DETERMINANTS OF SOCIAL RESPONSIBILITY COSTS OF LISTED MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT: *The study ascertained the determinants of social responsibility costs of listed manufacturing firms in Nigeria. Specifically, the study determined the relationship between firms' total assets and community development cost; total sales and staff development cost; and total equity and public utility cost respectively of listed manufacturing firms in Nigeria. The population of the study comprised all the 21 listed consumer goods manufacturing firms in Nigeria. Purposive sampling was applied in selecting the 15 consumer goods firms that made up the sample size for the study. Secondary data were collected from the annual reports of the sampled firms over a ten-year accounting period which spanned through 2013 to 2022. The Pooled Ordinary Least Square regression was used in testing the hypotheses. The findings of the study indicated that: there is a significant positive relationship between firms' total assets and community development cost of listed manufacturing firms in Nigeria (p-value = 0.0059); there is a significant positive relationship between firms' total sales and staff development cost of listed manufacturing firms in Nigeria (p-value = 0.0000); there is positive but non-significant relationship between firms' total equity and public utility cost of listed manufacturing firms in Nigeria (p-value = 0.7002). Based on the findings, it was generally recommended in the study that firms should prioritise their investment in social responsibility as their financial metrics progress so as to enhance their reputation and strengthen their relationship with their host communities and stakeholders.*

KEYWORDS: Social Responsibility; Costs; Financial Metrics; Firms.

INTRODUCTION

Firms carry out business operations in a social environment. Consequently, the pressure on firms to be socially responsible is growing around the world, especially from stakeholders and growing global interconnectivity (Oboreh & Arokaroho 2021). The practice of corporate social responsibility and other ethical issues is now a global phenomenon. There is a growing need for firms all over the globe to make a conscious effort to give back to their host communities in order to ensure a great deal of harmony.

Corporate social responsibility (CSR) has become a crucial aspect of business in recent times. It is a concept whereby business organisations consider the interest of society by taking responsibility for the impact of their activities on customers, suppliers, employees, shareholders, communities and other shareholders as well as the environment (Ukpabi et al.,2014). CSR is a concept whereby firms improve their environmental and social performance beyond legal obligation. It is a commitment of business to improve the wellbeing of a community through discretionary business practices and contributions of corporate resources (Charkraborty, 2010). It also relates to employee welfare and safety. Corporate social responsibility initiatives enable firms to positively connect with communities at all levels of society. A socially responsible firm should take the necessary measures and adopt practices and programmes that contribute to the welfare of its customers, suppliers, employees, shareholders and communities. Akinbode and Akinbode (2020) noted that while many manufacturing industries in Nigeria had started to invest in CSR activities, there was a need for greater understanding of the factors that influenced firms' CSR investments and the impact of these investments on financial performance.

Corporate social responsibility cost on the other hand can be seen as the expenditure incurred by an entity, firm or company in the process of carrying out social responsibility to its host communities. These costs can include direct expenses such investments in renewable energy, sustainable supply chains, or employee training programs, as well as indirect costs such as reputational damage or legal fees for non-compliance with CSR regulations (Bansal, 2005). The corporate social responsibility can involve considerable investments of resources, time, and money which make companies hesitant to invest in initiatives due to concerns about short-term costs and potential negative impacts on profitability (Scherer & Palazo, 2007).

A firm's ability to engage in any social responsibility concern depends largely on its financial characteristics. A firm's financial characteristics refer to the quantitative metrics that describe its financial health, performance, and position, including revenue, profit margins, earnings per share, return on asset, return on equity, debt-to-equity, cash flow, liquidity. These indicators are used by investors, analysts, and other stakeholders to evaluate a company's overall financial strength and stability (Brigham & Houston, 2017). Most manufacturing firms in Nigeria are driven by the main goal of maximizing profit. In a bid to meet this target they may seek to obtain cheap and underpaid labour, reduced quality in products sold to consumers to minimize cost among other things. Traditionally, companies have to focus on strategies for their business operations and profit such as differentiation, diversification, turnaround, concentration and globalization (Awan & Akhtar, 2014). Overall, the relationship between firms' financial characteristics and its CSR costs is complex and may vary depending on a variety of factors. Understanding these relationships is important as it helps firms make informed decisions about their CSR investments.

Objectives of the Study

The main .objective of the study is to ascertain the determinants of social responsibility costs of listed manufacturing firms in Nigeria. The specific objectives of this study include;

i.   To examine the relationship between total assets and community development cost of listed manufacturing firms in Nigeria.

ii. To determine the relationship between total sales and staff development cost of listed manufacturing firms in Nigeria.

iii. To investigate the relationship between total equity and public utility cost of listed manufacturing firms in Nigeria.

Research Hypotheses

The following null research hypotheses were formulated based on objectives of the study:

i.   There is no significant relationship between total assets and community development cost of listed manufacturing firms in Nigeria.

ii. There is no significant relationship between total sales and staff development cost of listed manufacturing firms in Nigeria.

iii. There is no significant relationship between total equity and public utility cost of listed manufacturing firms in Nigeria.

LITERATURE/THEORETICAL UNDERPINNING

Firm Financial Metrics

Firm financial Metrics as a factor that determines corporate social responsibility costs refer to the aspects of an organization's financial position that are indicative of their income, expenses, and revenues (Giannarakis et al., 2014). These characteristics may include a range of financial metrics such as net worth, cash flow, income statements, and statement of financial position. Financial metrics can be broadly defined as any financial attribute that reflect the financial health, performance, and stability of an individual, group, or organization (Komera & Tiwari, 2022). These metrics may be used to evaluate the financial position of an entity or to compare different entities within a particular industry or sector (Ali & Isa, 2018).

Financial metrics are a key element in understanding an individual or organization's financial situation. They provide insight into an entity's financial performance and position, enabling effective financial management and decision-making (Jeroh, 2020). Financial metrics can also be used to compare and benchmark the financial health of different entities within a particular industry or sector, providing valuable insights into the competitive landscape. It can be broadly categorized into two main categories: financial performance metrics and financial position metrics. Financial performance metrics measure an entity's ability to generate revenue and profitability, while financial position metrics measure an entity's ability to manage its assets, liabilities and equity.

For businesses and organizations, financial metrics may include revenue generated from sales, investments, and other sources, as well as expenses related to production, operations, and organisational costs. Business financial characteristics also often include statement of financial position information such as assets, liabilities, and equity, as well as cash flow statements and income statements (Giannarakis et al., 2014). Understanding financial metrics is essential for effective financial management and planning. By analyzing financial metrics, organizations can make informed decisions about budgeting, investing, borrowing, and other financial activities, with the ultimate goal of achieving financial stability, growth and business sustainability.

Firm Total Assets

The total assets of a firm refer to the sum of all the economic resources owned by the firm, including tangible and intangible assets that can be used to generate revenue. The total assets of a firm are a key financial metric that provides insight into the size and financial strength of the organization (Nguyen et al., 2021). Total assets represent all of the economic resources owned by the firm, including both tangible and intangible assets. The total assets of a firm are calculated by adding up the value of all its tangible and intangible assets. This information is typically reported on the firm's statement of financial position, which provides a snapshot of the firm's financial position at a particular point in time. The statement of financial position is divided into two main sections: assets and liabilities. The total assets are listed at the top of the statement of financial position, followed by the liabilities and shareholders' equity.

Changes in a firm's total assets over time can provide insight into its growth and investment strategies. For example, if a firm has been steadily increasing its total assets over time, it may be investing in new assets, expanding its operations, or acquiring other companies. A firm's total assets provide a measure of the firm's size and financial strength, which can be used to compare it to other firms in the same industry or sector (Rouf & Abdur, 2011). A decline in total assets may indicate that the firm is divesting assets, downsizing, or facing financial challenges. Thus, total assets are a key financial metric that provides insight into a firm's size, financial strength, liquidity, and solvency (Onyali et al., 2020). By understanding a firm's total assets, management make informed decisions about corporate strategy and business sustainability, investors, creditors, and other stakeholders can make informed decisions about whether to invest in or lend funds to firms.

Firm Total Sales

Firm total sales refer to the total revenue earned by a company from the sale of its products or services during a particular period, before any expenses or deductions are taken into account (Gu, 2021). Total sales is a key financial metric that provides insight into a company's ability to generate revenue from its core business activities (Sullivan et al., 2012). It represents the total amount of money earned by the company from the sale of its products or services during a particular period, before any expenses or deductions are taken into account (Waheed & Yang, 2019). Total sales can be reported on a daily, weekly, monthly, quarterly, or annual basis, depending on the company's reporting requirements (Gu, 2021).

Total sales of firm simply refer to the total amount of revenue generated by a company from the sale of its products or services over a specific period, before any deductions or expenses are taken into account (Sullivan, Peterson & Krishnan, 2012). They represent the gross revenue

generated by a company from its core business activities, including the sale of products or services, licenses, and other sources of income. Firm total sales are a financial metric that represents the top line of a company's income statement and provides insight into the company's revenue-generating ability (Waheed & Yang, 2019). They are the total amount of money that a company earns from selling its products or services to customers, clients, or other businesses over a particular period.

Total sales are a critical input in financial statements such as the income statement, which provides a summary of a company's financial performance over a specific period (Sullivan, Peterson & Krishnan, 2012). Total sales are typically reported as the top line of the income statement, followed by the cost of goods sold and other expenses (Waheed & Yang, 2019). The difference between total sales and the cost of goods sold is known as gross profit, which represents the profit earned before deducting operating expenses. Thus, total sales are a key financial metric that provides insight into a company's revenue-generating ability and financial performance.

Firm Total Equity

Firm total equity, also known as shareholder's equity or net worth, is the residual interest in the assets of a company after all liabilities are deducted. In other words, it is the amount of money that would be returned to shareholders if all of the company's assets were sold and all of its debts were paid off (Kim & Olbert, 2022). Total equity includes both the value of the company's assets that were purchased with shareholders' investments and any profits that have been retained in the company rather than paid out as dividends. It is an important financial characteristic used by investors, creditors, and other stakeholders to assess the financial strength and stability of a company (Jacobs et al., 2023).

Firm total equity is a key financial metric used to evaluate the financial health and stability of a company. It represents the net value of a company and provides insight into the company's financial position. The equity of a company is calculated by subtracting the total liabilities from the total assets of the company. This calculation determines the residual interest or net worth of the company that belongs to the shareholders. Firm total equity includes all of the company's assets, such as property, inventory, cash, and investments that were purchased using shareholders' investments (Kim & Olbert, 2022). It also includes any profits that have been retained in the company rather than paid out as dividends to shareholders. This is why it is also referred to as shareholders' equity, as it represents the amount of the company's assets that belong to the shareholders.

Investors and other stakeholders use firm total equity as an important indicator of a company's financial strength and stability. A higher equity value typically indicates a stronger financial position and a lower risk of bankruptcy or insolvency. In contrast, a company with low equity levels may be more vulnerable to financial difficulties or even bankruptcy. Thus, firm total equity is a critical financial metric that provides valuable insight into the financial health of a company (Kim & Olbert, 2022). It is important to management for making informed decisions about business sustainability strategies and to investors, creditors, and other stakeholders for making informed investments and other financial decisions.

Corporate Social Responsibility

Corporate Social Responsibility (CSR) refers to a company's commitment to operating in an ethical and sustainable manner by considering the social and environmental impacts of its operations (Ali & Isa, 2018). CSR involves taking responsibility for the company's impact on society and the environment beyond what is legally required, and going above and beyond to create a positive impact on the world (Jeroh, 2020). CSR can take many different forms, including efforts to reduce a company's carbon footprint, improve working conditions for employees, invest in local communities (Onyali et al., 2020), promote diversity and inclusion, and support charitable causes. Companies may also adopt responsible and sustainable business practices, such as using renewable energy sources or reducing waste (Nguyen et al., 2021).

Corporate Social Responsibility is a concept that has gained significant attention in recent years as companies increasingly recognize the importance of operating in a sustainable and ethical manner (Isa & Muhammad, 2015). It is rooted in the idea that businesses have a responsibility to consider the impact of their operations on society and the environment, and to take proactive steps to address any negative effects (Rouf & Abdur, 2011).

CSR encompasses a wide range of activities and initiatives, including efforts to reduce a company's carbon footprint, improve working conditions for employees, promote diversity and inclusion, support local communities, and invest in charitable causes (Ali & Isa, 2018). Companies may also adopt responsible and sustainable business practices, such as using renewable energy sources, reducing waste, or implementing environmentally friendly manufacturing processes. The motivations behind CSR can vary, but often include a desire to build stronger relationships with customers, employees, and other stakeholders by demonstrating a commitment to social and environmental responsibility (Jeroh, 2020). CSR can also help companies mitigate risk by addressing potential negative impacts of their operations before they become significant issues (Onyali et al., 2020).

In addition to its ethical and social benefits, CSR can also have a positive impact on a company's financial performance (Newstyle, 2022). Research has shown that companies with strong CSR practices tend to have higher employee morale, better customer satisfaction, and greater long-term profitability than those that do not prioritize CSR (Nguyen et al., 2021). CSR is becoming an increasingly important consideration for companies around the world, as consumers and stakeholders demand more accountability from businesses (Barakat et al., 2015). Adopting CSR practices can help companies build stronger relationships with customers (Li et al., 2013), employees, and the communities they serve, as well as improve their reputation and bottom line over the long term.

Community Development Cost (CDC)

Community Development Cost (CDC) is a social responsibility cost that refers to the expenses associated with the development of a community, such as the cost of building infrastructure, providing public services, and improving community amenities (Salehi et al., 2019). CDC can include a wide range of costs, such as construction, land acquisition, equipment, labor, and materials.

The goal of CDC is to enhance the quality of life for individuals and families in a community by investing in its physical and social infrastructure (Bugaje et al., 2022). This can involve the creation of affordable housing, the provision of public transportation, the development of parks

and recreational facilities, and the implementation of community programs that promote health and well-being. CDC is often funded through corporate donations (Ali & Isa, 2018), grants, loans, and other forms of financing. It is typically carried out by a range of stakeholders, including government agencies, non-profit organizations, firms, community groups, and private developers. The success of CDC initiatives is often measured in terms of their impact on the community, such as improved health outcomes, increased economic opportunities, and greater social cohesion.

Staff Development Cost (SDC)

Staff Development Cost (SDC) is a term that refers to the social responsibility costs associated with training and developing employees in an organization. SDC may include the cost of providing training programs, workshops, seminars, conferences, coaching, mentoring, and other forms of professional development opportunities to employees (Salehi et al., 2019). The goal of SDC is to enhance the skills, knowledge, and competencies of employees, thereby improving their job performance, productivity, and job satisfaction (Barakat et al., 2015). SDC can also help to reduce employee turnover and increase retention rates, as employees are more likely to stay with an organization that invests in their development.

SDC may be funded through a variety of sources, including the organization's budget, grants, and partnerships with external training providers. SDC is typically carried out by the human resources department, with input and support from other departments (Barakat et al,. 2015). The success of SDC initiatives is often measured by the extent to which employees demonstrate improved performance, increased productivity, and enhanced job satisfaction, as well as the organization's ability to attract and retain talented employees (Salehi et al., 2019).

Public Utility Cost (PUC)

Public Utility Cost (PUC) of firms refers to the social responsibility costs incurred by firms for making use of essential public services, such as electricity, gas, water, and telecommunications. The PUC of firms includes the cost of building and maintaining utility infrastructure, such as power plants, transmission lines, pipelines, and communication networks, as well as the cost of customer service and billing. These costs can be substantial, as utility infrastructure is often expensive to build and maintain, and customer service requires a significant amount of resources.

Public utility costs are expenses that firms must pay in order to use basic public services that are essential for their operations. These services are usually provided by government-regulated entities or private companies that have been granted a monopoly over the provision of these services. The prices of public utilities are typically regulated by government agencies to ensure that they are reasonable and affordable for consumers. However, the cost of public utilities can still vary depending on factors such as usage levels, location, and the type of business being operated. Thus, public utility costs are a necessary expense for firms, as they cannot operate without access to these essential services.

Theoretical and Research Framework

This study is anchored on the stakeholder theory. This theory propounded by R. Edward Freeman in 1984, is an important theoretical framework that underscores the significance of considering the interests and concerns of all stakeholders in business decision-making. It

encourages a holistic approach to corporate governance, ethics, and corporate social responsibility, emphasizing that a firm's success and sustainability are inherently linked to its relationships with diverse stakeholders (Dmytrieyev, Freeman & Horisch 2021). Stakeholder theory reflects the evolving expectations of the business community and society at large, as it recognizes that businesses have a broader role to play in promoting ethical and sustainable practices. This theory was adopted for the study because ownership structure may determine the company's priorities, strategies, and commitment to social responsibility (Swandari & Sadikin 2016), ultimately shaping its impact on society and the environment.

Based on the formulated hypotheses and theoretical background, the research framework for this study is conceptualized and presented in Figure 1.
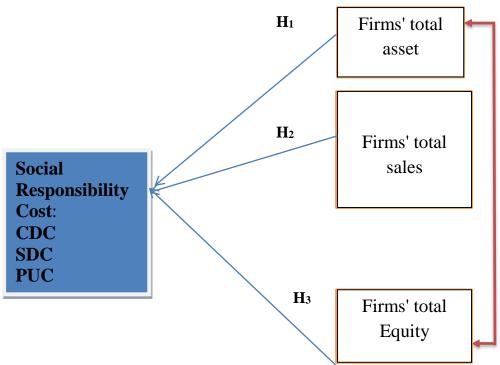

Figure 1:   Research Framework

Source: Authors' Conceptualization

Empirical Studies

Alkayed and Omar (2022) examined the determinants of the extent and quality of corporate social responsibility disclosure (CSRD) in Jordan. The study sample includes 118 Jordanian companies, and the researchers use a quantitative approach and content analysis technique to measure the extent and quality of CSR disclosure from annual reports. The study found that the extent of CSRD is higher than the quality of CSRD in Jordan. The study also reveals that there are several factors that influence the extent and quality of CSRD, including corporate characteristics, corporate governance, and ownership structure.

Nguyen, Vu, Nguyen and Le (2021) investigates the impact of company size, industry sensitivity, government ownership, liquidity, and company age on Corporate Social Responsibility Disclosure (CSRD) in the 2019 annual reports of listed companies on the Vietnam stock market. Additionally, the study examines the relationship between CSRD and the financial performance of the listed companies, as measured by return on assets (ROA) and return on equity (ROE). The researchers use descriptive statistics and regression methods to test their research hypotheses. The study's empirical findings suggest that several company characteristics, including firm size, liquidity, government ownership, and environmental industry sensitivity, are positively associated with firms' CSRD level.

Jeroh (2020) explored the effect of firms' attributes on corporate social responsibility (CSR) disclosure, of firms in Nigeria. The study used secondary data from the financial reports of 29 listed Nigerian firms in the financial service sector over a 10-year period (2009-2018) and employed the structural equation modeling (SEM) technique for estimation. The study found that measures of firm performance, firm value, and capital structure significantly influence CSR disclosure, whereas ownership structure and board attributes do not.

Okezie and Ihendinihu (2019) aimed to investigate the determinants of corporate social responsibility (CSR) disclosure practices of listed firms in Nigeria. The study collected data covering the period of 2010-2017 from the annual reports and accounts of 16 listed firms on the Nigerian stock exchange market. The study employed the Ordinary Least Square Panel regression estimator, considering the cross-sectional and time-series nature of the data. The study found that board independence, financial leverage, and age were positively related to CSR disclosure, while profitability exhibited a negative relationship with CSR disclosure.

Hermawan and Gunardi (2019) conducted a study to determine the factors that influence corporate social responsibility disclosure (CSR disclosure) in banking firms listed on the Indonesian Stock Exchange between 2010-2014. The study examined the effect of company size, profitability, leverage, public ownership, board of commissioner, independent commissioner, and the size of the audit committee on CSR disclosure. The data used in the study were extracted from audited financial reports and sustainability reports (if available). The study used quantitative analysis with secondary data and multiple regression analysis was performed. The results showed that profitability, public ownership, board of commissioners, and independent commissioners have a positive impact on corporate social responsibility disclosure, while leverage and audit committee have a negative impact. However, there was no significant evidence to suggest that the size of the company affects its willingness to disclose corporate social responsibility activities.

Alodia and Atmadja (2018) examined the effect of firm-specific characteristics on Corporate Social Responsibility (CSR) performance in the mining sector companies listed on the Indonesia Stock Exchange between 2008 and 2017. The study used Ordinary Least Square (OLS) regression with panel data to analyze the data. The study found that profitability, size, board size, board independence, and women of board were not related to CSR performance in mining companies. However, leverage and audit committees had a significant effect on CSR performance in mining companies.

Ganewatta and Priyadarshanie (2017) examined the influence of firm characteristics on the level of corporate social responsibility (CSR) disclosures in annual reports of listed banking companies in Colombo Stock Exchange. Disclosure of CSR was measured in terms of CSR

disclosures quantified via Global Reporting Initiative (GRI) guidelines (G4). Data was gathered for four years from 2011 to 2014 from 11 commercial banks listed in Colombo Stock Exchange (CSE). Firm size, profitability, age and revenue were taken as the firm characteristics which are the independent variables in the study. The explanatory variables firm size, profitability, revenue and age of the companies are insignificant factors for determining the level of CSR disclosures.

Abubakar (2016) aimed to investigate the relationship between firm attributes, board characteristics, and corporate social responsibility (CSR) in listed deposit money banks in Nigeria. The study used panel data extracted from the annual reports and accounts of thirteen sampled banks out of sixteen listed deposit money banks in the Nigerian Stock Exchange for a period of eight years (2006-2013) using convenience sampling technique. The study adopted both historical and descriptive methods in collecting data, while the Generalized Least Squares (GLS) multiple regression was employed as a technique of data analysis. The study found that firm profitability had an insignificant positive impact on the CSR of listed deposit money banks in Nigeria. However, firm size, independent directors, and female directors were found to have significant positive influence on CSR, while liquidity was found to have a significant negative effect on CSR.

METHODOLOGY

Research Design

The study adopts correlational research design to examine the relationship between firms' financial metrics as a determinant for corporate social responsibility costs. The choice of a correlational design is justified by the fact that it allows for the identification of patterns and associations between variables, without necessarily implying causality. This is particularly relevant in the context of this study, as it is important to understand whether there is a relationship between firms' financial metrics and CSR costs.

Population and Sample Size of the Study

The study's target population comprised the entirety of consumer goods manufacturing firms that hold listings in Nigeria Exchange Group. As at 31st December 2023, the consumer goods sector of the Nigerian Exchange Group has a total of 21 firms. However, Purposive sampling technique was used to select the sample participants. The selection of a purposive sampling technique allows the researcher to choose a sample that is most appropriate for the study and meet the required criteria. Hence, fifteen (15) firms out of the 21 listed consumer goods firms in Nigeria were selected as the sample of the study. The firms were selected based on their availability of data and on the attainment of at least 10 consecutive years of listing on the Nigerian Exchange Group.

Method of Data Collection and Analysis

The data for the study were collected from secondary sources through the use of the published annual reports and accounts of the fifteen sampled consumer goods manufacturing firms in Nigeria for a period of ten (10) years: (2013 – 2022). Secondary data were used in this present study because of their objectivity and the quantitative nature of the study.

In this study, descriptive analytical tools such as mean, standard deviation and range values were utilized in summarizing the data collected for each of the variables. To determine the relationship between the independent and dependent variables, the econometric method of Pooled Ordinary Least Square regression was used. The statistical analyses were performed using the E-views Version 10 statistical software. The hypotheses test was performed with a significance level of 5%. The decision rule applied is that the null hypothesis (H0) is accepted if the P-value is higher than 0.05, while the null hypothesis is rejected if the P-value is lower than 0.05.

Model Specification and Variables Operationalization

For the pooled OLS regression, the linear models tested are as stated below:

In the mathematical model that represents the expected relationship between financial metrics and corporate social responsibility costs, the function is expressed as CDC, SDC, and PUC = f(FTA, FTS, FTE,......)..............equ. (i)

Where:

$CDC_{it} = \beta_0 + \beta_1 FTA_{it} + \mu_{it}$ ---eq 1 for H_{01}

$SDC_{it} = \beta_0 + \beta_1 FTS_{it} + \mu_{it}$ ---eq 2 for H_{02}

$PUC_{it} = \beta_0 + \beta_1 FTE_{it} + \mu_{it}$ ---eq 3 for H_{03}

Where:

CDC = Community Development Cost

SDC = Staff Development Cost

PUC = Public Utility Cost

FTA = Firm total assets

FTS = Firm Total Sales

FTE = Firm Total Equity

it = firm and year identifiers

β_0 = Constant

β_1 = Regression coefficient

μ = Error term

Table 1: Variable Description and Measurements

Variable	Measurement
Community Development Costs	Total Donation Costs
Staff Development Costs	Total Costs of Staff Training

Public Utility Costs	Total Costs of Energy and Utilities
Firm Total Sales	Revenue earned in the year
Firm Total Assets	Aggregate of firm assets
Firm Total Equity	Aggregate of Shareholders Funds

Source: Researcher's Compilation (2024)

DATA ANALYSIS AND DISCUSSION OF RESULTS

Table 2: Presentation of Descriptive Statistics

	CDC	SDC	PUC	FTA	FTS	FTE
Mean	1320682.	253105.6	600254.2	122686873	112448138	46180889
Median	11741.50	0.000000	13740.50	64073058	58634640	23458807
Maximum	183441984	2558398	7285472	621318254	832810561	180879079
Minimum	0.000000	0.000000	0.000000	57287.00	0.000000	-2236263.
Std. Dev.	14973616	578771.6	1183484.	139267655	136966866	52930205
Skewness	12.11567	2.464023	2.737045	1.349677	1.977105	1.211371
Kurtosis	147.8615	7.891954	11.92677	3.994887	8.032483	3.281953
Jarque-Bera	134825.1	301.3553	685.3307	51.72693	256.0104	37.18234
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	1.98E+08	37965845	90038128	1.84E+10	1.69E+10	6.93E+09
Sum Sq. Dev.	3.34E+16	4.99E+13	2.09E+14	2.89E+18	2.80E+18	4.17E+17
Observations	150	150	150	150	150	150

Source: Eviews 10 Output (2024)

Table 2 provides descriptive statistics for the variables used in this study.

The mean value for CDC is ₦1,320,682, which suggests that on average, listed manufacturing firms on the Nigerian Exchange Group spent ₦1,320,682 on community development. The maximum value for CDC is very high at ₦183,441,984 Naira, indicating that some firms may have invested significantly more in community development activities. The minimum value for CDC is 0, indicating that some firms did not incur any cost in this area. The standard deviation for CDC is very high at ₦14,973,616, indicating that there is a significant variation in the community development costs incurred by the listed manufacturing firms on the Nigerian Exchange Group.

The mean value for SDC is ₦253,105.6, indicating that listed manufacturing firms on the Nigerian Exchange Group spent an average of ₦253,105.6 on staff development activities. The maximum value for SDC is ₦2,558,398, indicating that some firms invested significantly more in staff development activities. The minimum value for SDC is 0, indicating that some firms did not incur any cost in this area. The standard deviation for SDC is relatively low at ₦578,771.6, indicating that there is less variation in the staff development costs incurred by the firms.

The mean value for PUC is ₦600,254.2, indicating that listed manufacturing firms on the Nigerian Exchange Group spent an average of ₦600,254.2 on public utility activities. The maximum value for PUC is ₦7,285,472, indicating that some firms invested significantly more in public utility activities. The minimum value for PUC is 0, indicating that some firms did not

incur any cost in this area. The standard deviation for PUC is moderate at ₦1,183,484, indicating that there is some variation in the public utility costs incurred by the firms.

For FTA, the mean is ₦122,686,873, indicating that the average total assets of the listed manufacturing firms over the 10-year period is about ₦122 billion. The minimum total assets value is ₦57,287, indicating that some firms have very low total assets, while the maximum total assets value is ₦621,318,254, indicating that some firms have very high total assets. The standard deviation of FTA is ₦139,267,655, suggesting that the total assets of the listed manufacturing firms vary widely over the 10-year period. The skewness of FTA is 1.349677, indicating that the distribution of total assets is skewed to the right. The kurtosis value of FTA is 3.994887, indicating a distribution that is more peaked and heavy-tailed than a normal distribution. The Jarque-Bera test statistic for FTA is 51.72693, with a probability of 0.000000, indicating that the distribution of total assets is significantly non-normal.

For FTS, the mean is ₦112,448,138, indicating that the average total sales revenue of the listed manufacturing firms over the 10-year period is about ₦112 billion. The minimum total sales revenue value is ₦0.00, indicating that some firms had no sales revenue during the 10-year period, while the maximum total sales revenue value is ₦832,810,561, indicating that some firms had very high sales revenues. The standard deviation of FTS is ₦136,966,866, suggesting that the total sales revenue of the listed manufacturing firms varied widely over the 10-year period. The skewness of FTS is 1.977105, indicating that the distribution of total sales revenue is skewed to the right. The kurtosis value of FTS is 8.032483, indicating a distribution that is highly peaked and heavy-tailed. The Jarque-Bera test statistic for FTS is 256.0104, with a probability of 0.000000, indicating that the distribution of total sales revenue is significantly non-normal.

For FTE, the mean is ₦46,180,889, indicating that the average total equity of the listed manufacturing firms over the 10-year period is about ₦46 billion. The minimum total equity value is -₦2,236,263.00, indicating that some firms had negative equity, while the maximum total equity value is ₦180,879,079, indicating that some firms had very high equity. The standard deviation of FTE is ₦52,930,205, suggesting that the total equity of the listed manufacturing firms varied widely over the 10-year period. The skewness of FTE is 1.211371, indicating that the distribution of total equity is skewed to the right. The kurtosis value of FTE is 3.281953, indicating a distribution that is more peaked and heavy-tailed than a normal distribution. The Jarque-Bera test statistic for FTE is 37.18234, with a probability of 0.000000, indicating that the distribution of total equity is significantly non-normal.

The skewness values for all the variables are positive, indicating that the distribution of the data is skewed to the right. The kurtosis values are also very high for all the variables, indicating that the distribution is heavily tailed and has a high peak. The Jarque-Bera tests for all the variables show that the distribution is not normal, with a probability value of 0.0000 for all the variables. This suggests that the data is not normally distributed.

RESULTS AND DISCUSSIONS

Test of Hypotheses

To determine the relationship between independent and dependent variables, the econometric method used was Pooled Ordinary Least Square regression. The statistical analyses were performed using the Eviews Version 10 statistical software.

Test of Hypothesis I

H_{01}: There is no significant relationship between total assets and community development costs of listed manufacturing firms in Nigeria.

Table 3: Test of Hypothesis I

Dependent Variable: CDC
Method: Least Squares Regression
Date: 07/28/24   Time: 00:16
Sample: 2013 – 2022
Periods included: 10
Total Observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FTA	0.024085	0.008613	2.796294	0.0059
C	-1634245.	1595616.	-1.024209	0.3074

R-squared	0.050182	Mean dependent var		1320682.
Adjusted R-squared	0.043764	S.D. dependent var		14973616
S.E. of regression	14642298	Akaike info criterion		35.84997
Sum squared resid	3.17E+16	Schwarz criterion		35.89011
Log likelihood	-2686.748	Hannan-Quinn criter.		35.86628
F-statistic	7.819260	Durbin-Watson stat		1.969909
Prob(F-statistic)	0.005856			

Source: *Analysis Output from Eviews Version 10*

Table 3 shows the results of the statistical analysis on the relationship between firms' total assets and community development costs. The R-squared value of 0.050182 indicates that about 5% of the variation in community development costs can be explained by variations in total assets. The F-statistic of 7.819260 and its associated probability of 0.005856 suggest that the overall regression model is statistically significant. The coefficient for FTA (firm total assets) is 0.024085. This indicates that for each unit increase in total assets, there is a 0.024085 unit increase in community development costs.

Decision: The p-value for this relationship is 0.0059, which is below 0.05. This indicates that the null hypothesis is rejected while the alternate hypothesis is accepted. In conclusion, there

is a significant positive relationship between total assets and community development costs of listed manufacturing firms in Nigeria (p-value = 0.0059).

Test of Hypothesis II

H_{02}: There is no significant relationship between total sales and staff development costs of listed manufacturing firms in Nigeria.

Table 4: Test of Hypothesis II

Dependent Variable: SDC
Method: Least Squares Regression
Date: 07/28/24   Time: 00:20
Sample: 2013 – 2022
Periods included: 10
Total Observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FTS	0.002379	0.000287	8.287543	0.0000
C	-14414.82	50770.14	-0.283923	0.7769

R-squared	0.316976	Mean dependent var		253105.6
Adjusted R-squared	0.312361	S.D. dependent var		578771.6
S.E. of regression	479940.7	Akaike info criterion		29.01396
Sum squared resid	3.41E+13	Schwarz criterion		29.05410
Log likelihood	-2174.047	Hannan-Quinn criter.		29.03026
F-statistic	68.68337	Durbin-Watson stat		0.238081
Prob(F-statistic)	0.000000			

Source: *Analysis Output from Eviews Version 10*

Table 4 shows the results of the regression analysis between total sales and staff development costs of listed manufacturing firms in Nigeria. The R-squared value of 0.316976 indicates that 31.70% of the variation in staff development cost can be explained by the variation in firm total sales. The adjusted R-squared value of 0.312361 suggests that the model is a good fit for the data, and the F-statistic of 68.68337 with a p-value of 0.000000 also supports this. The coefficient of 0.002379 indicates that there is a positive relationship between firm total sales and staff development cost, which means that as firms' total sales increase, staff development costs also tends to increase.

Decision: The p-value of 0.0000 is less than the significance level of 0.05, indicating that the relationship between firm total sales and staff development costs is statistically significant. This indicates that the null hypothesis is rejected while the alternate hypothesis is accepted. In conclusion, there is significant positive relationship between total sales and staff development costs of listed manufacturing firms in Nigeria (p-value = 0.0000).

Test of Hypothesis III

H$_{03}$: There is no significant relationship between total equity and public utility cost of listed manufacturing firms in Nigeria.

Table 5: Test of Hypothesis III

Dependent Variable: PUC
Method: Least Squares Regression
Date: 07/28/24   Time: 00:30
Sample: 2013 – 2022
Periods included: 10
Total Observations: 150

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FTE	0.000709	0.001837	0.385732	0.7002
C	567530.8	128794.8	4.406475	0.0000

R-squared	0.001004	Mean dependent var		600254.2
Adjusted R-squared	-0.005746	S.D. dependent var		1183484.
S.E. of regression	1186879.	Akaike info criterion		30.82480
Sum squared resid	2.08E+14	Schwarz criterion		30.86494
Log likelihood	-2309.860	Hannan-Quinn criter.		30.84110
F-statistic	0.148789	Durbin-Watson stat		0.455044
Prob(F-statistic)	0.700249			

Source: *Analysis Output from Eviews Version 10*

Table 5 shows the results of the regression analysis between total equity and public utility cost of listed manufacturing firms in Nigeria. The R-squared value is 0.001004, which means that less than 1% of the variation in public utility cost can be explained by the variation in total equity. The F-statistic is 0.148789, which is low and also supports the conclusion that the relationship between a firms' total equity and public utility cost is not statistically significant since Prob(F-statistic) = 0.700249 is greater than 0.05.

The regression coefficient for Firm Total Equity is 0.000709, which indicates that there is a positive relationship between a firm's total equity and its public utility cost. That is, an increase in FTE by a unit will increase PUC by 0.000709.

Decision: The p-value of 0.7002 is greater than 0.05, indicating that this relationship is not statistically significant. Thus, the alternate hypothesis is rejected while the null hypothesis is accepted. In conclusion, there is positive but non-significant relationship between total equity and public utility cost of listed manufacturing firms in Nigeria (*p*-value = 0.7002).

DISCUSSION OF FINDINGS

The study found that there is a significant positive relationship between total assets and community development costs of listed manufacturing firms in Nigeria. This suggests that firms with higher total assets tend to spend more on community development as part of their corporate social responsibility initiatives. This could be due to a number of factors, including greater resources to allocate to social programs and initiatives, greater visibility and reputation to maintain through CSR activities, and greater pressure from stakeholders to contribute to the community. The studies conducted by Alkayed and Omar (2022); Nguyen, Vu, Nguyen and Le (2021); Salehi, Tarighi, and Rezanezhad (2019); Amakor and Eneh (2019) are in agreement with this result whereas the study by Hermawan and Gunardi (2019) disagreed with the present result.

Secondly, it was found that there is a significant positive relationship between total sales and staff development cost of listed manufacturing firms in Nigeria. This suggests that firms with higher sales tend to invest more in their employees through training and development programs. This could be due to the fact that firms with higher sales tend to have more resources to allocate to employee development initiatives, and may also have a greater need to retain skilled employees in order to maintain their competitive edge. Investing in employee development is a way for firms to demonstrate their commitment to their workforce and to foster a positive organizational culture. Jeroh (2020); Ramadhani and Agustina (2019) realised similar results. However, Ganewatta and Priyadarshanie (2017) argued in their finding that firm revenue does not significantly drive CSR initiatives of firms.

The findings of this study equally showed that there is a positive but non-significant relationship between total equity and public utility cost of listed manufacturing firms in Nigeria. This suggests that firms with higher equity tend to spend more on public utility costs as part of their CSR initiatives, but the relationship is not strong enough to be statistically significant. This could be due to a number of factors, including differences in industry norms and expectations, variations in the types of public utilities that firms are investing in, or differences in the financial structures of firms that make equity a less significant factor in determining CSR expenditures. This finding corroborates the results by Siriwatpatara (2018) which equally realised a positive relationship between registered capital and CSR involvement.

CONCLUSION AND IMPLICATION OF RESEARCH

Corporate social responsibility (CSR) has become a crucial aspect of the business world in recent times, as firms have recognized the importance of sustainable business practices in contributing to long-term success. CSR involves the integration of social and environmental concerns into a company's operations and interactions with stakeholders. This has resulted in a growing body of literature on firms' CSR activities. The aim of this study was to investigate the determinants of CSR costs of listed manufacturing firms in Nigeria. The general finding showed that investment in CSR is positively determined by firms' financial metrics.

The positive relationship between the total assets of listed manufacturing firms and their community development costs indicates that larger firms have more resources to allocate towards corporate social responsibility initiatives, such as community development projects.

These projects can include investments in education, healthcare, infrastructure, and environmental sustainability. By investing in these areas, firms can help to improve the living standards of local communities, which in turn can create a more stable and supportive environment for their operations. The positive relationship between the total sales of listed manufacturing firms and their staff development costs suggests that firms with higher revenues recognize the importance of investing in their employees. Staff development programs can include training, mentoring, and professional development opportunities, which can improve employee skills, increase job satisfaction, and enhance productivity. By investing in their staff, firms can improve their competitiveness and ultimately contribute to the development of the wider economy.

The positive relationship between the total equity of listed manufacturing firms and their public utility costs indicates that firms with greater financial resources are more likely to invest in public utility projects. These projects can include investments in water and electricity infrastructure, which can have a significant impact on the lives of local residents. By investing in public utilities, firms can help to create a more stable and supportive environment for their operations, while also contributing to the development of the wider community.

Based on the findings, the following recommendations were made:

1.	Firms should prioritize investment in their total assets in order to improve their corporate social responsibility in community development. This can be done by allocating resources towards community development projects such as schools, healthcare facilities, and other social infrastructure that will benefit the communities in which they operate. By doing so, firms can enhance their reputation and strengthen their relationship with the local communities.

2.	Firms should continue to invest in their staff development as there is a significant positive relationship between total sales and staff development cost. This can be achieved by offering training and development opportunities, promoting a positive work culture, and recognizing employee contributions. By investing in their employees, firms can enhance productivity, creativity, and innovation, which can lead to increased sales and profitability.

3.	While the positive relationship between total equity and public utility cost is not significant, firms should still prioritize investment in public utilities such as water, electricity, and other infrastructure that will benefit the communities in which they operate. This can be done by partnering with local government authorities, NGOs and other stakeholders to develop and implement sustainable and socially responsible projects. By doing so, firms can demonstrate their commitment to social responsibility and enhance their reputation among stakeholders.

SUGGESTIONS FOR FUTURE RESEARCH

To overcome the limitations of this study, further research can be conducted using a broader range of industries to increase the generalizability of the findings. This would involve studying firms in different industries such as banking, telecommunications, and agriculture, among others, to understand the relationship between financial characteristics and corporate social responsibility across different industries.

In addition, further research can also explore additional financial characteristics and corporate social responsibility measures to get a more comprehensive understanding of the relationship between financial characteristics and corporate social responsibility. This would involve incorporating measures such as profitability, innovation, environmental sustainability, and other dimensions of corporate social responsibility such as employee welfare, consumer protection, and ethical business practices.

Furthermore, future studies could extend the period of study beyond 10 years to provide a more robust analysis of the relationship between financial characteristics and corporate social responsibility over a longer time period. This would help to identify long-term trends and patterns in the relationship between financial characteristics and corporate social responsibility.

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