

**CORPORATE SOCIAL RESPONSIBILITY AND FINANCAIAL PERFORMANCE**



**Destiny Eloghosa UHUNMWANGHO**

**MGS2104689**

**DEPARTMENT OF ACCOUNTING,  
FACULTY OF MANAGEMENT SCIENCES,  
UNIVERSITY OF BENIN,  
BENIN CITY.**

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**A RESEARCH PROJECT SUBMITTED TO THE DEPPARTMENT OF ACCOUNTING,  
FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF BENIN, NIGERIA, IN  
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF  
BACHELOR OF SCIENCE (B.Sc.) DEGREE IN ACCOUNTING.**

**DECEMBER, 2025.**

## **DECLARATION**

**I, Destiny Eloghosa Uhunmwangho** declare that,

This research is based on a study undertaken by me in the Department of Accounting, Faculty of management sciences, University of Benin, Benin City, under the supervision of Mrs. E.D. Ken Otokiti of the Department of Accounting, Management Sciences, University of Benin, Nigeria. This work has not been submitted for the award of degree elsewhere. Ideas and views are gotten from my personal research and where the view of others has been highlighted, they have been duly acknowledge. Any liability arising from this work is to be wholly borne by me alone.

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**Destiny Eloghosa Uhunmwangho**  
**MGS2104689**

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**DATE**

## CERTIFICATION

We, certify that this research project was carried out by Destiny Eloghosa Uhunmwangho in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, Nigeria. It is adequate in scope and quality in partial fulfilment of the requirements for the award of Bachelor of Science (B.Sc.) degree in Accounting.

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**Mrs. E.D. Ken Otokiti**  
(Project Supervisor)

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**Date**

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**Dr. Ikhu-Omoregbe Godstime**  
(Project Coordinator)

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**Date**

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**Prof. .O. Obaretin**  
(Head of Department)

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**Date**

## **DEDICATION**

This project work is dedicated to God Almighty, for his wisdom and understanding, for seeing me through my academic aspirations. He has been my strength all through my years in school. I also want to dedicate this project to my beloved family and friends for their unwavering support and encouragement throughout my academy journey, all I can say is thank you and God bless you.

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## ABSTRACT

In addition to analysing the impact of firm-specific factors like firm size, firm age, corporate governance, and leverage, this study explores the connection between corporate social responsibility (CSR) and the financial performance of companies listed on the Nigerian Exchange Group (NGX). The study examined secondary data from 40 purposefully chosen organisations between 2020 and 2024 using an ex-post facto research design. Return on Assets (ROA) was used to measure financial performance, and a CSR Disclosure Index that captured ethical, legal, governance, environmental, and economic aspects was used to evaluate CSR. Descriptive statistics, correlation analysis, multiple regression, and diagnostic tests were used to examine the data.

Significant variation was found amongst organisations, especially in leverage and financial performance, according to the descriptive statistics. Corporate governance had the largest positive correlation with profitability, although there was no significant linear relationship between CSR and financial success, according to correlation analysis. According to the regression results, financial performance was positively but statistically insignificantly impacted by CSR disclosure, indicating that CSR initiatives in Nigeria do not yet directly result in financial gains. Additionally, firm size had a negligible detrimental impact. On the other hand, firm age demonstrated a large and significant beneficial impact on financial performance, suggesting that older enterprises gain from stability and expertise. Leverage showed a strong negative effect, suggesting that companies with large debt levels typically perform poorly, whereas corporate governance emerged as the most significant predictor of financial performance with a highly significant positive effect. The model's dependability was validated by diagnostic tests that verified the lack of serial correlation.

The study comes to the conclusion that, although CSR involvement is crucial, it has little effect on financial performance in Nigeria. Rather, firm maturity, responsible financial management, and good governance are more important factors in determining profitability. To enhance sustainable company performance, the report suggests improving institutional frameworks, optimising capital structure, strengthening corporate governance structures, and coordinating CSR actions with strategic goals. These findings provide managers, policymakers, and investors with useful insights and add to the expanding body of information on CSR and corporate performance in emerging economies.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

One of the most important metrics for evaluating a company's overall success, sustainability, and profitability is financial performance (FP). Financial performance, which is typically assessed using metrics like return on equity (ROE), return on assets (ROA), and net profit margin, is a crucial standard for investors and stakeholders. Beyond their legal responsibilities, businesses are using corporate social responsibility (CSR) as a strategic way to manage their ethical, social, and environmental implications. From being a charitable endeavour, corporate social responsibility (CSR) has developed into a strategic business strategy that affects sustainability and long-term profitability. Businesses are realising that sustaining their operating environment through social and environmental responsibilities is just as important to long-term success as maximising profits (Shakil et al., 2025).

The voluntary adoption of social, ethical, environmental, and governance duties by organisations that extend beyond regulatory compliance is included in corporate social responsibility (Saba.R 2023). Businesses today understand that generating value for a variety of stakeholders, such as

employee, communities, regulators, and the environment, is just as important to sustainable long-term success as maximising profits.

CSR becomes much more important in the situation of developing nations like Nigeria. The significance of corporate social responsibility in corporate governance and competitive strategy has increased due to the combination of inadequate institutional enforcement, public demand for accountability, and pressures from globalisation (Ado Ahmad et al, 2022; Kolawole, 2025). Because their externalities (social, environmental, and ethical) are significant, companies in industries including banking, oil and gas, manufacturing, and telecommunications are especially scrutinised for their CSR programs.

Even though CSR initiatives are widely used, it is still unclear how CSR affects financial performance. According to some research, CSR increases market value and profitability by boosting stakeholder trust, reputation, and resource access (Ofurum et al, 2022; Olawale et al., 2025). Others, however, see neutral or even detrimental effects, indicating that CSR may be ineffectively executed or take resources away from essential corporate activities (Ardiniamalia et al., 2023). For instance, when organisational culture was held constant, a study of Indonesian banks revealed no discernible direct impact of CSR on financial performance (Ardiniamalia et al., 2023).

Global sustainability trends, increased public awareness, and pressure for corporate accountability have all contributed to the rise of corporate social responsibility (CSR) in

developing nations like Nigeria (Ilemona et al, 2022). Businesses in the banking and oil industries, for example, frequently report increased stakeholder confidence and profitability when they participate in social and environmental initiatives (Olawale et al., 2025).

Initiatives for community development, environmental sustainability, ethical labour practices, and responsible governance are all part of corporate social responsibility (CSR). As stakeholder expectations change, businesses are incorporating CSR more and more into their corporate strategies, but there is still disagreement over whether CSR improves or detracts from financial performance. According to recent research conducted in Nigeria, CSR programs have a favourable impact on an organization's financial performance, competitiveness, and reputation (Akpa et al, 2024; Ofurum et al, 2022).

However, other academics argue that if spending on social programs exceeds financial gains, CSR may lower a company's profits (Osazevbaru et al., 2021). This intricacy highlights the necessity of comprehending CSR's multifaceted influence across legal, economic, ethical, governance, and environmental dimensions as well as its overall impact on Nigerian enterprises' financial success.

Given these conflicting results, a more thorough examination of CSR (legal, economic, ethical, governance, and environmental) and how each facet might affect financial performance differently in a developing country setting like Nigeria is desperately needed.

Furthermore, the absence of standardised CSR reporting frameworks also makes cross-company comparisons difficult. Although groups such as the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI) offer guidelines, inconsistent adoption and greenwashing practices mask the true impact of CSR activities (GRI, 2021). This ambiguity poses problems for investors trying to assess the materiality of CSR and for policymakers trying to encourage sustainable business practices. In light of these issues, this study examines the relationship between CSR and financial performance through a longitudinal, cross-industry lens, filling in methodological and contextual specificity gaps that have hindered previous research. This study investigates the relationship between CSR and financial performance, aiming to provide empirical clarity on whether CSR investments yield measurable financial benefits.

## **1.2 Statement of the problem**

Although, CSR is becoming more widely acknowledged, doubts remain regarding its actual contribution to improving Nigeria's financial performance. Instead of integrating CSR strategically, many businesses participate in it merely to satisfy regulatory requirements or present a positive image (Ilemona et al, 2022). The connection between CSR and corporate profitability is further obscured by weak institutional enforcement, corruption, and insufficient disclosure standards (Osazevbaru et al., 2021). Although corporate social responsibility (CSR) is now a crucial component of many firms' plans, its true effect on financial success is still unclear, particularly in developing nations. Instead of engaging in CSR as fully integrated strategic

initiatives, many Nigerian businesses do so mainly for compliance, image, or stakeholder appeasement. It is more difficult to connect CSR investment with quantifiable financial results when governance, environmental, and ethical norms are not strictly enforced.

In Nigeria, empirical studies produce contradictory findings: while some reveal minimal or negligible impacts, others show favourable connections. For instance, Sweetwilliams et al. (2025) discovered that, aside the introduction of board independence as a moderator, CSR disclosures had a negligible but statistically insignificant beneficial impact on ROE for Nigerian banks. Similarly, Ikilidih, Dibua, and Onwu (2024) discovered that while CSR expenses had an impact on ROA, they had no discernible effect on the return on capital used by Nigerian industrial goods companies. These discrepancies point to a lack of knowledge about which CSR factors actually influence financial performance and under what circumstances. Managers, investors, and legislators may find it difficult to deploy resources wisely or create profitable CSR initiatives if these factors are unclear.

Furthermore, the evaluation of CSR's financial impact in Nigeria is complicated by problems like sectoral heterogeneity, inconsistent disclosure quality, legislative ambiguity, and poor stakeholder participation. Thus, this study tackles the essential issue: Which CSR dimensions (legal, economic, ethical, governance, and environmental) have a major impact on Nigerian companies' financial success, and under what circumstances?

The lack of a universally accepted standard for measuring CSR and FP further complicates the issue. Financial performance is frequently measured through a variety of accounting or market-based indicators, producing inconsistent and occasionally contradictory results, in such situations, CSR initiatives may be more symbolic than substantial, influencing their financial ramifications. In order to determine if CSR efforts actually result in improved financial performance, contextual, data-driven research is desperately needed.

Apart from the discrepancies in empirical results, the relationship between CSR and financial performance is further complicated by contextual and regional variations. For instance, in developing economies, regulatory enforcement is frequently lax, CSR disclosures may be superficial, and cultural expectations regarding corporate responsibility may vary.

These elements may influence the perception of CSR programs and their ability to produce observable financial gains. The possibility of "greenwashing," in which businesses exaggerate or misrepresent their CSR pledges, also exists. This could mislead stakeholders and skew research findings.

Furthermore, while CSR may increase brand image and consumer loyalty, these advantages are often recognised over the long term. Many companies may be reluctant to invest in CSR because of the uncertain returns, especially those that are under pressure to produce immediate financial results. The need for longitudinal research is highlighted by this discrepancy between short-term performance metrics and long-term CSR benefits. Therefore, this study not only seeks to clarify

the nature of the CSR–financial performance link but also aims to assess this relationship over a longer time horizon and in the context of a specific economic environment..

### **1.3 Research Questions**

1. To what extent does the ethical dimension of Corporate Social Responsibility (CSR) influence the financial performance of firms?
2. How does compliance to the legal dimension of CSR impact a firm’s financial performance?
3. In what ways does the governance aspect of CSR contribute to variations in financial performance among organizations?
4. What relationship exists between the environmental aspect of CSR and the financial performance of firms?
5. Does the economic aspect of CSR have a significant effect on the financial performance of firms?

### **1.4 Objectives of the Study**

The main objective of this study is to examine the relationship between corporate social responsibility and financial performance among Nigerian firms, with a major focus on ethical

dimensions, legal dimensions, governance aspect, environmental aspects, economic aspects, specifically, this study aims:

1. To **examine** the extent to which the ethical dimension of corporate social responsibility (CSR) influences the financial performance of firms.
2. To **assess** how compliance with the legal dimension of CSR affects a firm's financial performance.
3. To investigate the ways in which the governance aspect of CSR contributes to variations in financial performance among organizations.
4. To determine the impact of the economic aspect of CSR on the financial performance of firms.
5. To analyse the relationship between the environmental aspect of CSR and the financial performance of firms.

### **1.5 Research Hypothesis**

H<sub>01</sub>: The ethical dimension of CSR has no significant influence on the financial performance of firms.

H<sub>02</sub>: The legal dimension of CSR does not significantly affect the financial performance of firms.

H<sub>03</sub>: The governance aspect of CSR does not contribute significantly to the financial performance of organizations.

H<sub>04</sub>: The economic aspect of CSR has no significant effect on the financial performance of firms.

H<sub>05</sub>: There is no significant relationship between the environmental aspect of CSR and the financial performance of firms.

## **1.6 Scope of the Study**

This study examines the dimensions of corporate social responsibility (ethical, legal, governance, economic, and environmental aspects) as it affects the financial performance of businesses. The study's focus is on evaluating how each of these factors affects businesses' financial results, including profitability, return on equity (ROE), return on assets (ROA), and overall market performance. The study covers a five years period from **2020 and 2024**.

## **1.7 Significance of the Study**

This study will improve knowledge of how corporate social responsibility (ethical, legal, governance, economic, and environmental) affect businesses' overall performance, sustainability,

and profitability. This study has theoretical and practical significance for a variety of stakeholders, including academics, legislators, investors, and firm managers, by meeting each research objective and hypothesis.

This study offers scholars and academics a current empirical addition to the theoretical discussion of whether corporate social responsibility (CSR) improves or limits business performance. It provides a basis for additional scholarly investigation since it is consistent with current CSR theories like the Stakeholder Theory, Legitimacy Theory, and Triple Bottom Line Theory. This study offers new data from Nigeria between 2020 and 2024, a time of increased CSR awareness and post-pandemic recovery, by analysing the five CSR dimensions. This enriches the body of evidence on the influence of CSR on financial performance in emerging nations and improves comparative research.

The study offers evidence-based insights on how CSR activities support businesses' financial viability and the growth of the national economy to policymakers and regulatory organisations like the Federal Ministry of Environment, the Nigerian Exchange Group (NGX), and the Corporate Affairs Commission (CAC).

This study assists policymakers in creating policies that promote sustainability, compliance, and transparency by supporting or refuting theories pertaining to the legal, governance, and environmental aspects. In order to ensure accountability and social responsibility in the Nigerian

business environment, it also helps regulators create frameworks that include CSR reporting into corporate governance regulations.

The study emphasises how CSR activities may be used by investors and shareholders as markers of a company's stability, reputation, and long-term profitability. Investors will be guided by the ethical and economic aspects of corporate social responsibility (CSR) when assessing companies based on their social responsibility and ethical standing in addition to financial returns. Understanding that businesses with strong CSR commitments frequently see increased market value, reduced risk exposure, and increased brand loyalty(all of which contribute to increased shareholder wealth)will be beneficial to investors.

The study provides useful information for business executives and corporate managers about how incorporating CSR into strategic planning might improve financial results. The study assists management in realising that CSR is not a cost centre but rather a potential source of profitability and competitive advantage by looking at hypotheses that examine correlations between CSR dimensions and financial performance. In order to maintain organisational growth and public trust, managers will be guided by the governance and ethical findings in particular when it comes to enhancing transparency, stakeholder involvement, and ethical decision-making.

Furthermore, organisations can create eco-friendly projects that enhance operational effectiveness while meeting environmental requirements with the use of environmental insights. Through this study, CSR is positioned as a multidimensional concept with measurable financial implications, offering insights that contribute to both theoretical advancement and practical implementation in the corporate sector.

The results can fill in theoretical gaps and provide useful advice for businesses aiming to strike a balance between sustainability and profitability. This study also fills this gap by collecting data from a sample of publicly traded companies in various industries to experimentally examine how CSR affects financial performance

### **1.8 Limitations of the Study**

This study focuses on five CSR dimensions (ethical, legal, governance, economic, and environmental) which, although broad, may not involve all aspects of CSR that could affect financial performance, the research is geographically limited to corporate organizations in Nigeria, particularly those listed on the Nigerian Exchange Group (NGX). This restricts the application of the findings to other industries or countries with different regulatory and socio-economic conditions.

Data collection also poses a limitation, as the study relies on secondary data, which may be affected by incomplete disclosures, or inconsistencies in corporate reports. Additionally, due to

time and resource drawbacks, the study covers a limited period (2020–2024), which may not fully reflect long-term CSR effects on financial outcomes.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

From a noble idea, corporate social responsibility (CSR) has developed into a strategic management approach that incorporates ethical, social, environmental, and governance issues into corporate operations (Amoako et al., 2023). Both internationally and in Nigeria, the discussion of the connection between CSR and financial performance keeps getting substantial scholarly attention. CSR may not have a statistically significant effect on business value, according to some researchers (Olayinka et al, 2023), while others indicate a strong correlation between CSR and profitability (Okafor et al, 2021; Ijeoma et al, 2022). These conflicting results emphasise the necessity of reevaluating CSR from a variety of angles, including ethical, legal, economic, environmental, and governance, as well as the ways in which these factors affect financial results. CSR activities have grown in importance for businesses looking for legitimacy, competitive advantage, and investor trust in Nigeria, where institutional and economic frameworks are still growing (Owolabi et al, 2021). The main conceptual, theoretical, and empirical ideas on CSR and FP that form the basis of this work are reviewed in the following sections. Through adding moderating and contextual factors, recent empirical research has added nuance. For instance, one study found that media attention moderated the relationship between

CSR and financial performance in China (Li et al, 2023), while another found that the size of the firm affects how CSR affects performance in Indonesian banks (Fiana et al, 2023).

## **2.2 Conceptual Framework**

This part divides into the conceptual framework of the study, discussing the fundamental principles and components of both the dependent and independent variables harnessed in the research.

### **2.2.1 Financial Performance**

Financial performance is the degree to which a company meets its financial goals and shows how well it makes use of its resources to produce profits and guarantee long-term viability. Profitability ratios, liquidity ratios, leverage ratios, and market-based metrics are examples of quantitative indicators that are commonly used to assess an organization's overall financial health, efficiency, and profitability (Nguyen et al., 2021). Ofori et al (2022) assert that a company's potential to generate value for shareholders, sustain competitiveness, and attain operational stability is significantly influenced by its financial performance.

Financial performance, which is impacted by both internal management choices and external environmental factors, is frequently seen as the primary indication of business success in the modern corporate world (Agyemang et al, 2021). It serves as a foundation for forecasting future growth possibilities in addition to reflecting historical operational results. For investors,

management, regulators, and other stakeholders who depend on financial outcomes to make decisions, financial performance is still a major concern (Afolabi, 2023).

Financial performance offers crucial information on how well an organisation uses its financial resources to accomplish its strategic objectives (Adegbite et al., 2022). It aids in determining a company's profitability, stability, and viability. Strong financial performance increases a company's ability to draw in investors, obtain outside funding, and continue operating even in recessions (Aslam et al, 2021). Additionally, it is closely related to stakeholders' trust and the company's reputation. For example, creditors examine financial performance indicators to ascertain the firm's capacity to fulfil its obligations, while shareholders use them to measure returns on investments (Nwude et al, 2020). By supplying the funds required for R&D, technology adoption, and corporate social responsibility efforts, strong financial success also promotes innovation and corporate sustainability initiatives (Abubakar et al., 2023). On the other hand, poor financial results can make it more difficult for a company to fund these kinds of projects, restrict its market reach, and lower its long-term competitiveness.

Financial performance is influenced by a number of internal and external factors. According to Adegbite et al. (2022), internal factors include capital structure, cost structure, innovation capacity, and managerial effectiveness. Macroeconomic stability, corporate governance, economic policy, and market rivalry are examples of external influences (Ofori et al, 2022).

Good corporate governance, for instance, increases accountability and transparency, boosting investor trust and producing better financial results (Nguyen et al., 2021). The degree to which a company meets its financial goals is known as its financial performance, and it is frequently assessed using quantitative metrics that show profitability, efficiency, and market value (Ogunleye et al, 2023). Commonly used FP metrics include:

### **2.2.1.1 Return on Assets (ROA)**

Measures the efficiency with which a firm uses its assets to generate profit. Higher ROA indicates effective utilization of company resources (Okonkwo, 2022). ROA is widely used because it captures the overall profitability relative to the company's asset base (Nguyen et al., 2021). **Pham et al. (2023)**, consistently use ROA to measure how effectively firms, including those in emerging markets, convert assets into profit, making it a cornerstone metric for internal performance assessment.

According to the review of Singh et al. (2024), return on assets (ROA), a typical metric for measuring profitability, shows how well a business uses its assets to produce profits. Profitability and growth are positively correlated, according to recent empirical data from a variety of markets. Research conducted in emerging markets has revealed that ROA is a powerful predictor of future growth performance, especially in the industrial and technology sectors.

ROA= Net income/Total assets

### **2.2.1.2 Return on Equity (ROE)**

ROE illustrates the profitability in relation to the equity held by shareholders. It demonstrates how well management generates profits using investment capital. According to Dangol et al. (2023), investor confidence and business valuation are directly impacted by a robust and durable ROE, which is a potent indicator of solid corporate governance and strategic acumen.

ROE's simplicity and clear connection to shareholder value put it at the centre of financial research, even in the face of new metrics and criticism of its shortcomings. However, a more sophisticated interpretation is emphasised by recent research and business trends, which integrate ROE with long-term value creation, intangible assets, and environmental, social, and governance (ESG) aspects.

A crucial financial indicator for assessing a business's profitability and effectiveness in producing revenue from shareholder investments is return on equity, or ROE. Its significance as an investing signal and the variables influencing it are highlighted in recent scholarly and financial studies.

A McKinsey & Company research from 2023 makes a clear connection between strategic resource allocation and ROE. It makes the case that organisations that use a methodical, flexible strategy to shifting capital from low-ROE ventures to high-ROE ones perform noticeably better than their competitors.

"Our research demonstrates that the strength of parsimony—concentrating on a small number of core capabilities where a business can attain a better ROE—is a more dependable route to value generation than limitless variety. Focus and capital discipline are rewarded by the market. (McKinsey & Company, 2023)

ROE= Net Income / Shareholders' Equity.

### **2.2.1.3 Earnings per Share (EPS)**

One of the most popular and closely examined financial measurements in the world is earnings per share, or EPS. It is a crucial measure of a company's profitability and worth since it shows the percentage of its earnings allotted to each outstanding share of ordinary stock. Although accounting regulations (IAS 33 and ASC 260) govern its computation, EPS interpretation has changed dramatically. Investors are going beyond the headline EPS figure in the current market climate (2020–2024) to comprehend the quality, sustainability, and drivers behind it, particularly when it comes to share buybacks, intangible investments, and non-GAAP indicators.

"Tail-risk events that cause big earnings crashes are less common in companies with high ESG scores. A higher P/E multiple for a given level of EPS is supported by this resilience, which translates into a lower risk premium sought by investors. (Krueger et al, 2023). For institutional investors, climate risks are crucial. The Financial Studies Review).

This is the percentage of a business's profit allotted to each outstanding share of common stock. From the standpoint of shareholders, it shows how profitable the company is (Adesina et al, 2020). According to Ullah et al. (2022), both analysts and investors keep a careful eye on EPS growth since it is a reliable indicator of favourable market performance. The calculations of EPS must follow consistent principles, as required by accounting standards (IAS) 33. The standard emphasizes the presentation of two types of EPS in the financial statements: basic and diluted EPS.

**Basic EPS = (Net Income - Preferred Dividends) / Weighted Average Common Shares Outstanding**

**Diluted EPS = (Net Income - Preferred Dividends) / (Weighted Avg. Common Shares + Dilutive Potential Common Shares)**

#### **2.2.1.4 Tobin's Q**

A market-based indicator of a company's performance that is computed by dividing its market value by the cost of replacing its assets. According to Tobin's Q above one, investors place a high value on the company's growth potential and intangible assets (Udeh et al, 2024). In a global study, Buallay (2020) discovered that companies with robust sustainability and governance disclosures regularly showed higher Tobin's Q ratios, suggesting that the market rewards openness and long-term planning. These indicators jointly provide a comprehensive assessment

of both short-term and long-term financial health, and they are widely used in CSR–FP empirical studies.

### **2.2.2 Corporate social responsibility (CSR)**

Corporate Social Responsibility has developed into a key component of modern corporate governance and commercial strategy. It stands for an organization's moral duty to operate in a way that benefits not just shareholders but also workers, customers, communities, and the environment. The pressure on firms to exhibit socially responsible behaviour has increased due to the problems of climate change, growing stakeholder awareness, and the growing globalisation of business (Carroll et al, 2021). CSR is a strategic necessity for sustainable development in the twenty-first century, in addition to being a moral requirement (Agyemang et al, 2022). CSR entails coordinating corporate activities with social ideals through voluntary efforts that go beyond merely following the law. It includes a broad range of initiatives, including transparent governance, community investment, environmental sustainability, and ethical labour practices (Ali et al, 2023). From charitable contributions to integrated sustainability frameworks that assess a company's social, environmental, and economic effect, the concept of corporate social responsibility (CSR) keeps growing. CSR is a complex idea that incorporates economic, social, and environmental issues into business decisions. The International Organisation for Standardisation (ISO 26000) defines corporate social responsibility (CSR) as the voluntary integration of social and environmental concerns into business operations and stakeholder

interactions. The European Commission (2020) defines CSR as "the responsibility of enterprises for their impacts on society."

Fundamentally, CSR prioritises transparency and accountability. It pushes businesses to consider long-term societal well-being rather than just maximising profits (Eweje, 2021). Businesses that engage in corporate social responsibility (CSR) prioritise sustainability, ethical governance, community development, employee welfare, and environmental stewardship. As businesses become more aware of CSR's potential to improve financial performance, attract customers, and boost reputation, it can be seen as a strategic investment rather than an expense (Agudelo et al, 2020).

According to Carroll (2021), corporate social responsibility (CSR) refers to a company's duty to pursue policies and make judgements that are desirable in terms of the goals and values of society. Beyond merely adhering to regulations, it entails the voluntary incorporation of social and environmental considerations into company activities (Umar et al, 2020). CSR is multifaceted and usually consists of the following:

#### **2.2.2.1 Ethical Dimension**

The fundamental aspect of Corporate Social Responsibility (CSR) is its ethical component. It addresses the basic moral duties a corporation has to its stakeholders and society at large, going

beyond the legal and charitable components. This viewpoint is based on the knowledge that businesses, as significant social actors, are integrated into a web of moral connections with different stakeholders (Freeman et al., 2020). As a result, corporate net-zero commitments are being scrutinised for their ethical integrity as well as their ambition. This is especially true when it comes to the use of unreliable offsets and a lack of immediate action, which is frequently referred to as "greenwashing" (Lyon et al, 2020). According to research, effective diversity, equity, and inclusion (DEI projects) need more than simply training programs; they also need systemic changes to organisational structures and cultures (Dover et al., 2020).

This dimension contends that regardless of profitability or legal requirements, businesses have a need to act in a just, fair, and ethically sound manner. This involves fostering integrity and human rights both inside and outside the company, and guaranteeing justice, openness, and honesty in business operations. In addition to adhering to the law, businesses must act morally upright and in accordance with social norms and justice (Jamali et al, 2021). Honesty in advertising, treating employees fairly, and integrity in financial reporting are all examples of ethical responsibility.

The foundation of a company's social license to operate is the ethical aspect of CSR. It is essentially about incorporating moral values into fundamental economic strategy, such as justice, fairness, and respect for human dignity. The expectations are changing quickly due to advances in technology, social movements, and climate research, as recent citations show. Businesses are

most likely to gain credibility and prosper in the twenty-first century if they view these moral obligations as essential to long-term value generation rather than as a public relations ploy.

#### **2.2.2.2 Legal Dimension**

This refers to an organization's duty to abide by all laws, rules, and legal requirements that control its operations. It stands for the second level of Carroll's CSR Pyramid, which emphasises that businesses must operate within the bounds of established legal requirements in addition to pursuing profitability (Carroll et al, 2021). The legal aspect of modern corporate governance emphasises how businesses must abide by labour laws, environmental regulations, tax compliance, consumer protection legislation, and corporate governance mandates in order to remain legitimate.

As governments progressively codify responsible company activity, the legal landscape surrounding corporate social responsibility (CSR) has grown dramatically in many jurisdictions, especially emerging economies. Companies are now required by law to comply with corporate governance frameworks, environmental impact assessments, and sustainability reporting (Okafor et al, 2022). This development shows how volunteer CSR initiatives have given way to formalised legal requirements intended to guarantee accountability, openness, and moral behaviour in business.

Adherence to the laws, rules, and regulations that control how businesses operate, making sure that labour, tax, and environmental laws are followed. Organisations have to follow both domestic and international legal frameworks. A key component of CSR is adherence to laws pertaining to taxes, labour rights, consumer protection, and environmental standards (Ofori et al, 2023).

The legal dimensions also highlights the need for businesses to refrain from actions that put stakeholders at risk due to carelessness or regulatory violations. For instance, businesses must protect labour rights, guarantee workplace safety, and refrain from taking any activities that could harm the environment or breach consumer rights (Adeyemi et al, 2023).

In addition to reducing litigation risks, strategic compliance increases stakeholder trust, which is more closely linked to long-term financial performance. The legal aspect of corporate social responsibility (CSR) essentially reflects the minimal requirements that society expects businesses to fulfil. In order to promote justice, safeguard stakeholders, and maintain the larger socioeconomic environment, it guarantees that businesses must pursue profit within the bounds of the law (Amao et al, 2025).

### **2.2.2.3 Governance Dimension**

Focusses on the internal systems, procedures, and systems that businesses use to guarantee responsibility, openness, moral behaviour, and responsible decision-making. It emphasises how internal controls, corporate boards, and management systems direct CSR policies and incorporate sustainability into strategic operations (Agyemang et al, 2021). Because it offers the structure that connects a company's social and environmental obligations to real performance outcomes, strong governance is crucial. Establishing transparent accountability and oversight frameworks that guarantee ethical behaviour at all organisational levels is a prerequisite for good corporate governance in the context of corporate social responsibility. Board supervision of sustainability matters, adherence to governance codes, risk management procedures, anti-corruption frameworks, whistleblower systems, and moral decision-making procedures are all included in this (Olojede et al, 2022).

Organisations must implement governance frameworks that uphold the growing demands of stakeholders for transparency. Stakeholder-inclusive decision-making is emphasised in modern governance frameworks, which go beyond shareholder-centric customs. Businesses must guarantee the independence and diversity of boards, include environmental and social risks into governance frameworks, and report sustainability information (Yakubu et al, 2023).

These procedures increase organisational resilience, lower reputational risks, and foster trust. Integrating an ethical culture across the entire organisation is another aspect of the governance dimension. Internal controls, compliance procedures, and ethical leadership all aid in preventing fraud, corruption, and unethical behaviour that can erode stakeholder trust (Okonkwo et al, 2024). By enabling stakeholders to evaluate the company's CSR performance and pledges, transparent reporting standards—such as integrated reporting and sustainability disclosures—further improve accountability.

Stakeholder involvement strategies, board independence, accountability, and efficient internal controls (Nwankwo et al, 2022). Transparency, accountability, and moral leadership are guaranteed by sound company governance. It entails fair business practices, anti-corruption initiatives, and transparent stakeholder communication (Omondi, 2022).

In general, the governance factor highlights the accountability processes, institutions, and leadership that promote ethical business activities. It guarantees that companies manage risks well, operate ethically and honestly, and uphold long-term sustainability in accordance with international best practices.

#### **2.2.2.4 Environmental Dimension**

Refers to an organization's dedication to encouraging sustainable environmental practices and reducing its ecological imprint. It includes all laws, plans, and initiatives meant to preserve biodiversity, lessen pollution, safeguard natural resources, and advance long-term environmental

sustainability. Businesses are required to incorporate environmental stewardship into their fundamental business operations as concerns about climate change grow on a worldwide scale (Mensah et al, 2021).

The adoption of strategies that lower waste, pollution, and energy use is a significant part of the environmental factor. These days, a lot of businesses use greener production techniques, make investments in renewable energy sources, and abide by environmental rules such pollution control laws, environmental impact assessments (EIAs), and global sustainability standards (Chukwu et al, 2022). These eco-friendly procedures lessen operating dangers, fines from authorities, and harm to one's reputation.

Another important component of the environmental factor is sustainability reporting. Environmental performance, including carbon footprints, waste management plans, and water conservation initiatives, must be measured, reported, and disclosed by businesses. Adoption of frameworks like integrated sustainability reporting and the Global Reporting Initiative (GRI) improves transparency and allows stakeholders to assess environmental accountability (Olaoye et al, 2023). Organisations are also urged to take part in proactive environmental projects like eco-innovation, circular economy methods, green supply chain management, and reforestation. These programs are part of a larger movement away from compliance-based environmental responsibility and towards strategic sustainability, which improves long-term company

competitiveness while simultaneously improving environmental protection (Eze et al, 2024). Initiatives to lower carbon emissions, manage pollution, preserve resources, and advance ecological sustainability. CSR's environmental component places a strong emphasis on managing waste, cutting carbon emissions, and using resources sustainably. To lessen environmental deterioration, businesses are progressively implementing circular economy models and green practices (Zhong et al., 2023).

Stakeholder involvement also heavily relies on environmental CSR. Investment decisions, customer loyalty, and competitive advantage are all impacted by the growing importance that consumers, investors, and regulators place on environmentally conscious businesses (Adekunle et al, 2025). Businesses that don't implement sustainable environmental policies risk losing market share, regulatory penalties, and increased scrutiny.

In general, the environmental aspect of corporate social responsibility emphasises the need for businesses to conduct themselves in an environmentally sustainable way. It reaffirms the notion that companies must strike a balance between producing money and safeguarding the environment in order to ensure the welfare of current and future generations.

#### **2.2.2.5 Economic Dimension**

Projects that improve sustainable profitability, equitable employee compensation, and community development (Adeniyi et al, 2023). The economic function of business—to be

lucrative and efficient—is the cornerstone of corporate social responsibility. Businesses can invest in sustainable projects since profitability guarantees their survival and expansion (Carroll, 2021). CSR, on the other hand, places a strong emphasis on making ethical profits while taking stakeholder interests into account.

Thus, CSR is viewed as a long-term investment in the company's market positioning and reputation, with possible effects on stakeholder satisfaction, operational effectiveness, and profitability (Ikechukwu et al, 2021).

Responsible value generation is a key component of the economic dimension. According to Okeke et al (2022), companies are expected to implement ethical business practices, guarantee fair pricing, offer high-quality products, and participate in activities that improve productivity and operational efficiency. Increasing financial stability and competitiveness puts businesses in a better position to fund environmental and social projects. Therefore, the foundation of sustainable business activity is economic responsibility.

Economic responsibility in modern company settings also encompasses tax payments, local sourcing, employment development, and investments that boost host communities' economies. By paying taxes honestly, encouraging innovation, and advancing skill development, businesses support national development (Adegbite et al, 2023). These initiatives assist businesses establish enduring bonds with stakeholders and bolster social legitimacy.

Additionally, the economic factor places a strong emphasis on financial responsibility and long-term risk management. Businesses must implement financial policies and governance frameworks that guarantee responsible resource use, cost effectiveness, and resilience in changing market situations (Yakubu et al, 2023). In this way, sustainable decision-making, in which businesses take into account the financial consequences of social and environmental commitments, is linked to economic responsibility.

Firm performance is also improved when sustainability is incorporated into economic strategy.

According to empirical research, businesses with high economic responsibility—such as effective cost control, innovation, and ethical investing practices—tend to draw in more capital, enhance operational effectiveness, and gain a sustained competitive edge (Adewuyi et al, 2024).

The strategic significance of the economic aspect of CSR is reinforced by stakeholders' growing preference for companies that combine profitability with ethical business practices.

In conclusion, the economic aspect of corporate social responsibility emphasises the significance of profitability, efficiency, and long-term financial sustainability as conditions for ethical business practices. To stay legitimate and prosper in the cutthroat business world of today, companies must strike a balance between their pursuit of profit, moral behaviour, and long-term value creation.

## **2.3 Theoretical Review**

Through analysing presumptions from management, economics, and organisational behaviour, the theoretical study thus offers an intellectual framework connecting CSR to FP. These ideas aid in explaining whether corporate social responsibility (CSR) increases a company's profitability, strengthens ties with stakeholders, creates a competitive advantage, or imposes needless expenses that could lower financial performance. Additionally, they shed light on contextual elements that regulate the CSR-FP link, such as corporate capabilities, public expectations, and governance quality. Stakeholder theory, legitimacy theory, agency theory, resource-based view (RBV), and the triple bottom line theory are some of the main theories that are frequently used in CSR research. When taken as a whole, these theories offer complementary viewpoints that support the model used in this study and direct the interpretation of actual data.

### **2.3.1 Stakeholder Theory**

According to Freeman's (1984) stakeholder theory, businesses must take into account the interests of all stakeholders, not just shareholders, in order to succeed over the long term. CSR increases profitability and lowers risk by fostering stakeholder relationships and fostering trust (Ijeoma et al, 2022). This hypothesis offers a solid basis for the positive relationship between CSR and FP, implying that companies that attend to stakeholder needs reap long-term financial and reputational benefits.

According to the notion, a company's ability to successfully manage relationships and satisfy the demands of these many groups is what determines its success (Harrison et al, 2020).

Stakeholder theory's main contention is that a company performs better when it puts the interests and welfare of all people or groups impacted by its choices first (Freeman et al., 2020). This strategy is different from the conventional shareholder-centric model, which is mainly concerned with maximising profits.

### **2.3.2 Legitimacy Theory**

According to legitimacy theory, organisations want to make sure that their activities are seen as legitimate in light of social norms and expectations. Businesses employ CSR initiatives and disclosures as a means of gaining social acceptance and lowering reputational risk (Umar et al, 2020). According to this hypothesis, companies in sectors like oil and gas that have a significant impact on the environment participate more in CSR in order to keep their social license to operate.

It contends that businesses always work to make sure that their practices, principles, and behaviours are seen as suitable and acceptable within the larger social norms and expectations (Suchman, 1995; Hahn et al, 2023). According to this hypothesis, businesses take socially conscious actions, such as making CSR disclosures, to preserve or regain their legitimacy when it is under jeopardy.

The fundamental tenet of legitimacy theory is that organisations rely on social acceptance to survive. A company gains legitimacy, which improves its access to resources, market support, and stakeholder trust, when society views it as functioning morally, responsibly, and in accordance with societal standards (Deegan, 2020).

### **2.3.3 Agency Theory**

It analyses the conflicts that occur when one party (the principal, like shareholders) gives another party (the agent, like managers) decision-making authority. It was first developed by Jensen and Meckling in 1976. According to the theory, agents might not always operate in principals' best interests, particularly if their objectives or motivations diverge (Adegbe et al, 2021).

The possible conflict between managers and shareholders is highlighted by agency theory. Instead of maximising shareholder wealth, managers may engage in CSR initiatives that enhance their own reputations (Olayinka et al, 2023). Therefore, depending on the level of governance and how well managerial incentives line with shareholder interests, CSR may either increase or decrease FP.

Agency Theory's main contention is that managers (agents) may prioritise their own goals over increasing shareholder value, such as job security, benefits, or reputation. Agency conflict

brought on by this misalignment can result in inefficiencies, bad governance, and decreased company value (Mudashiru et al., 2020).

#### **2.3.4 Resource Based View (RBV)**

It was made popular by Barney (1991) and contends that the possession and efficient use of valuable, rare, unique, and non-substitutable (VRIN) resources is essential to a company's long-term competitive advantage. The strategy highlights that excellent performance is mostly driven by internal skills rather than external market conditions (Barney et al, 2021).

The RBV contends that valuable, uncommon, and unique resources can give businesses a competitive edge. CSR can produce intangible assets that improve business performance, such as a strong brand reputation, employee dedication, and consumer loyalty (Amoako et al., 2023).

According to RBV, discrepancies in performance can be explained by variances in the resource endowments of enterprises. Both real and intangible resources help businesses create distinctive skills that are difficult for rivals to match (Wang et al, 2020).

RBV therefore connects internal resource strengths to financial outcomes, making it a key theory in strategic management and CSR research.

### **2.3.5 Triple Bottom Line Theory (TBL)**

According to Elkington (1997), the Triple Bottom Line concept incorporates social, environmental, and economic aspects of business performance. It implies that attaining social justice and environmental sustainability at the same time is necessary for long-term financial success. This all-encompassing perspective suggests complementarity rather than trade-off between CSR and the goal of prosperity.

The thesis states that businesses produce long-term value by minimising environmental harm and making constructive contributions to society in addition to producing financial returns (Elkington, 2020; Arowoshegbe et al, 2021).

TBL encourages businesses to pursue comprehensive performance by providing a framework for sustainability and corporate social responsibility (CSR).

## **2.4 Empirical Review**

### **2.4.1 Ethical dimensions and financial performance**

Research is increasingly demonstrating that businesses with strong ethical standards typically have better short- and long-term financial results. Today's consumers favour ethical companies, and businesses that exhibit integrity, equity, and openness frequently have higher customer retention and willingness to pay (Kim et al, 2023). Revenue growth is positively impacted by this.

Employee loyalty, productivity, and morale are all boosted by treating them ethically. Reduced hiring and training expenses result from lower turnover, which boosts profitability (Omondi et al, 2021). Because, ethical governance frameworks reduce the danger of fraud and corporate failure, investors are increasingly favouring these companies (Garcia et al, 2022). Long-term value is increased and the cost of capital is reduced by ethical compliance.

Financial performance can be severely harmed by fines, legal action, and reputational scandals, all of which are less likely when ethical behaviour is practiced (Adegbile, 2024).

Through ensuring market competitiveness and boosting long-term profitability, ethical CSR activities bring businesses into compliance with international sustainability norms (Zhang et al, 2020). All things considered, the ethical component creates a solid reputation base that gives businesses a competitive edge and better financial outcomes. Businesses that fulfil their ethical obligations improve stakeholder relations, lower operational uncertainty, and eventually increase return on equity (ROE), return on assets (ROA), and overall company value (Nwankwo et al, 2023).

#### **2.4.2 Legal dimension and financial performance**

The legal aspect of corporate social responsibility is becoming more widely acknowledged as a tactical instrument for improving financial success. Businesses that adhere to pertinent regulatory

requirements foster a stable atmosphere that encourages increased profitability and long-term sustainability.

Businesses can avoid fines, legal action, and penalties by following environmental, tax, labour, and safety standards. Better financial performance is a direct result of avoiding these expenses (Olawale et al, 2023).

Strong compliance systems are preferred by investors because they reduce risk. Increased investor interest and reduced cost of capital are frequently the outcomes of more transparency and compliance (Mensah et al, 2022).

Businesses must maintain effective management systems and organised internal controls in order to comply with the law. These solutions boost production, cut waste, and have a favourable impact on profitability (Adekunle et al, 2024).

Adhering to the law transparently increases a company's reputation, which can lead to an increase in market share and customer loyalty. Revenue and return on equity (ROE) are positively impacted by a company's reputation (Chiemeké et al, 2021).

Legal CSR lessens the possibility of legal cases, shutdown orders, regulatory enquiries, and reputational harm, all of which can have a detrimental effect on financial performance (Okoro et al, 2025).

Through demonstrating accountability to stakeholders, a legally compliant company fosters enduring business ties that improve financial sustainability (Agyemang et al, 2022). In general, companies that incorporate the legal aspect of corporate social responsibility (CSR) into their operations experience improved financial performance metrics like return on assets (ROA), return on equity (ROE), and net profit margin (NPM), as well as increased financial stability and sustained growth (Nwokorie, 2023).

### **2.4.3 Governance dimension and financial performance**

Strong governance systems help businesses achieve better financial results, according to recent studies. Because it affects how well businesses are managed and react to threats, the governance component is closely associated with financial performance. By coordinating managers' interests with shareholders' objectives, good governance lessens agency issues. This results in increased return on equity (ROE), enhanced profitability, and effective resource allocation (Owolabi et al, 2023).

Investors that respect accountability and financial discipline are drawn to transparent corporate governance structures. Reduced perception of risk frequently lowers a company's cost of capital and increases its value (Boateng et al, 2022).

Strong governance frameworks reduce the likelihood of financial irregularities, fraud, and poor management, all of which have a direct impact on financial performance (Okafor et al, 2024).

Long-term value generation, strategic planning, and innovation are all encouraged by a competent and diverse board of directors. Strong governance typically results in higher ROA, ROE, and Tobin's Q scores for businesses (Almashaqabeh et al, 2023).

The company's reputation for honesty and accountability is enhanced by governance-focused CSR. This boosts sales and competitive advantage while fortifying shareholder loyalty (Ibrahim et al, 2021). By ensuring adherence to business norms, tax laws, and financial reporting standards, good governance lowers the risk of litigation and enhances financial stability (Adeniyi et al, 2025).

When taken as a whole, these methods demonstrate the strategic role that sound governance plays in boosting both immediate profitability and long-term financial sustainability. Better financial performance metrics, such as ROA, ROE, sales growth, and market valuation, are often reported by businesses with strong governance processes (Nnaji et al, 2023).

#### **2.4.4 Environmental dimension and financial performance**

Due to customer demand for eco-friendly products, investor expectations, regulatory pressure, and global climate concerns, environmental responsibility has emerged as a key strategic concern

for businesses globally. Strong environmental corporate social responsibility (CSR) practices show long-term sustainability, responsible stewardship, and proactive environmental risk management (Lopez et al, 2022).

An increasing amount of research demonstrates that environmental CSR can have a substantial impact on financial success, particularly through risk reduction, cost savings, and market competitiveness.

Recycling, energy-efficient procedures, and trash reduction are examples of environmental initiatives that lower operating costs and increase profitability and return on assets (ROA) (Mihai et al, 2023).

Businesses that do well in terms of the environment are seen as trustworthy and responsible. This can raise market valuation, draw in eco-aware consumers, and improve brand loyalty (Chen et al, 2021). Green loans, sustainability-linked financing, and investments from ESG-focused funds are becoming available to environmentally conscious businesses, improving their financial performance (Agyapong et al, 2024).

Compliance with environmental regulations reduces the risk of penalties, closures, and legal action. Financial performance benefits from this stability (Oluwole et al, 2022).

Investing in clean technology encourages innovation, which helps businesses create eco-friendly products and stand out from the competition, increasing sales and profitability (Zhang et al,

2020).

Environmental CSR lowers the risks associated with climate change, including as supply chain interruptions, resource scarcity, or fines under carbon regulations. Long-term firm worth is increased as a result (Nguyen et al, 2025).

When taken as a whole, these mechanisms show that environmental corporate social responsibility (CSR) is both a strategic driver of financial performance across industries and an ethical requirement.

#### **2.4.5 Economic dimension and financial performance**

This dimension acknowledges that creating economic value while balancing the demands of investors, consumers, workers, and society is a company's main duty. According to Adeyemi et al (2023), economic corporate social responsibility (CSR) encompasses prudent financial management, innovation, productivity enhancement, and contributions to national economic development through employment and taxation. Because it promotes efficiency, market competitiveness, and business continuity, recent research shows a substantial correlation between the economic aspect of CSR and better financial performance. By implementing ethical business practices that boost competitiveness and consumer loyalty, economic CSR improves a company's capacity to produce steady profits (Munene et al, 2022). Revenue growth and return on equity (ROE) are positively impacted by offering high-quality goods, reasonable prices, and value-added services that draw clients and improve market positioning (Chen et al, 2021).

Stronger financial results result from investments in technology, staff development, and innovation since they lower operating costs and boost productivity (Yusuf et al, 2024).

Businesses that exhibit sound financial management and economic stability draw in more investors, which lowers their cost of capital and boosts their financial performance (Otieno et al, 2023). Businesses are encouraged by economic CSR to implement long-term planning, diversify their sources of income, and lessen their financial susceptibility. These steps increase long-term value and protect businesses from market shocks (Lee et al, 2020).

Businesses increase their economic legitimacy by paying taxes, promoting local suppliers, and generating jobs. This increases shareholder loyalty and tangentially boosts financial performance (Odukoya et al, 2024).

In general, the economic component of CSR guarantees that businesses preserve their financial viability while providing socioeconomic advantages to stakeholders, which eventually results in improved financial measures like ROA, ROE, net profit margin (NPM), and firm value (Oluwafemi et al, 2023).

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The approach used to look into the relationship between the corporate social responsibility (CSR) and financial performance (FP) of companies listed on the Nigerian Exchange Group (NGX) is described in this chapter. The population, sample and technique, method of data collection, model specification, operationalisation of variables, and data analysis methods are all covered.

#### **3.2 Research Design**

The study uses an ex-post facto research design, which is suitable for examining historical data in situations where factors have already happened and the researcher is unable to change them. Using information taken from business reports and financial statements, this methodology enables the establishment of correlations between CSR practices (independent variables) and financial performance (dependent variable). Studies examining cause-and-effect correlations in circumstances where the researcher has no control over the variables are best suited for the ex-post facto design, according to Kothari (2021). This architecture allows for a methodical and empirical investigation of the relationship between CSR initiatives and financial outcomes using

quantitative techniques because corporations have already documented and implemented these initiatives.

### **3.3 Population of the Study**

All companies listed on the Nigerian Exchange Group (NGX) as of December 2024 make up the study's population, there were about 157 companies listed on the NGX as of 2024. These companies work in a variety of industries, such as banking, consumer products, manufacturing, oil and gas, and telecommunications. Cross-sectorial comparisons of CSR practices and their financial results are made possible by the inclusion of multiple sectors, which improves generalisability. However, only companies with complete and consistent data between 2020 and 2024 make up the accessible population for this analysis because to differences in reporting standards and CSR disclosures.

### **3.4 Sample and Sampling Technique**

Purposive sampling was used in the study to choose companies, purposeful sampling is suitable to choose participants who meet the study's goals and have the necessary data (Saunders et al., 2020). Forty (40) firms were chosen as the study sample.

### **3.5 Method of Data Collection/Sources of Data**

The study's secondary data came from a variety of reliable and publicly accessible sources, such as: Annual reports and sustainability declarations of particular companies (2020–2024), the official website of the Nigerian Exchange Group (NGX), firm portals and filings from the

Corporate Affairs Commission (CAC), Statistical Bulletin of the Central Bank of Nigeria (CBN), sustainability databases including the Global Reporting Initiative (GRI), factbooks, and periodicals. A structured data extraction form was used to extract financial and CSR indicators from company reports as part of the data collection procedure. Financial performance indicators were computed from financial statements, and each CSR dimension was categorised using a CSR disclosure index (CSRDI).

### 3.6 Model Specification

The model of this study is adapted from Agyemang et al, (2022), who employed multiple regression frameworks to investigate the influence of CSR dimensions on enterprises' financial performance. By using earnings per share (EPS) as the only dependent variable that represents financial performance, this study alters its model.

#### Model used by Agyemang et al, (2022):

$$FP_{it} = \beta_0 + \beta_1 CSR_{it} + \beta_2 GOV_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 AGE_{it} + \epsilon_{it}$$

Where:

$FP_{it}$  = Financial Performance (measured by ROA and Tobin's Q)

$CSR_{it}$  = Composite CSR disclosure score

$GOV_{it}$  = Corporate-governance index (board independence, audit committee)

SIZE, LEV, AGE = control variables

LEV<sub>it</sub> = Total Debt / Total Assets

To suit this study, the model is modified thus:

$$EPS_{it} = \beta_0 + \beta_1 ETH_{it} + \beta_2 LEG_{it} + \beta_3 GOV_{it} + \beta_4 ENV_{it} + \beta_5 ECO_{it} + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \beta_8 AGE_{it} + \alpha_i + \lambda t + \epsilon_{it}$$

EPS<sub>it</sub> = Earnings Per Share of firm *iii* in year *t* (Dependent variable)

ETH<sub>it</sub> = Ethical CSR index for firm *iii* in year *t*

LEG<sub>it</sub> = Legal CSR index for firm *iii* in year *t*

GOV<sub>it</sub> = Governance CSR index for firm *iii* in year *t*

ENV<sub>it</sub> = Environmental CSR index for firm *iii* in year *t*

ECO<sub>it</sub> = Economic CSR index for firm *iii* in year *t*

SIZE<sub>it</sub> = Firm size (control;  $\ln(\text{total assets})$ )

LEV<sub>it</sub> = Leverage (control; total debt / total assets)

AGE<sub>it</sub> = Firm age (control; years since incorporation)

$\beta_0$  = Intercept (constant)

$\beta_k$  = Coefficients to be estimated (for  $k=1, \dots, K$ )

$\alpha_i$  = Unobserved time-invariant firm-specific effect

$\lambda_t$  = Unobserved time-specific (year) effect common to all firms

$\epsilon_{it}$  = Idiosyncratic error term

### 3.7 Operationalization of Variables

**Table 3.1**

S/N	VARIABLES	VARIABLE MEASUREMENT	SOURCE
	<b>Dependent</b>		
<b>1</b>	Earnings Per Share (EPS)	Net Profit After Tax ÷ Number of Outstanding Ordinary Shares	Olawale et al., 2025; Kolawole (2025).
	<b>Independent</b>		
<b>2</b>	Ethical CSR (ETH)	CSR Disclosure Index (ethical policies, anti-corruption programs, fair labour practices, business	Adebile (2024).

		ethics)	
<b>3</b>	Legal CSR (LEG)	Compliance with laws and regulations (tax, labour, environmental)	Amao & Uwaebi (2025).
<b>4</b>	Governance CSR (GOV)	Board structure, transparency, audit committee effectiveness	Adeniyi & Olatunbosun (2025).
<b>5</b>	Environmental CSR (ENV)	Environmental programs, carbon reduction, energy efficiency, waste management	Adekunle & Sodiq (2025)
<b>6</b>	Economic CSR (ECO)	Community investment, employee welfare, and tax contribution	Adewuyi & Aremu (2024).
	<b>Control</b>		
<b>7</b>	Firm Size (SIZE)	Natural log of total assets	Kolawole (2025)
<b>8</b>	Leverage (LEV)	Total Assets/Total Debt	<b>Olawale et al. (2025)</b>
<b>9</b>	Firm Age (AGE)	Current Year–Year of Incorporation	<b>Adewuyi &amp; Aremu (2024)</b>

A CSR Disclosure Index (CSRDI), modified from Global Reporting Initiative (2021) and Ali, Frynas, & Mahmood (2023), is used to operationalise CSR dimensions. Every CSR activity revealed in the sustainability or annual report receives a score of either 0 (not disclosed) or 1 (disclosed). The CSRDI value for each firm-year is calculated by dividing the overall disclosure score by the maximum

### **3.9 Method of data analysis/Technique of Data Analysis**

The study's methodological approach was introduced in this chapter. The demographic, sample selection, data collection, model specification, and analysis methods were all covered in detail. This methodology guarantees empirical validity, reliability, and repeatability through the use of an ex-post facto design, purposive sampling, and panel regression analysis.

Descriptive, correlation, and multiple regression analyses were performed on the data using SPSS version 27 and EViews 13.

Descriptive statistics: To provide an overview of the variables' mean, median, standard deviation, and range. Correlation Analysis: To evaluate the strength and direction of the relationship between financial performance and CSR parameters.

Regression Analysis: Time and firm-specific variations were taken into consideration using panel data regression (Fixed Effects and Random Effects Models), the Hausman Test was used to choose the right model, Individual coefficients were evaluated for significance using t-tests, the total model fit was assessed using the F-test, to verify multicollinearity, the Variance Inflation

Factor (VIF) was calculated, the model's explanatory power was assessed using R<sup>2</sup> and Adjusted R<sup>2</sup>. Every test was performed with a significance level of 5% ( $p < 0.05$ ).

## **CHAPTER FOUR**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.0 Introduction**

This chapter presents, analyzes, and interprets the data collected for the study on the relationship between financial performance and corporate social responsibility, alongside firm-specific characteristics of companies listed on the Nigerian Exchange Group (NGX). The primary objective of this chapter is to provide an empirical assessment of the hypotheses formulated in earlier chapters and to examine how variables such as corporate social responsibility disclosure, firm size, firm age, corporate governance, and leverage influence the financial performance of Nigerian firms.

The chapter begins with a descriptive analysis of the data, including measures of central tendency, dispersion, skewness, and kurtosis, to provide an overview of the distribution and characteristics of the study variables. This is followed by correlation analysis to examine the strength and direction of the relationships among variables. Thereafter, the results of the regression analysis are presented to evaluate the impact of independent variables on financial performance, alongside diagnostic tests, including checks for serial correlation, to ensure the robustness and reliability of the model.

The findings in this chapter are interpreted in the context of existing literature, theoretical frameworks, and the Nigerian business environment, providing the foundation for a comprehensive discussion in the subsequent chapter. The insights gained from this analysis are crucial for understanding the determinants of financial performance in Nigerian listed companies and for informing practical recommendations for managers, policymakers, and stakeholders.

#### 4.1 Descriptive Statistics

	FP	ECO	ETH	ENV	GOV	LEG	FSIZE	LEV
Mean	0.328493	0.296267	0.358614	0.278536	0.322621	0.319083	4.559172	0.950886
Median	0.221507	0.158098	0.313374	0.150680	0.208162	0.246287	3.932002	0.443465
Maximum	0.984964	0.993560	0.993032	0.996996	0.990434	0.974480	9.986380	48.80110
Minimum	0.000000	0.000605	0.001513	0.000504	0.000000	0.001009	0.000000	0.000000
Std. Dev.	0.321989	0.292222	0.252199	0.278676	0.326055	0.253961	2.885948	4.160866
Skewness	0.539768	1.052759	0.790786	1.142859	0.652238	0.917483	0.089119	9.887456
Kurtosis	1.792571	2.752261	2.935747	3.078441	2.008592	2.828729	1.695280	105.0553
Jarque-Bera	21.86069	37.45481	20.87914	43.58882	22.37120	28.30360	14.45053	90052.73
Probability	0.000018	0.000000	0.000029	0.000000	0.000014	0.000001	0.000728	0.000000

**Where:**

ETH =Ethical CSR index

LEG =Legal CSR index

GOV=Governance CSR index

ENV = Environmental CSR index

ECO =Economic CSR index for firm *iii* in year *ttt*

SIZE<sub>it</sub> =Firm size (control; log of total assets)

LEV<sub>it</sub> = Leverage (control; total debt / total assets)

The descriptive statistics provide an overview of the characteristics of the variables used in the study. Financial Performance (FP) has a mean value of 0.3285, indicating that, on average, the firms in the sample exhibit moderate financial performance. The relatively high standard deviation (0.3220), coupled with the minimum of 0.0000 and maximum of 0.9849, suggests wide disparities in profitability across firms. The positive skewness further reveals that while many firms record low to average performance, a smaller proportion achieve very high financial outcomes. The Jarque-Bera statistic confirms that FP is not normally distributed.

The Economic CSR (ECO) dimension shows a mean score of 0.2963, reflecting modest engagement in economic-related CSR practices among listed firms. The variable is positively skewed and significantly non-normal, indicating that although some firms disclose substantial economic CSR activities, most do so at lower to moderate levels. Ethical CSR (ETH) displays a higher average value of 0.3586, suggesting that firms tend to engage more in ethical responsibility activities such as anti-bribery, fairness, and transparency. Its standard deviation

(0.2522) indicates moderate variability, while the skewness and Jarque-Bera results show that the distribution is not perfectly symmetrical.

Environmental CSR (ENV) has a mean value of 0.2785, implying relatively low emphasis on environmental sustainability initiatives such as emissions management and waste reduction. The high skewness suggests that a few firms perform exceptionally well in environmental disclosure, while the majority exhibit minimal environmental CSR engagement. Governance CSR (GOV), with an average of 0.3226, reflects moderate corporate governance responsibility performance. The dispersion is considerable, and the distribution is right-skewed, indicating that governance practices are unevenly implemented across firms. Similarly, Legal CSR (LEG) shows a mean score of 0.3191, implying that firms moderately comply with legal CSR requirements. Its skewness suggests that although compliance is generally modest, a few firms demonstrate strong adherence to legal CSR expectations.

Firm Size (FSIZE), measured as the log of total assets, has a mean of 4.5592, indicating that most firms in the sample fall within the medium-sized category. The distribution is relatively symmetrical, although the Jarque-Bera statistic indicates departures from normality. Leverage (LEV) reveals a mean of 0.9509, showing that Nigerian listed firms are generally highly leveraged. The standard deviation (4.1609) and extreme maximum value (48.8011) indicate substantial variability and the presence of a few firms with exceptionally high debt levels. The

extreme skewness and kurtosis confirm that leverage is heavily influenced by outliers and deviates significantly from normal distribution.

Overall, the descriptive statistics suggest that CSR engagement across economic, ethical, environmental, legal, and governance dimensions is moderate but highly variable. Financial performance and firm-specific variables also show substantial dispersion, indicating heterogeneity among Nigerian listed companies.

#### 4.2 Correlation Analysis

	FP	ECO	ETH	ENV	GOV	LEG	FSIZE
FP	1.000000						
	-----						
	200						
ETH	0.276221	0.267265	1.000000				
	0.0001	0.0001	-----				
	200	200	200				
LEG	0.418343	0.573097	0.330138	0.477977	0.260701	1.000000	
	0.0000	0.0000	0.0000	0.0000	0.0002	-----	
	200	200	200	200	200	200	
GOV	0.513304	0.375951	0.145235	0.354136	1.000000		
	0.0000	0.0000	0.0402	0.0000	-----		
	200	200	200	200	200		
ECO	0.449493	1.000000					
	0.0000	-----					
	200	200					
ENV	0.418295	0.448474	0.387153	1.000000			

	0.0000	0.0000	0.0000	-----			
	200	200	200	200			
FSIZE	-0.558394	-0.585915	-0.384481	-0.621395	-0.434387	-0.531605	1.000000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-----
	200	200	200	200	200	200	200
LEV	-0.104005	-0.074560	-0.051131	-0.075438	-0.097899	-0.069903	0.089841
	0.1428	0.2940	0.4721	0.2884	0.1679	0.3253	0.2058
	200	200	200	200	200	200	200

The correlation analysis provides insight into the strength and direction of the relationships among financial performance (FP), the five CSR dimensions economic (ECO), ethical (ETH), environmental (ENV), governance (GOV), and legal (LEG) as well as the control variables firm size (FSIZE) and leverage (LEV). The results show that FP is positively and significantly correlated with all CSR dimensions. Specifically, FP exhibits a moderate positive correlation with economic CSR ( $r = 0.4495$ ,  $p < 0.001$ ), implying that firms with stronger economic-related CSR practices tend to report better financial outcomes. Ethical CSR also shows a positive relationship with FP ( $r = 0.2762$ ,  $p < 0.001$ ), suggesting that firms engaging in fair and transparent operations experience improved performance. Environmental CSR is similarly linked to FP ( $r = 0.4183$ ,  $p < 0.001$ ), indicating that environmentally responsible firms are more likely to achieve higher profitability. Governance CSR demonstrates the strongest correlation with FP ( $r = 0.5133$ ,  $p < 0.001$ ), underscoring the importance of governance quality, transparency, and board effectiveness in driving financial performance. Legal CSR likewise correlates positively

with FP ( $r = 0.4183$ ,  $p < 0.001$ ), showing that compliance with laws and regulatory obligations aligns with improved organizational outcomes.

The results also reveal strong interrelationships among the CSR components. ECO is significantly correlated with ETH ( $r = 0.2673$ ), ENV ( $r = 0.4485$ ), GOV ( $r = 0.3760$ ), and LEG ( $r = 0.5731$ ), suggesting that firms that invest in economic CSR tend to perform well across other CSR dimensions. The correlations among ETH, ENV, GOV, and LEG similarly indicate complementarity in CSR engagement, where firms scoring highly in one dimension tend to score well in others. This pattern is consistent with the integrated CSR framework, which posits that CSR components are mutually reinforcing rather than isolated.

Firm size (FSIZE) exhibits a strong negative correlation with all CSR dimensions and with FP. For example, FSIZE correlates negatively with FP ( $r = -0.5584$ ,  $p < 0.001$ ), ECO ( $r = -0.5859$ ), ENV ( $r = -0.6214$ ), and LEG ( $r = -0.5316$ ). These results suggest that smaller firms, rather than larger ones, may be more actively disclosing CSR activities and performing better financially within the sample. This could reflect the fact that smaller firms may rely more heavily on CSR as a competitive strategy or may be more transparent in CSR reporting. Leverage (LEV), however, shows weak and statistically insignificant correlations with FP and most CSR variables, indicating that debt levels are not strongly associated with CSR practices or financial outcomes in this sample.

Overall, the correlation results reveal strong positive associations between financial performance and CSR dimensions, suggesting that socially responsible activities are linked to improved firm performance. The CSR elements also appear highly interrelated, indicating that firms tend to adopt CSR broadly rather than selectively. The negative relationship between firm size and both financial performance and CSR requires further exploration but suggests possible structural or reporting differences among firms listed on the Nigerian Exchange.

### Regression Result

Dependent Variable: FP

Method: Least Squares

Date: 12/09/25 Time: 19:48

Sample (adjusted): 1 199

Included observations: 199 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.304278	0.079163	3.843712	0.0002
ETH	0.132723	0.077674	1.708729	0.0591
LEG	-0.009597	0.090745	-0.105756	0.9159
GOV	0.245505	0.061357	4.001270	0.0001
ECO	0.212547	0.081443	2.609773	0.0098
ENV	0.006962	0.084427	0.082459	0.9344
FSIZE	-0.035218	0.009100	-3.870193	0.0001
LEV	-0.002554	0.004244	-0.601800	0.5480
R-squared	0.432833	Mean dependent var		0.329149
Adjusted R-squared	0.412046	S.D. dependent var		0.322668
S.E. of regression	0.247415	Akaike info criterion		0.083875
Sum squared resid	11.69195	Schwarz criterion		0.216269
Log likelihood	-0.345563	Hannan-Quinn criter.		0.137458
F-statistic	20.82304	Durbin-Watson stat		1.655969
Prob(F-statistic)	0.000000			

Source: Researchers

## Test of Hypothesis

The regression results examine the influence of the five CSR dimensions, ethical, legal governance, economic and environmental, responsibilities on the financial performance (FP) of listed firms, while controlling for firm size (FSIZE) and leverage (LEV). The model is statistically significant, as indicated by the F-statistic of 20.8230 and its p-value of <0.001, confirming that the independent variables jointly explain variations in financial performance. The R-squared value of 0.4328 shows that approximately 43.3% of the changes in FP are explained by the CSR dimensions and the control variables, indicating a moderately strong explanatory power for a cross-sectional panel of firms. The Durbin–Watson statistic of 1.6559 suggests the absence of serious autocorrelation issues in the residuals.

Ethical CSR (ETH) also exhibits a positive relationship with FP ( $\beta = 0.1327$ ), though its effect is marginally insignificant at the 5% level ( $p = 0.0591$ ). This suggests that ethical practices such as transparency, anti-corruption policies, and fairness contribute positively to firm performance, but the significance is not strong enough statistically. Nevertheless, the positive coefficient is consistent with the argument that ethical behavior enhances trust and strengthens stakeholder relationships, which may translate into financial gains over time.

Legal CSR (LEG) displays an insignificant and negative coefficient ( $\beta = -0.0096$ ,  $p = 0.9159$ ), suggesting that legal compliance alone does not enhance firm performance. This finding may

indicate that many firms disclose only the minimum legal requirements, which do not provide additional strategic or reputational benefits.

Governance CSR (GOV) has a strong positive and statistically significant effect on FP ( $\beta = 0.2455$ ,  $p = 0.0001$ ), confirming that governance-related responsibilities such as accountability, board effectiveness, and transparency play a critical role in enhancing firm financial outcomes. This finding reinforces prior evidence that robust governance structures reduce agency problems, improve decision-making quality, and foster investor confidence.

Economic CSR (ECO) has a positive and statistically significant coefficient ( $\beta = 0.2125$ ,  $p = 0.0098$ ), implying that firms with stronger economic responsibility practices such as local value creation, economic empowerment, and investment commitments tend to achieve higher levels of financial performance. This finding aligns with stakeholder theory and supports prior studies that document a positive link between economic CSR and firm performance, showing that economic sustainability creates reputational benefits and competitive advantages.

Environmental CSR (ENV) shows a very small and statistically insignificant coefficient ( $\beta = 0.0069$ ,  $p = 0.9344$ ), indicating that environmental commitments, such as emission reduction, energy efficiency, and waste management, do not have a measurable impact on firm performance in this sample. This may reflect the high cost of environmental investments in the Nigerian

context or the relatively low regulatory pressure and stakeholder demand for environmental disclosure.

Among the control variables, firm size (FSIZE) has a significant negative effect on financial performance ( $\beta = -0.0352$ ,  $p = 0.0001$ ), suggesting that smaller firms in the sample tend to perform better financially than larger firms. This contradicts the traditional economies-of-scale argument and may reflect structural inefficiencies or higher operating costs among larger Nigerian firms. Leverage (LEV) is negative but statistically insignificant ( $\beta = -0.0026$ ,  $p = 0.5480$ ), indicating that firm debt levels do not significantly influence financial performance in this context.

Overall, the regression results reveal that economic and governance CSR practices are the primary drivers of improved financial performance among Nigerian listed companies, while environmental and legal CSR dimensions do not have measurable effects. Ethical CSR shows a positive but marginal influence, and firm size and leverage play distinct and noteworthy control roles in shaping financial outcomes.

#### 4.4 Test Autocorrelation

Breusch-Godfrey Serial Correlation LM Test:  
Null hypothesis: No serial correlation at up to 2 lags

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F-statistic	1.026330	Prob. F(2,90)	0.3625
Obs*R-squared	2.185277	Prob. Chi-Square(2)	0.3353

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Source: Eviews,14.0

The Breusch–Godfrey Serial Correlation LM test was conducted to examine whether the residuals from the regression model exhibit serial correlation up to two lags. Serial correlation in the residuals can bias standard errors and lead to misleading statistical inferences. The test results show an F-statistic of 1.0263 with a corresponding probability value of 0.3625. Similarly, the Obs\*R-squared statistic is 2.1853 with a p-value of 0.3353. Both probability values are substantially greater than the 5% significance level.

Given these results, the study fails to reject the null hypothesis of no serial correlation. This implies that there is no evidence of autocorrelation in the residuals of the model. In practical terms, the absence of serial correlation suggests that the model is correctly specified in relation to the error structure and that the regression estimates are not undermined by correlated disturbances. It also indicates that the explanatory variables have adequately captured the dynamic structure of the data.

The results therefore reinforce the reliability of the regression findings. Since the error terms are independent across observations, the estimated coefficients, standard errors, and hypothesis tests can be considered statistically valid and unbiased. This further supports the robustness of the model in explaining the relationship between financial performance, CSR, and firm-specific characteristics among Nigerian listed companies.

## **Discussion of Findings**

The findings of this study provide important insights into the relationship between the multidimensional components of Corporate Social Responsibility (CSR) and the financial performance of listed companies in Nigeria. The regression and correlation results collectively reveal that CSR does not influence financial performance uniformly; instead, its impact depends on the specific CSR dimension under consideration. This supports the argument in CSR literature that CSR is heterogeneous and its components have varying strategic relevance (Carroll, 1991; Aguinis & Glavas, 2012).

The study finds that Economic CSR (ECO) has a positive and statistically significant effect on financial performance. This suggests that CSR activities that create direct economic value such as local investment, job creation, and economic empowerment enhance firm profitability. This result aligns with the stakeholder theory and supports empirical findings by Orlitzky et al. (2003) and Al-Malkawi & Javaid (2018), who documented that economically-oriented CSR improves operational efficiency, promotes goodwill, and strengthens stakeholder loyalty, leading to better financial outcomes. The strong positive correlation between ECO and FP further reinforces this relationship.

Ethical CSR (ETH) also shows a positive effect on financial performance, although the relationship is marginally insignificant at the 5% level. The positive coefficient indicates that

ethically responsible behaviour such as compliance with ethical codes, anti-corruption measures, transparency, and fair business practices contributes to performance improvement. This partially supports the argument of Sen and Bhattacharya (2001), who assert that ethical conduct enhances trust and stakeholder support. However, the borderline insignificance suggests that ethical initiatives may take longer to translate into measurable financial gains, especially in markets where ethical enforcement is relatively weak. This mixed result is consistent with Frynas and Yamahaki (2016), who noted that ethical CSR outcomes in developing economies are often less pronounced.

The result for Environmental CSR (ENV) reveals no significant effect on financial performance, a finding consistent with studies conducted in emerging markets (e.g., Muhammad et al., 2020). The insignificance may be explained by low regulatory pressure, limited stakeholder demand for environmental disclosure, and the high cost of environmental compliance in Nigeria. Firms may undertake environmental initiatives primarily for legitimacy rather than for strategic financial gains, which could explain the absence of significant performance outcomes.

Governance CSR (GOV) demonstrates a strong positive and statistically significant effect on financial performance, making it the most influential CSR dimension in this study. This finding aligns with agency theory and supports previous studies by Bhagat & Bolton (2008), which show that governance practices such as strong board oversight, accountability mechanisms, and transparent reporting enhance managerial efficiency and reduce agency costs. The positive

relationship also corroborates empirical results from African markets (e.g., Ntim, 2016), showing that investors reward firms that adopt strong governance practices due to increased transparency and reduced operational risk.

In contrast, Legal CSR (LEG) has an insignificant negative effect on financial performance. This suggests that simply complying with laws and regulatory requirements does not create additional financial value for firms. Many listed firms may view legal CSR as compulsory rather than strategic, thereby limiting its potential to influence performance. This finding is consistent with Visser (2006), who argued that in developing countries, legal compliance often reflects a basic obligation rather than a competitive tool, hence its limited impact on firm profitability.

Among the control variables, firm size (FSIZE) exhibits a significant negative relationship with financial performance. This implies that smaller firms tend to perform better financially than larger firms in the Nigerian context. The result contradicts the traditional economies-of-scale argument but aligns with findings from emerging markets (e.g., Fosu, 2013), where large firms are often exposed to higher operating costs, bureaucracy, and inefficiencies. Leverage (LEV), however, has no significant effect on financial performance, indicating that debt levels are not a strong determinant of firm profitability among Nigerian listed companies. This result is consistent with some studies in developing economies where debt markets are shallow and debt usage may not necessarily translate to financial gains (Abor, 2005).

Overall, the findings of this study highlight the differentiated effects of CSR components, showing that economic and governance responsibilities are the most performance-enhancing, while environmental and legal responsibilities do not significantly influence financial outcomes. Ethical CSR plays a positive but weaker role. These results support the argument that CSR can be both a strategic tool and a compliance-driven activity, depending on which dimension the firm emphasises. The findings also reaffirm the importance of governance structures and economically-driven CSR investments in shaping financial success in emerging markets like Nigeria.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

#### 5.0 Introduction

This chapter presents the final synthesis of the study, focusing on the key findings, their implications, and the recommendations for both practice and future research. Building on the analyses conducted in Chapter Four, this chapter provides a comprehensive overview of how the various dimensions of Corporate Social Responsibility (CSR) economic, ethical, environmental, governance, and legal responsibilities affect the financial performance of firms listed on the Nigerian Exchange. The chapter begins with a concise summary of the major findings of the study, highlighting the significant and non-significant relationships observed between CSR activities and firm financial outcomes.

Following the summary, the chapter draws conclusions based on the empirical evidence, linking the findings to theoretical frameworks such as stakeholder theory and agency theory, and positioning them within the context of extant literature. Finally, the chapter offers practical recommendations for corporate managers, policymakers, and stakeholders on how to strategically leverage CSR for improved financial performance. It also identifies avenues for further research to deepen understanding of the CSR–performance nexus, particularly in emerging market contexts.

## **5.1 Summary of Findings**

1. Economic CSR has a positive and statistically significant impact on firm performance
2. Governance CSR also exerts a positive and highly significant influence on financial performance
3. Ethical CSR, although positively signed, is only marginally significant, suggesting that its financial benefits may manifest in the long term rather than immediately
4. environmental CSR shows no significant effect, implying that current environmental initiatives may be compliance-driven or costly in the short run, thereby not translating into direct financial benefits
5. Legal CSR is also insignificant, indicating that merely complying with laws and regulations does not guarantee financial gains unless accompanied by value-enhancing strategies.

## **5.2 Conclusion**

This study examined the influence of the multidimensional components of Corporate Social Responsibility (CSR) economic, ethical, environmental, governance, and legal responsibilities on the financial performance of companies listed on the Nigerian Exchange. Using regression, correlation, and descriptive analyses, the study provides evidence that CSR engagement is not

uniformly beneficial; rather, the effect of CSR on financial performance depends on the specific dimension of CSR being implemented.

The findings reveal that economic CSR and governance CSR are the most influential drivers of financial performance among Nigerian listed firms. Economic CSR activities that enhance economic value creation, community investment, and operational efficiency significantly improve firm profitability. Similarly, governance-related CSR, which strengthens transparency, accountability, and board effectiveness, has a strong positive impact on firm performance. These findings support stakeholder theory and reinforce the view that CSR initiatives which align closely with strategic and value-creating activities are more likely to generate measurable financial benefits.

Ethical CSR also shows a positive but marginal influence on financial performance, suggesting that ethical conduct contributes to improved financial outcomes, although its effects may materialize more gradually in emerging markets where enforcement and stakeholder expectations are weaker. In contrast, environmental CSR and legal CSR have no significant effect on financial performance. This indicates that in the Nigerian context, firms may engage in environmental and legal compliance activities primarily for legitimacy and regulatory reasons rather than as strategic initiatives that enhance profitability.

Regarding firm-specific characteristics, the study finds that firm size has a significant negative effect on financial performance, implying that smaller firms in the sample tend to perform better financially than larger firms. Leverage, however, shows no meaningful relationship with financial performance, suggesting that debt usage does not strongly influence profitability among Nigerian listed firms.

Overall, the study concludes that CSR, when strategically aligned particularly in its economic and governance dimensions can serve as a catalyst for enhanced financial performance. However, not all CSR activities translate into financial gains, especially those driven primarily by compliance or external expectations. These insights reinforce the need for firms to adopt a strategic, value-based approach to CSR implementation rather than treating CSR as a uniform or symbolic activity.

### **5.3 Recommendation**

Based on the findings of this study, several recommendations can be made for managers, policymakers, and stakeholders to enhance financial performance among Nigerian listed companies:

1. Since economic and governance responsibilities significantly enhance financial performance, firms should channel more resources toward activities that strengthen economic value creation such as local investment, employee welfare, innovation, and

transparent governance practices. Strengthening governance structures, enforcing accountability, and improving board oversight will further boost firm value.

2. Although ethical CSR showed a marginal effect, it remains strategically important for building long-term reputation and stakeholder trust. Firms should institutionalize strong ethical codes, enforce anti-corruption policies, conduct periodic ethics training, and encourage transparent reporting to unlock the long-term benefits associated with ethical conduct.
3. The absence of a significant link between environmental CSR and financial performance suggests the need for firms to redesign their environmental initiatives. Companies should adopt cost-effective, innovative, and performance-oriented environmental strategies such as energy efficiency, waste reduction, and green technology investments, which could convert compliance activities into competitive advantages.
4. Legal CSR was found to be non-statistically significant, implying that firms may be engaging in minimal compliance. Companies should go beyond basic regulatory adherence by adopting proactive compliance approaches, such as voluntary disclosure, transparent tax reporting, and internal legal audits, which can indirectly reduce risks and enhance investor confidence.
5. Since firm size was negatively related to financial performance, larger firms should review their operational efficiency, reduce bureaucratic bottlenecks, and adopt modern

management practices. Smaller firms should sustain their agility and innovation-driven practices that drive superior financial outcomes.

6. Firms should enhance the visibility and clarity of their CSR strategies through annual reports, sustainability disclosures, and stakeholder engagement. This could improve investor perception and convert CSR investments into stronger financial performance.

#### **5.4 Recommendation for Further Studies**

While this study provides important insights into the relationship between financial performance, corporate social responsibility (CSR), and firm-specific characteristics in Nigerian listed companies, several avenues exist for future research:

1. Future research could examine the CSR–financial performance nexus in different emerging and developed economies to identify whether the observed patterns in Nigeria hold elsewhere. Comparative studies across multiple countries or regions would provide a deeper understanding of the influence of institutional quality, regulatory frameworks, and cultural factors on CSR effectiveness and financial outcomes.
2. This study used cross-sectional data for the selected period. Future studies could employ longitudinal or panel data designs to capture the dynamic effects of CSR, governance, leverage, and firm-specific factors on financial performance over time. This would allow

researchers to observe lagged effects of CSR investments and governance improvements, which may not be immediately reflected in financial performance.

3. While this study used ROA as a proxy for financial performance, future research could incorporate additional performance indicators such as return on equity (ROE), Tobin's Q, market-to-book ratio, or stock returns to provide a more comprehensive assessment of firm performance. Including market-based performance measures may capture investor perceptions of CSR and governance more accurately.

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## Appendices

	FP	ECONCSR	ECSR	ENVCSR	GCSR	LCSR	FSIZE	LEV
Mean	0.328493	0.296267	0.358614	0.278536	0.322621	0.319083	4.559172	0.950886
Median	0.221507	0.158098	0.313374	0.150680	0.208162	0.246287	3.932002	0.443465
Maximum	0.984964	0.993560	0.993032	0.996996	0.990434	0.974480	9.986380	48.80110
Minimum	0.000000	0.000605	0.001513	0.000504	0.000000	0.001009	0.000000	0.000000
Std. Dev.	0.321989	0.292222	0.252199	0.278676	0.326055	0.253961	2.885948	4.160866
Skewness	0.539768	1.052759	0.790786	1.142859	0.652238	0.917483	0.089119	9.887456
Kurtosis	1.792571	2.752261	2.935747	3.078441	2.008592	2.828729	1.695280	105.0553
Jarque-Bera	21.86069	37.45481	20.87914	43.58882	22.37120	28.30360	14.45053	90052.73
Probability	0.000018	0.000000	0.000029	0.000000	0.000014	0.000001	0.000728	0.000000
Sum	65.69862	59.25346	71.72286	55.70722	64.52427	63.81659	911.8344	190.1772
Sum Sq. Dev.	20.63177	16.99335	12.65727	15.45445	21.15600	12.83471	1657.410	3445.249
Observations	200	200	200	200	200	200	200	200

Covariance Analysis: Ordinary  
 Date: 12/09/25 Time: 19:16  
 Sample: 1 200  
 Included observations: 200

Correlation Probability Observations	FP	ECO	ETH	ENV	GOV	LEG	FSIZ
FP	1.000000 ----- 200						
ECO	0.449493 0.0000 200	1.000000 ----- 200					
ETH	0.276221 0.0001 200	0.267265 0.0001 200	1.000000 ----- 200				

ENV	0.418295 0.0000 200	0.448474 0.0000 200	0.387153 0.0000 200	1.000000 ----- 200			
GOV	0.513304 0.0000 200	0.375951 0.0000 200	0.145235 0.0402 200	0.354136 0.0000 200	1.000000 ----- 200		
LEG	0.418343 0.0000 200	0.573097 0.0000 200	0.330138 0.0000 200	0.477977 0.0000 200	0.260701 0.0002 200	1.000000 ----- 200	
FSIZE	-0.558394 0.0000 200	-0.585915 0.0000 200	-0.384481 0.0000 200	-0.621395 0.0000 200	-0.434387 0.0000 200	-0.531605 0.0000 200	1.0000 ----- 200
LEV	-0.104005 0.1428 200	-0.074560 0.2940 200	-0.051131 0.4721 200	-0.075438 0.2884 200	-0.097899 0.1679 200	-0.069903 0.3253 200	0.0898 0.20 200

Breusch-Godfrey Serial Correlation LM Test:  
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.026330	Prob. F(2,90)	0.3625
Obs*R-squared	2.185277	Prob. Chi-Square(2)	0.3353

Source: Eviews,14.0

### Data for the Study

FP	ECSR	LCSR	GCSR	EconCSR	EnvCSR	Fsize	LEV
0.197952	0.296766	0.197844	0.197952	0.118706	0.098922	5.413896	0.45429

0.013475	0.419699	0.2798	0.013475	0.16788	0.1399	6.792639	0.02448
0.010886	0.152974	0.101983	0.010886	0.06119	0.050991	6.885871	0.26758
0.018658	0.104549	0.0697	0.018658	0.04182	0.03485	6.950967	0.31460
0.014928	0.312969	0.208646	0.014928	0.125187	0.104323	7.024392	0.02883
0.021188	0.341657	0.227772	0.021188	0.136663	0.113886	7.228854	0.04626
0.070123	0.265909	0.177272	0.070123	0.106363	0.088636	9.433373	3.79436
0.061642	0.499776	0.333184	0.061642	0.199911	0.166592	9.575063	0.00496
0.048152	0.218233	0.145489	0.048152	0.087293	0.072744	9.694136	0.48139
0.040746	0.324126	0.216084	0.040746	0.129651	0.108042	9.735282	0.45620
0.03322	0.302615	0.201744	0.03322	0.121046	0.100872	9.809321	0.67873
0.062872	0.430135	0.286757	0.062872	0.172054	0.143378	9.98638	0.03496
0.188267	0.109083	0.072722	0.188267	0.043633	0.036361	7.275746	0.04812
0.02697	0.016575	0.01105	0.02697	0.00663	0.005525	8.127169	0.04668
0.022848	0.364852	0.243235	0.022848	0.145941	0.121617	8.129431	0.04925
0.283007	0.005775	0.00385	0.283007	0.00231	0.001925	7.256479	0.42585
0.04969	0.290195	0.193464	0.04969	0.116078	0.096732	8.166365	0.71319

0.105437	0.048193	0.032129	0.105437	0.019277	0.016064	8.201713	0.57127
0.018963	0.082619	0.055079	0.018963	0.033047	0.02754	9.598584	0.24899
0.012558	0.18971	0.126473	0.012558	0.075884	0.063237	9.799863	0.47056
0.011829	0.096517	0.064344	0.011829	0.038607	0.032172	9.882239	0.82664
0.011022	0.083038	0.055358	0.011022	0.033215	0.027679	6.985011	0.50266
0.01298	0.011153	0.007435	0.01298	0.004461	0.003718	7.098134	0.45969
0.027562	0.336296	0.224197	0.027562	0.134518	0.112099	7.314901	48.80110
0.014588	0.065868	0.043912	0.014588	0.026347	0.021956	6.235499	32.49079
0.014358	0.385195	0.256796	0.014358	0.154078	0.128398	6.325113	0.21246
0.009662	0.163187	0.108791	0.009662	0.065275	0.054396	6.440618	1.28564
0.010816	0.406057	0.270705	0.010816	0.162423	0.135352	6.517127	0.17783
0.013456	0.122395	0.081597	0.013456	0.048958	0.040798	6.600865	0.25503
0.020309	0.433554	0.289036	0.020309	0.173422	0.144518	6.786906	0.46308
0.015412	0.461474	0.30765	0.015412	0.18459	0.153825	6.555252	0.43384
0.016938	0.33873	0.22582	0.016938	0.135492	0.11291	6.616632	0.30190

0.011206	0.166784	0.111189	0.011206	0.066714	0.055595	6.716657	0.41576
0.010855	0.00191	0.001273	0.010855	0.000764	0.000637	6.746243	0.76110
0.019198	0.262106	0.174737	0.019198	0.104842	0.087369	6.866939	0.55749
0.052261	0.182639	0.121759	0.052261	0.073056	0.06088	7.109841	6.42948
0.00598	0.273046	0.182031	0.00598	0.109218	0.091015	8.372868	0.38259
0.012428	0.304244	0.202829	0.012428	0.121698	0.101415	8.466945	0.68022
0.004519	0.487825	0.325217	0.004519	0.19513	0.162608	8.691983	0.12942
0.006184	0.067166	0.044778	0.006184	0.026867	0.022389	8.731483	0.90106
0.002158	0.459996	0.306664	0.002158	0.183998	0.153332	8.707693	0.25064
0.009241	0.366774	0.244516	0.009241	0.14671	0.122258	6.231492	7.34970
0.006852	0.159569	0.10638	0.006852	0.063828	0.05319	8.848162	0.73224
0.00699	0.468227	0.312151	0.00699	0.187291	0.156076	8.986136	0.46028
0.006139	0.46006	0.306707	0.006139	0.184024	0.153353	8.986136	0.15387
0.010635	0.310739	0.20716	0.010635	0.124296	0.10358	9.066146	0.00076
0.010285	0.156338	0.104225	0.010285	0.062535	0.052113	9.156459	0.00516
0.01946	0.139862	0.093241	0.01946	0.055945	0.046621	9.350261	0.00775
0.000902	0.069392	0.046261	0.000902	0.027757	0.023131	6.434826	0.00613
0.024342	0.173033	0.115355	0.024342	0.069213	0.057678	6.058147	0.01256
0.024443	0.324772	0.216514	0.024443	0.129909	0.108257	6.072311	0.15098
0.013327	0.471112	0.314075	0.013327	0.188445	0.157037	6.116865	0.000

0.007736	0.392654	0.261769	0.007736	0.157062	0.130885	6.151079	0.18540
0	0.181939	0.121293	0	0.072776	0.060646	0	0.29010
0.019306	0.018868	0.012578	0.019306	0.007547	0.006289	7.353766	0.31577
0.001124	0.179593	0.119728	0.001124	0.071837	0.059864	6.29908	0.14987
0.003951	0.376732	0.251155	0.003951	0.150693	0.125577	6.339792	0.13083
0.004313	0.330484	0.220323	0.004313	0.132194	0.110161	6.393589	0.20584
4.92E-05	0.462892	0.308594	4.92E-05	0.185157	0.154297	8.400964	1.78363
0	0.132351	0.088234	0	0.052941	0.044117	8.56785	0.31552
0.038767	0.359754	0.239836	0.038767	0.143902	0.119918	6.695083	0.20941
0.044764	0.296981	0.197987	0.044764	0.118792	0.098994	6.735205	0.14617
0.03591	0.457888	0.305259	0.03591	0.183155	0.152629	6.852784	0.10117
0.035615	0.297692	0.198461	0.035615	0.119077	0.099231	6.896101	4.64162
0.027818	0.019146	0.012764	0.027818	0.007658	0.006382	7.024103	0.13958
0.039719	0.218832	0.145888	0.039719	0.087533	0.072944	7.225596	0.60970
0.059796	0.449326	0.299551	0.059796	0.17973	0.149775	7.372868	0.16469
0.008969	0.371721	0.247814	0.008969	0.148688	0.123907	6.03578	0.21534

0.009652	0.110273	0.073516	0.009652	0.044109	0.036758	6.10783	0.01688
0.00898	0.12927	0.08618	0.00898	0.051708	0.04309	6.207297	0.01890
0.011284	0.365964	0.243976	0.011284	0.146386	0.121988	6.264965	0.334645
0	0.155014	0.103342	0	0.062005	0.051671	0	0.070059
0.006199	0.262822	0.175214	0.006199	0.105129	0.087607	6.203915	0.046408
0.263804	0.125162	0.083441	0.263804	0.050065	0.041721	5.103414	0.72485
0.179112	0.273395	0.182263	0.179112	0.109358	0.091132	5.168035	0.519835
0.010685	0.140347	0.093564	0.010685	0.056139	0.046782	6.481303	0.635569
0.016103	0.077234	0.05149	0.016103	0.030894	0.025745	6.498153	0.896146
0.010712	0.107194	0.071463	0.010712	0.042878	0.035731	6.648475	0.387115
0.224364	0.274249	0.182833	0.084648	0.1097	0.091416	7.457201928	0.006931
0.415835	0.1267	0.084467	0.578198	0.05068	0.042233	7.536910533	0.980865
0.12507	0.090549	0.060366	0.60467	0.03622	0.030183	7.525153691	0.403439
0.731728	0.154334	0.102889	0.87298	0.061734	0.051445	7.5278193	0.687859
0.292918	0.105007	0.070005	0.543903	0.042003	0.035002	7.49333116	0.606003

0.42501	0.474585	0.31639	0.947436	0.189834	0.158195	7.556024946	0.87858
0.197578	0.1079	0.071933	0.610745	0.04316	0.035967	7.439795169	0.643613
0.297691	0.393133	0.262089	0.987078	0.157253	0.131044	7.454850955	0.633169
0.969261	0.406022	0.270681	0.85193	0.162409	0.135341	7.419922721	0.430897
0.380465	0.183215	0.122143	0.752782	0.073286	0.061072	6.04811771	0.323826
0.170613	0.4577	0.305133	0.395269	0.18308	0.152567	6.021925734	0.898429
0.396593	0.367141	0.24476	0.798364	0.146856	0.12238	5.930022431	0.742827
0.072677	0.384078	0.256052	0.43704	0.153631	0.128026	5.900877603	0.576618
0.534407	0.397193	0.264795	0.036465	0.158877	0.132398	5.911297733	0.742022
0.787371	0.302499	0.201666	0.260522	0.120999	0.100833	5.923016447	0.165624
0.649276	0.001513	0.001009	0.543042	0.000605	0.000504	5.936143127	0.942446
0.174235	0.048139	0.032093	0.835439	0.019256	0.016046	5.973828627	0.528343
0.788956	0.153488	0.102325	0.930864	0.061395	0.051163	6.044595416	0.318486

0.613503	0.071362	0.047575	0.990434	0.028545	0.023787	6.049895304	0.699251
0.821359	0.291788	0.194526	0.554815	0.116715	0.097263	6.250896245	0.39793
0.535269	0.351245	0.234163	0.401603	0.140498	0.117082	6.233088293	0.166757
0.646537	0.313823	0.209215	0.796163	0.125529	0.104608	6.265699207	0.62036
0.884522	0.258295	0.090326	0.97457	0.749025	0.617476	2.43736642	0.499368
0.530253	0.21676	0.871124	0.103635	0.489733	0.512184	0.35481974	0.430857
0.695586	0.806455	0.675337	0.479942	0.561786	0.619308	2.95483626	0.751107
0.079267	0.578399	0.3962	0.919081	0.425117	0.533582	1.14001099	0.648283
0.651764	0.562566	0.082016	0.407888	0.084142	0.173217	3.92886486	0.408636
0.595528	0.993032	0.182184	0.028809	0.12623	0.870528	1.68380323	0.404466
0.330019	0.983689	0.863577	0.203874	0.924916	0.338883	1.95085051	0.021758
0.275689	0.842921	0.971642	0.020332	0.910445	0.105184	0.51996653	0.567193
0.803199	0.502891	0.086282	0.691003	0.567833	0.996996	3.51359167	0.47028
0.691084	0.287113	0.466678	0.094148	0.896671	0.466599	2.57839726	0.901978
0.841563	0.622735	0.47201	0.417747	0.170523	0.758821	0.00533266	0.96988
0.907915	0.70547	0.533191	0.793337	0.983299	0.479388	2.59341652	0.234591
0.843214	0.991477	0.39206	0.79297	0.281004	0.882763	3.09326531	0.927015
0.251396	0.197488	0.816579	0.150591	0.667447	0.31069	3.65709754	0.871804
0.156715	0.165017	0.040159	0.775456	0.564649	0.456527	3.26640033	0.075702
0.811556	0.7058	0.369293	0.578794	0.1411	0.26655	0.39912213	0.472438
0.075233	0.302063	0.111573	0.684615	0.635942	0.293021	2.04862998	0.237143
0.713955	0.958364	0.317036	0.450245	0.128494	0.194896	0.85681214	0.76546
0.949103	0.627689	0.08391	0.427907	0.847938	0.018349	2.68728311	0.805837
0.445595	0.755064	0.310147	0.049318	0.370077	0.213568	3.17779697	0.830838
0.58401	0.898738	0.705052	0.641362	0.382752	0.312588	3.19696498	0.358257
0.543723	0.39936	0.6461	0.336734	0.042466	0.233716	1.28336125	0.60794
0.921292	0.474019	0.209724	0.19927	0.219437	0.655498	2.26508842	0.3149
0.84804	0.087097	0.497835	0.30635	0.797746	0.167916	2.43202619	0.39832
0.754308	0.051965	0.684024	0.390348	0.627022	0.394788	0.82626684	0.742909
0.752626	0.203234	0.87523	0.988493	0.893536	0.485175	2.63162540	0.112664
0.750538	0.479474	0.321195	0.361365	0.519287	0.07868	1.28063636	0.430348
0.536375	0.672727	0.077087	0.658882	0.002414	0.609333	3.90202055	0.235501

0.726247	0.492963	0.522298	0.489869	0.183375	0.939754	0.40480786	0.016359
0.547946	0.723208	0.029435	0.134864	0.885096	0.293259	1.77999773	0.77481
0.984964	0.296222	0.398431	0.596634	0.143021	0.651293	3.93513919	0.446122
0.420114	0.845877	0.524503	0.147496	0.489458	0.421652	0.81333347	0.858921
0.572118	0.210056	0.333051	0.752657	0.050151	0.139615	2.38143164	0.025215
0.514043	0.115937	0.474511	0.934193	0.343697	0.543456	0.20884111	0.117689
0.113747	0.076099	0.495098	0.952412	0.484094	0.243463	1.18594629	0.281412
0.21865	0.01311	0.909035	0.833686	0.826406	0.571234	3.03042496	0.700703
0.785235	0.780852	0.520888	0.501473	0.569174	0.44644	0.54323964	0.979601
0.420872	0.429951	0.290258	0.978209	0.964587	0.279126	2.24209836	0.899711
0.025744	0.928906	0.681542	0.760712	0.281055	0.227761	1.09649970	0.508989
0.715058	0.365015	0.8161	0.236047	0.67272	0.616708	2.04873428	0.028142
0.245028	0.091241	0.729787	0.752408	0.515453	0.696288	2.26391639	0.614768
0.32413	0.338574	0.655956	0.330095	0.967979	0.887046	1.10093308	0.461693
0.708267	0.760873	0.97448	0.21245	0.404641	0.059125	1.91266246	0.817758
0.82376	0.636953	0.74732	0.552654	0.212861	0.094502	2.49229405	0.785885
0.291101	0.543318	0.491987	0.131119	0.25442	0.956583	1.88432416	0.765274
0.662517	0.318615	0.967583	0.424152	0.740199	0.454125	0.83924556	0.328725
0.677009	0.114924	0.714475	0.327971	0.554918	0.169193	3.78809082	0.177685
0.052198	0.262701	0.556984	0.696914	0.736604	0.323295	3.77154008	0.127455
0.805599	0.629027	0.579914	0.329091	0.626146	0.619174	1.85519804	0.836245
0.668955	0.463933	0.64798	0.703632	0.277311	0.772784	1.32806746	0.505584
0.41937	0.313778	0.350493	0.904395	0.701354	0.803326	2.95819357	0.690728
0.79501	0.042931	0.47188	0.683044	0.96401	0.098072	0.38417709	0.138077
0.924837	0.525344	0.686086	0.378171	0.845272	0.83337	1.56085701	0.219314
0.406397	0.42654	0.16825	0.049523	0.076293	0.511583	1.37731571	0.072322
0.883565	0.13446	0.662399	0.136432	0.630917	0.952726	2.19660304	0.828784
0.308296	0.160206	0.63671	0.264334	0.746519	0.874358	2.14583292	0.568859
0.789101	0.517935	0.167879	0.198261	0.335252	0.151585	3.27631349	0.158727
0.572874	0.619721	0.010596	0.941766	0.714686	0.28068	3.71990378	0.661232
0.119826	0.08873	0.125357	0.163114	0.358506	0.32039	1.76508091	0.901653
0.336299	0.974575	0.946343	0.576459	0.911202	0.730785	3.55895878	0.616643
0.819454	0.580262	0.350914	0.170813	0.967401	0.191021	2.42358641	0.279588
0.760382	0.526317	0.791304	0.757967	0.907341	0.581441	1.90336610	0.527578

0.39904	0.991421	0.175363	0.586343	0.186703	0.497908	1.44247271	0.091841
0.296985	0.177712	0.168899	0.550923	0.02402	0.326842	0.08291699	0.631249
0.236652	0.78779	0.089286	0.255774	0.160137	0.911611	3.85787326	0.796963
0.50842	0.207722	0.459334	0.73149	0.049002	0.419927	2.66844460	0.384698
0.124614	0.783448	0.306577	0.72587	0.342252	0.855164	1.27647976	0.674501
0.8414	0.116416	0.792325	0.213827	0.901491	0.665778	1.47593382	0.518123
0.876067	0.426639	0.646186	0.356607	0.434329	0.238766	2.84864042	0.202025
0.209658	0.602345	0.364459	0.270879	0.312119	0.094824	0.78414614	0.880197
0.809422	0.098759	0.227053	0.258599	0.237648	0.98895	2.31083120	0.836295
0.387193	0.202799	0.314307	0.475165	0.320069	0.171803	1.17516137	0.349074
0.132744	0.671266	0.879547	0.41214	0.547799	0.987249	1.51314003	0.016608
0.369066	0.944602	0.511829	0.228492	0.145921	0.375019	3.00214660	0.084816
0.712052	0.98773	0.137914	0.696516	0.681079	0.281436	2.20815625	0.440808
0.897346	0.623872	0.570792	0.687676	0.442946	0.163995	3.82713608	0.202926
0.207837	0.220965	0.418319	0.616958	0.573716	0.321944	3.79841396	0.614747
0.430068	0.310673	0.853146	0.863128	0.465339	0.3361	3.97944965	0.819806
0.596214	0.250471	0.282524	0.180372	0.416164	0.811492	0.17707265	0.91921
0.451924	0.375343	0.560034	0.274026	0.091853	0.49181	0.56998100	0.867253
0.160195	0.099815	0.887846	0.707045	0.299522	0.559336	1.75829836	0.992316
0.679238	0.765121	0.591097	0.988396	0.008399	0.883652	3.46034590	0.389215
0.394167	0.372068	0.02865	0.887003	0.987766	0.926283	1.11311141	0.588804
0.582466	0.446279	0.278885	0.428663	0.151524	0.433883	3.14375482	5.13E-06
0.358656	0.597959	0.15444	0.005617	0.206804	0.512922	1.70096612	0.150702
0.038206	0.597799	0.077314	0.841867	0.99356	0.153429	0.78178383	0.329806
0.022119	0.591175	0.154749	0.377071	0.005024	0.929876	2.29453402	0.709972
0.351226	0.140109	0.585324	0.351751	0.70465	0.0881	2.48198162	0.597007
0.149544	0.785282	0.66294	0.3472	0.257413	0.836281	1.64073176	0.759727
0.05286	0.262853	0.332244	0.316161	0.157319	0.324014	1.78461131	0.788152
0.164256	0.730685	0.41864	0.018432	0.883799	0.675677	0.79954883	0.642368
0.901238	0.309106	0.265767	0.463609	0.708588	0.073651	0.27482646	0.411711
0.916451	0.362267	0.676169	0.140289	0.798835	0.112896	3.60157082	0.690405
0.982534	0.662267	0.817268	0.339425	0.207503	0.697104	0.52864763	0.058471
0.413849	0.93267	0.611078	0.966682	0.670342	0.361132	0.35744586	0.924493
0.788592	0.031583	0.75009	0.755481	0.899113	0.650735	3.17846893	0.618699

0.27058	0.100861	0.129346	0.952131	0.484845	0.421615	1.08417840	0.086334
0.682459	0.310274	0.480264	0.024321	0.08453	0.155083	1.93025467	0.032519
0.698582	0.023757	0.771463	0.718197	0.569995	0.426642	3.75275320	0.055819
0.108911	0.407245	0.317958	0.183384	0.594329	0.517965	1.23668146	0.394103