratified quota sampling to ensure representation across the two dominant subsectors: six (6) firms from consumer goods and four (4) firms from industrial goods.

Although the sample size may appear modest relative to the total population, the study compensates for this through a longitudinal panel design covering ten years (2013–2022), generating 100 firm-year observations. In panel data analysis, the number of time observations significantly enhances estimation efficiency and statistical

reliability, particularly when firm-level heterogeneity is explicitly modeled through fixed and random effects techniques.

The selected firms were chosen based on the following criteria:

i.   Continuous listing throughout the study period

ii. Availability of complete and audited financial statements

iii. Consistent disclosure of CSR expenditure

iv. Operational stability without prolonged suspension

This purposive filtering ensures data consistency, reduces survivorship bias, and enhances internal validity.

Moreover, panel regression techniques are particularly suited to moderate cross-sectional samples when time-series depth is sufficient. The combination of cross-sectional and temporal dimensions allows for improved control of unobserved heterogeneity and strengthens causal inference compared to purely cross-sectional studies.

Therefore, while the cross-sectional size is limited, the study maintains methodological rigor through:

Ten-year longitudinal coverage

Panel estimation techniques

Heterogeneity testing (Restricted F-test)

Model selection validation (Hausman test)

This approach prioritizes data quality and internal consistency over sample breadth, thereby ensuring robust inference within the Nigerian manufacturing context.

Model Specification

This study adapted the Ramzan, Amin and Abbas (2020) in which performance (return on asset) is expressed as a function of CSR spending, with control variables (leverage, tangibility, age, and size).

PERF=f(CSR, LEV,TANG, FZ, AGE,)

$$PER_t = a_0 + a_1 CSR_{it} + a_2 LEV_{it} + a_3 TANG_{it} + a_3 FZ_{it} + a_4 AGE_{it} + \mu_i$$

Where:

PERF= Performance (measured as return on asset)

CSR= Corporate social responsibility spending

LEV= Leverage

TANG= asset tangibility

FZ= Firm size

AGE= Firm age

However, this study modified the model by using profit after tax, return on asset and return on equity as measures of financial performance, expressed as a function of CSR spending and control variables. The control variables comprise firm size, firm leverage, firm age, retained earnings and board size. Hence, the model for this study is specified as:

$$FP=f(CSR, LEV, FZ, AGE, BS, RE)$$

$$FP_{it}= \alpha_0+ \alpha_1 CSR_{it}+ \alpha_2 LEV_{it}+ \alpha_3 FZ_{it}+ \alpha_3 AGE_{it}+\alpha_4 BS_{it}+a_5 RE_{it}+\mu_i$$

Where:

PERF= Financial performance (measured by profit after tax, return on asset and return on equity)

CSR= Corporate social responsibility spending

LEV= Leverage

FZ= Firm size

BS= Board size

RE= Retained earnings

Source of Data

Data for this study is derived from secondary sources. Secondary data is retrieved from annual reporting of selected manufacturing companies' financials published for a period of ten years between 2013 to 2022.

Method of Data Analysis

Both descriptive statistics techniques and inferential analysis technique were adopted for this analysis. The technique adopted for descriptive analysis is mean and standard deviations, minimum and maximum scores. On the contrary, correlation and regression analysis techniques have been adopted for inferential analysis techniques for this study. Based on the nature of the data at disposal and the need to treat heterogeneity for business firms, for inferential testing for firm performance and ESG performance impact on firm performance estimates for panel analysis have been adoptedTo ensure robustness of results, the study conducted diagnostic tests including:

- Restricted F-test for cross-sectional heterogeneity

- Hausman specification test for model selection

- Correlation matrix to examine multicollinearity risk

Panel regression estimation techniques were adopted to control for unobserved firm-specific effects. Random-effects estimation was preferred where Hausman tests indicated no systematic difference between fixed and random estimators.

The longitudinal nature of the dataset strengthens statistical power despite the moderate cross-sectional sample, allowing for more reliable inference than single-year cross-sectional analyses commonly used in prior Nigerian CSR studies3.7 Integration of Qualitative CSR Evidence

Although the study primarily adopts a quantitative panel regression approach, qualitative insights were incorporated through structured content analysis of CSR disclosures contained in annual reports of the sampled firms. This complementary approach enables contextual interpretation of CSR expenditure patterns and strategic orientation.

CSR initiatives were categorized into major dimensions including:

Community development programs

Environmental sustainability initiatives

Employee welfare and training

Philanthropic donations

Health and education interventions

By examining narrative disclosures and documented CSR activities, the study captures the qualitative orientation of CSR spending. This integration strengthens interpretation of empirical results by linking financial outcomes to the nature and strategic depth of CSR implementation.

RESULT AND DISCUSSION

This chapter involves result and discussion of findings for empirical analysis of the impact of corporate social responsibility on financial performance of selected manufacturing companies in Nigeria. It involves descriptive statistics and correlation analysis for all the variables used for analysis as well as analysis of panel data to meet the objectives of this study and is followed by discussion of findings.

Descriptive Statistics

Table 4.1: Descriptive Statistics

Variables	Mean	Std. Deviation	Minimum	Maximum
PAT	9.46747	12.01061	-12.578	54.346
ROA	7.33536	8.424358	-15.908	35.349
ROE	20.34496	26.38463	-88.689	88.907
CSR	.23077	.9221086	0	8.441
LEV	1.76164	1.123122	.008	5.269
FZ	1.95341	.4189065	1.058	2.691
AGE	56.1	21.9248	9	100
RE	36.62363	27.54364	0	103.96
BS	10.01	2.97913	4	15

Note: PAT= Profit after tax (billion naira); ROA= Return on Asset (%); Return on Equity (%); CSR= Corporate social responsibility spending (billion naira); LEV= Leverage (ratio); FZ= Firm size (Log of Total Asset); AGE= Firm age (years of establishment); RE= Retained earnings (%); BS= Board size (number of board of directors)

Source: Author;s Computation (2025)

Descriptive statistics showed PAT (profit after tax), ROA (return on assets), and ROE (return on equity) means of ₦9.46 billion, 7.33%, and 20.3% respectively, while standard deviations stood at 12.01, 8.42, and 26.38 for PAT, ROA, and ROE respectively. PAT range was between −₦12.58 billion and 54.35 billion, while the range for ROA and ROE stood at −15.91% to 35.35% and −88.69% to 88.91% respectively. Mean for explanatory variables: CSR = ₦0.23 billion (0.00–8.44 Bn), leverage = 1.76, size = 1.95 (0.008–5.27), age = 56.1 years

Correlation Analysis

Table 4.2: Correlation Matrix

Variables	PAT	ROA	ROE	CSR	LEV	FZ	AGE	RE	
PAT	1.0000								
ROA	0.4909	1.0000							
ROE	0.4852	0.8891	1.0000						
CSR	0.2260	-0.0042	0.0145	1.0000					
LEV	-0.2616	-0.1824	0.0612	-0.1138	1.0000				
FZ	0.6309	-0.1353	-0.0468	0.2868	-0.1376	1.0000			
AGE	-0.2522	-0.2825	0.1564	-0.0234	0.5276	-0.0462	1.0000		
RE	0.5170	-0.0008	-0.0010	-0.0238	0.0312	0.7117	0.2505	1.0000	
BS	-0.4181	-0.2298	-0.1863	0.1460	0.0924	-0.1009	-0.0846	-0.3900	1.0000

Source: Author's Computation (2025)

The result of correlation analysis in table 4.2 revealed that corporate social responsibility, retained earnings and firm size were positive, while leverage, firm age and board size were negative in relation with profit after tax. The findings also indicated that all the independent variables are negatively linked with return on asset and only firm size, retained earnings and board size are negatively connected with return on equity. Result also revealed that there is still low correspondence between the pairs of explanatory variables of the study.

Objective One: examine the effect of Corporate Social Responsibility spending on return on equity of manufacturing firms in Nigeria

Table 4.3: Panel Regression Estimation Results (Model for PAT)

Coefficient	Pooled	Prob	Fixed	Prob	Random	Prob
C	6.103079	0.327	-35.93994	0.052	-1.4567	0.881
CSR	1.960961	0.042	.8648273	0.566	1.203153	0.223
LEV	.010957	0.990	-3.664528	0.072	-1.14296	0.360
FZ	12.54401	0.000	33.52139	0.001	15.6537	0.000
AGE	-.1616471	0.001	-.8870623	0.008	-.1438261	0.073
RE	.0611279	0.245	.0025809	0.985	.0224354	0.713
BS	-1.476508	0.000	-.0921051	0.839	-1.066045	0.024
	R-square= 0.6099 Adj R-square= 0.5847 F-statistics= 24.23 Prob(F-stat)= 0.000		R-square= 0.7260 F-statistics= 12.31 Prob(F-stat)= 0.0000		R-square= 0.5841 Wald chi2(5)= 44.27 Prob> chi2 = 0.0000	
	Restricted F-test= 7.38 (p < 0.05)					
			Hausman Test = 8.13 (p= 0.2287 > 0.05)			

NOTE: * connote significance at 5% level of significance.

Source: Authors' Computation, (2025)

Results of diagnostic tests and regressions are shown in Table 4.3. The Restricted F-test for heterogeneity is significant (F = 7.38, p < 0.05). This is sufficient to deny the null hypothesis of similarity of intercepts between firms, thereby validating cross-sectional heterogeneity among firms of the total sample of manufacturers. This makes the pooled OLS assumption irrelevant because differences between firms are not trivial for making any reliable conclusion. However, the result of the Hausman Test fails to point out any significant disparity between Fix- and Rand-Estimation techniques because χ^2 = 8.13 and p = 0.229.

The pooled OLS findings presented in Table 4.3 emphasize the presence of 1.203 (p=0.223) CSR coefficients, which indicate that for every 1% variation in CSR expenditure, 1.20% increase is witnessed in PAT, which is still not significant. The R^2 value of 0.6099 for this equation indicates that 60.99% variation in PAT is explained by CSR and control variables (stated earlier) unaffected by heterogeneity concerns.

Objective Two: assess the effect of Corporate Social Responsibility spending on return on assets of manufacturing firms in Nigeria

Table 4.4: Panel Regression Estimation Results (Model for ROA)

Coefficient	Pooled	Prob	Fixed	Prob	Random	Prob
C	36.39785	0.000	18.02563	0.063	32.7179	0.005
CSR	1.496285	0.115	.584669	0.215	.6750603	0.456
LEV	-.0870442	0.916	-3.420045	0.000	-2.256462	0.086
FZ	-9.984867	0.003	1.107496	0.812	-7.507865	0.086
AGE	-.156794	0.001	-.6456377	0.033	-.1511996	0.154
RE	.1181645	0.024	.0542798	0.139	.0733911	0.229

BS	-.52761	0.079	.0608099	0.886	-.1101766	0.836
	R-square= 0.5265 Adj R-square= 0.4766 F-statistics= 4.54 Prob(F-stat)= 0.0004		R-square= 0.7242 F-statistics= 12.01 Prob(F-stat)= 0.0000		R-square= 0.5475 Wald chi2(5)= 13.98 Prob> chi2 = 0.0298	
	Restricted F-test= 12.43 (p < 0.05)					
			Hausman Test = 2.98 (p= 0.8118 > 0.05)			

NOTE: * connote significance at 5% level of significance.

Source: Authors' Computation, (2025)

Heterogeneity and Model Selection Tests are provided in Table 4.4. The Restricted F-test (F = 12.43, p < 0.05) further rejects the hypothesis that the intercept values are equivalent for all firms, thus pointing to significant differences among the selected firms in the cross-section. Therefore, this restriction imposed on the pooled OLS no longer holds good. The Hausman Test (χ^2 = 2.93, p = 0.812) further asserts that the variation between these two statistics is non-significant and thus points to the advantage of the random-effects approach adopted in this analysis.

The random-effects result presented in Table 4.4 shows that CSR is 0.675 (p = 0.456), meaning that for every 1% spent on corporate social responsibility activities, it positively affects the return on assets (ROA) by 0.67%, but it is also nonsignificant. The R² for the result shows that 72.42% of its cross-section variation is explained by corporate social responsibility and control factors: size of firm, age of firm, leverage ratio, retained earnings ratio, number of board members.

Objective Three: investigate effect of corporate social responsibility spending on return on equity of manufacturing firms in Nigeria

Table 4.5: Panel Regression Estimation Results (Model for ROE)

Coefficient	Pooled	Prob	Fixed	Prob	Random	Prob
C	68.02087	0.001	-49.68053	0.116	42.33443	0.243
CSR	3.294993	0.297	-49.68053	0.691	.9470797	0.766
LEV	5.847051	0.037	-5.356905	0.108	.4036064	0.926
FZ	-9.653695	0.371	43.24577	0.005	.2178287	0.988
AGE	-.4042364	0.009	-1.730714	0.071	-.3114089	0.317
RE	.0925609	0.593	.0893602	0.467	.0185553	0.928
BS	-2.057069	0.041	1.015327	0.512	-.654718	0.704
	R-square= 0.5198 Adj R-square= 0.4630 F-statistics= 6.11 Prob(F-stat)= 0.0094		R-square= 0.5799 F-statistics= 9.41 Prob(F-stat)= 0.0000		R-square= 0. 5479 Wald chi2(5)= 12.29 Prob> chi2 = 0.0029	
	Restricted F-test= 11.43 (p < 0.05)					
			Hausman Test = 5.30 (p= 0.5056 > 0.05)			

NOTE: * connote significance at 5% level of significance.

Source: Authors' Computation, (2025)

Results of heterogeneity and model tests are presented below in Table 4.5. The result for Restricted F-test (F = 11.43, p < 0.05) rejects the hypothesis of equality among distributional intercepts for firms, thereby confirming significant cross-sectional variation for the selected firms in the manufacture sector. In this particular instance, the pooled OLS hypothesis will thus be rejected. Another hypothesis test conducted was the Hausman test (χ^2 = 5.30, p = 0.506). This provided evidence that among the two hypothesis tests conducted, namely between fixed and random estimator tests, it was most appropriate to adopt the random-effects approach.

The random-effects result presented in Table 4.5 gives a value of 0.947 for CSR with p = 0.766, which implies that for every 1% spent on CSR activities, the percentage ROI changes by 0.94%. However, this result is statistically significant. The goodness of fit for this result is measured by $R^2 = 0.5479$, meaning that 54.79% of ROI is explained by CSR activities and control variables (company size, company age, debt ratio, retained earnings ratio, and board size) without considering heteroscedasticity.

Case-Based Insights on CSR Orientation

Qualitative examination of CSR disclosures from sampled firms reveals that CSR activities are predominantly philanthropic and community-driven rather than strategically integrated into core business operations.

Common CSR initiatives observed include:

1. Educational scholarships
2. Community health outreach programs
3. Road and infrastructure rehabilitation
4. Donations to local communities
5. COVID-19 intervention support

However, limited evidence was found regarding:
1. Structured environmental sustainability programs
2. Innovation-driven CSR investments
3. Long-term measurable CSR performance metrics
4. Clear alignment between CSR objectives and operational strategy

These findings provide context for the statistically insignificant relationship between CSR expenditure and financial performance. The qualitative evidence suggests that CSR spending may be reactive, reputational, or compliance-driven rather than strategically leveraged for competitive advantage.

This reinforces stakeholder theory, which posits that CSR must align with stakeholder value creation to translate into financial performance gains.

Industry-Specific Dimensions of CSR in Manufacturing

Although CSR expenditure was analyzed as an aggregate financial variable, qualitative evidence suggests that the nature and impact of CSR vary significantly across manufacturing subsectors.

In industrial goods firms, CSR activities are predominantly focused on environmental compliance, pollution control, and community infrastructure rehabilitation. Given the environmental footprint of such firms, regulatory and ecological responsibilities are more pronounced. However, environmental compliance expenditures may not translate directly into short-term profitability but rather serve as risk-mitigation mechanisms.

Conversely, consumer goods firms—particularly in food and beverage manufacturing—tend to emphasize consumer welfare, product safety, health campaigns, and brand-oriented community engagement programs. These initiatives may enhance customer loyalty and brand equity, potentially contributing more directly to financial performance.

The insignificant statistical relationship observed in this study may therefore reflect the aggregation of heterogeneous CSR dimensions across subsectors. Industry-specific CSR investments may yield differentiated financial outcomes depending on stakeholder sensitivity, regulatory exposure, and market structure.

This suggests that CSR effectiveness is context-dependent rather than universally uniform across manufacturing industries.

DISCUSSION OF FINDINGS

The result implies that PAT is positively related to the CSR expenditure, which gives a hint that the CSR adds

to the performance or profitability of the company. This implies that spending on CSR does not have additional cost to the manufacturing companies. But to test whether it is significant or not to determine its influence on performance or PAT, result from statistical test showed that it is not significant because being better is not because of CSR but because of success from planning and innovative execution. This finding is in consonance with others gotten by Oboreh and Arukaroha (2021), Eboh and Uzor (2022), Ibe et al. (2022), Azeez et al. (2020), and Efeeloo (2020) but contradicts others gotten by Ben (2024), Sari et al. (2023), and Itoya et al. (2024).

Additionally, CSR expenditure was found to have a weak correlation coefficient with ROA, though not statistically significant. This suggests that while CSR expenditure negatively affects firms, poor corporate strategies and misaligned CSR activities can minimize the influence of CSR expenditure on asset efficiency. The outcomes of this study are consistent with Okafor et al. (2021), Amma (2020), Okolie and Igbini (2020), and Eboh and Uzor (2022). The outcomes of this study contradict Echobu and Echobu (2023), Efeeloo (2020), and Oboreh and Arukaroha (2021).

The insignificant statistical impact of CSR on financial performance may be explained by the qualitative orientation of CSR practices among Nigerian manufacturing firms. Evidence from annual reports indicates that CSR initiatives are largely philanthropic and short-term rather than innovation-driven or efficiency-enhancing.

Finally, based on the analysis, it was shown that for each unit increase in investment in CSR activities, return on equity (ROE) is likely to increase while its coefficient is not significant. This result may depict operational inefficiency and/or reactiveness of CSR projects. This finding is consistent with the result obtained by Ibe et al. (2022), Azeez et al. (2020), Efeeloo (2020), and Oboreh and Arukaroha (2021) but is contradictory to Ben (2024), Sari et al. (2023), Itoya et al. (2024), Echobu and Echobu (2023).This suggests that CSR expenditures, while socially beneficial, may not be sufficiently embedded within corporate strategy to generate measurable financial returns. Therefore, the effectiveness of CSR in improving financial performance depends not only on expenditure magnitude but also on strategic alignment and operational integration.

The findings indicate that CSR expenditure, when treated as a homogeneous financial variable, may obscure important sectoral distinctions. In manufacturing industries with high environmental exposure, CSR may primarily function as compliance and legitimacy insurance, thereby reducing long-term risk rather than increasing immediate profitability. In contrast, consumer-facing manufacturing firms may derive greater reputational and market benefits from CSR investments. This sectoral differentiation provides a plausible explanation for the weak aggregate relationship observed.

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

This study examined the link between corporate social responsibility (CSR) and financial performance of industrial firms in Nigeria.The performance of the company (profitability, use of assets, and return on equities) is still regarded as one of the vital components of sustainable business because it is competitive and contributes to the economy of the nation on the whole.There is also the perception of corporate social responsibility as a strategic tool to enhance company image and attract customers but whether it enhances or improves financial performance is still debatable.

Specifically, the analysis focused on exploring the relationship between CSR expenditure and three proxy measures for financial performance: profit after tax (PAT), return on assets (ROA), and return on equity (ROE). Based on conceptual and theoretical contributions from past empirical and conceptual studies from developed, developing countries, and also for the Nigerian context, the analysis relied on data collected from the financial statements of ten manufacturing firms between 2013 and 2022 to establish that CSR positively but non-significantly affects the measures for performance.

Conclusion

This study examined the relationship between corporate social responsibility (CSR) expenditure and financial performance among quoted Nigerian manufacturing firms over the 2013–2022 period. Using panel regression

techniques, the findings indicate that CSR expenditure exhibits a positive but statistically insignificant relationship with Profit After Tax (PAT), Return on Assets (ROA), and Return on Equity (ROE).

The results suggest that while CSR engagement may contribute to stakeholder legitimacy and reputational enhancement, its financial implications remain marginal within the Nigerian manufacturing context. Qualitative evidence further indicates that CSR initiatives are predominantly philanthropic rather than strategically embedded within operational processes, which may limit their financial impact.

Sectoral comparison reveals that CSR effectiveness may vary across manufacturing subsectors, highlighting the importance of industry-specific alignment.

Overall, the study contributes to the CSR–performance debate by providing evidence from a non-financial sector in a developing economy, emphasizing that CSR's financial benefits depend on strategic integration rather than expenditure magnitude alone.

Recommendations

Based on the findings outlined above, it is recommended that:

i. Sector-Aligned CSR Strategy: Manufacturing firms should align CSR investments with industry-specific stakeholder expectations. Industrial goods firms should prioritize environmental innovation and sustainable production technologies, while consumer goods firms should emphasize product safety, consumer health, and brand-enhancing social initiatives.

ii. CSR Performance Metrics by Industry: Regulatory bodies and corporate boards should encourage the development of sector-specific CSR performance indicators rather than uniform reporting standards.

iii. Strategic Integration: Firms should integrate CSR into core operational processes rather than treating it as peripheral philanthropy, especially in environmentally intensive sub-sectors.

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