

MIDOCEAN UNIVERSITY

Business School

Business Administration

**The Impact of Corporate Governance Practices on Corporate Social
Responsibility (CSR) Performance in Saudi Arabian Listed Non-Financial
Companies**

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2026

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Abstract

Corporate governance describes how the listed nonfinancial companies distribute their power, oversee the management, protect the stakeholders as well as communicate responsibility. Corporate social responsibility refers to the roles that organizations play towards employees, consumers, communities, investors and the environment. The proposal investigates the degree to which board independence, board size, board gender diversity, board expertise, audit committee performance, ownership concentration, and sustainability committees impacts corporate social responsibility performance in Saudi Arabian listed nonfinancial companies. The research design is a quantitative explanatory design based on the panel data collected through the annual report, governance report, and sustainability report. The performance of corporate social responsibility will be gauged on environmental action, employee welfare, customer protection, community involvement, ethical conduct and quality of reporting. The proposed hypotheses will be evaluated with the help of descriptive statistics, correlation analysis, panel regression, diagnostic testing, and robustness analysis. The study deals with fragmented evidence by looking at multiple governance mechanisms in a single integrated model and by making a difference between actual responsibility performance and disclosure. The results will inform boards, regulators, investors, and sustainability managers to find ways of governance that would enhance accountability. The research also serves as an integrated theoretical framework applying agency, stakeholder, legitimacy, and resource dependence viewpoints in the dynamic Saudi business environment and national sustainability agenda.

Effects of Corporate Governance Practices on Corporate Social Responsibility (CSR) Performance of Saudi Arabian Listed Non-Financial Companies.

Introduction

The corporate governance and corporate social responsibility relate in the sense that boards affect how businesses are controlled to oversee the management, safeguard stakeholders, and report social and environmental practices. Corporate governance concentrates on the board structure, monitoring, accountability, ownership, audit oversight, and strategic control. The study by Musa et al. (2025) demonstrates that board diversity, skills of directors, compensation, independence, and the size of the board can influence the disclosure of environmental, social, and governance issues among companies listed on Tadawul. Corporate social responsibility is concerned with the obligations to the employees, customers, communities, investors, regulators and the environment. Recent Saudi experience indicates that ESG disclosure is related to profitability in Saudi-based nonfinancial companies in the framework of Vision 2030, where corporate reporting is becoming more related to financial performance and sustainability expectations (Ali et al., 2025). In Saudi Arabia, this connection has gained more significance as national economic restructuring has led to a greater focus on sustainability, transparency, responsible investment, and value creation over the long term (Musa et al., 2025). Nevertheless, the primary research gap is that most Saudi studies continue to focus on the volume of ESG disclosure instead of experimenting with whether certain governance mechanisms lead to better measurable performance of CSR implementation across stakeholder dimensions. The present proposal thus analyses how corporate governance practices affect corporate social responsibility level performances of Saudi Arabian listed nonfinancial companies by considering responsibility as a quantifiable performance result as opposed to a vague declaration of good behavior. The proposal contains the problem of study,

significance, objectives, questions, hypotheses, past studies, research gap, theoretical basis, methodology, sample, instrument, statistical analysis, limitations and references.

Study Problem

Non-financial companies in the Saudi list of companies are acting in the context of increased sustainability expectations, yet the corporate social responsibility performance is still uneven among companies and industries. Some companies offer comprehensive responsibility information, set up sustainability committees, and report quantifiable environmental or social results, whereas others report less information, which does not demonstrate high stakeholder responsibility. The research issue is whether formal governance practices in listed companies produce stronger CSR performance or whether they mainly create compliance-oriented disclosure. Naim and Alomair's (2024) study shows that non-Saudi directors and directors with multiple appointments can enhance environmental, social, and governance disclosure, while board independence may not always have a significant effect through this Saudi board composition article. This creates uncertainty about whether governance practices actually improve responsibility performance or only satisfy formal requirements. The present state of reality is a divided CSR performance and an uneven quality of reporting, and the desired state of reality is responsible credibility, balanced, comparable, and measurable responsibility performance on the environmental, employee, customer, community, ethical, and reporting front(s). The issue lies within Saudi companies since the increasing focus on quantifiable environmental governance, reporting requirements, and corporate environmental performance indicates that CSR accountability is a topical issue (Soussi et al., 2025). The proposed research focuses on this issue by analyzing the independence of boards, the volume of board members, gender diversity, board expertise, the effectiveness of the audit committee, the concentration of ownership, and the presence of a sustainability committee.

Significance of the Study

Scientific significance

The scientific value of the research is that it has contributed to the theoretical understanding in the area of corporate governance and CSR by incorporating agency theory, stakeholder theory, legitimacy theory, and resource dependence theory into one framework. Musa et al. (2025) demonstrate that the ESG disclosure of the Tadawul-listed companies can be influenced by board diversity, director expertise, compensation, independence, and board size. It addresses a gap in the literature since most of the Saudi studies investigate the board characteristics, audit committee quality, ownership structure, or sustainability committees independently, but not how they interact. The research also enhances conceptual clarity in that CSR is seen as quantifiable performance, but not disclosure volume alone. This difference allows for a more profound analysis, as companies are able to make long reports that lack balanced facts of environmental activity, employee well-being, customer safety, community engagement, responsible behavior, and the quality of reporting. By connecting every governance variable to a theory and CSR dimensions that can be measured, the study offers a comprehensive theoretical framework that can further inform subsequent Saudi and regional studies (Helfaya et al., 2024).

Practical significance

The practical value of the study is in the fact that it leads to evidence that can direct the boards, regulators, investors, sustainability managers, and listed companies. Fayad et al. (2024) demonstrate that the expertise and independence of the auditing committee chair can enhance the ESG disclosure, implying that the governance control can promote more believable responsibility reporting. The findings can guide boards to enhance the process of director selection, committee design, audit oversight, and sustainability oversight. The framework can

likewise assist investors to evaluate whether CSR claims are supported by quantifiable action, equitable coverage of stakeholders and internal accountability. To businesses, the research may facilitate viable enhancements to reporting frameworks, responsibility mapping, internal surveillance, and appraisal instruments that link the practice of governance with social and environmental responsibility. It is also useful when institutions design measuring and evaluating tools, as it can help understand what CSR indicators need to be coded, compared and tracked over time. The framework can also facilitate training of board members and sustainability staff since it determines the type of oversight, expertise and the attention committee which has to be associated with environmental protection, employee welfare, customer protection, community involvement, ethics and quality of reporting. These applications render the study applicable outside the discourse of scholarship as it relates the evidence of governance with evidence on day-to-day corporate decision making and market responsibility among Saudi listed corporations (Metwally et al., 2025).

Study Objectives

General objective:

To examine the effects of corporate governance practices on the performance of corporate social responsibility of Saudi Arabian listed nonfinancial companies.

Specific objectives:

1. To investigate whether board independence has an effect on the corporate social responsibility performances of Saudi Arabian listed nonfinancial companies. This goal concentrates on the ability of independent directors to increase monitoring and minimize the risk of weak or selective responsibility practices (Naim & Alomair, 2024).
2. To evaluate the role of gender diversity in boards in corporate social responsibility performance. This goal takes into consideration whether board diversity that includes

female representation enhances the attention to stakeholder issues in areas like employee welfare, community relations, customer safety, and ethical behaviors.

3. To assess the influence of board expertise on the performance of corporate social responsibility. This goal deals with whether directors who are financially, governance, sustainability-learned, and industry-learned enhance the capacity of the board to oversee responsibility initiatives. It also assists in finding out whether experience contributes to superior reporting rates, reduced risk cognizance, and more assured sustainability choices.
4. To identify the effect of the effectiveness of audit committees on the levels of corporate social responsibility. This goal investigates the relationship between audit committee independence, expertise, size, and meeting activity and the credibility of nonfinancial reporting (Fayad et al., 2024).

Study Questions

1. How does independence of boards affect performance of corporate social responsibility among Saudi Arabian listed nonfinancial companies?
2. How does board gender diversity contribute to corporate social responsibility performance in Saudi Arabian listed nonfinancial companies?
3. What is the role of board expertise in the performance of corporate social responsibility within Saudi Arabian nonfinancial listed companies?
4. How does the effectiveness of audit committee influence the performance of corporate social responsibility of Saudi Arabian listed nonfinancial companies?

Study Hypotheses

Main hypothesis: The corporate governance practices have a statistically significant impact on corporate social responsibility performance in the Saudi Arabian listed nonfinancial companies.

H1: The board characteristics, such as independence, size, gender diversity, and expertise, statistically influence the performance of corporate social responsibility in the Saudi Arabian listed nonfinancial companies.

H2: The effectiveness of audit committees, ownership concentration, and the presence of sustainability committees statistically influence the performance of corporate social responsibility of Saudi Arabian listed nonfinancial companies.

Previous Studies

In the article, Musa et al. (2025) investigated how the board characteristics relate to the environmental, social, and governance commitment of the company listed on the Saudi Stock Exchange between 2021 and 2023. They studied the variables of governance that included board size, gender diversity, board independence, board expertise, and board compensation. With this Saudi board characteristics article, the study has realized that director background and expertise, female participation, and payment had positive connections with environmental, social, and governance disclosure, where the size and independence of the board did not demonstrate considerable affiliation. This result is significant as it implies that not every formal system of governance leads to more effective sustainability. It also demonstrates that the quality of board knowledge and diversity can be more significant than the existence of independent directors (Musa et al., 2025). This evidence has been used to develop the proposed study that considers the performance of corporate social responsibility, as compared to disclosure alone, as well as including audit committee effectiveness, concentration of ownership, and the presence of a sustainability committee.

Fayad et al. (2024) examined environment, social, and governance disclosure and audit committee chair characteristics in the Saudi stock market. Their study relied on the data on forty Saudi nonfinancial companies between 2017 and 2022 and focused on the information

about accounting knowledge, independence, and multiple directorships. The research concluded that the accounting experience and independence of the audit committee chair enhanced disclosure of environmental, social and governance issues, using this Saudi audit chair article. This evidence is important as it is the role of audit committees to monitor the quality of reporting, internal controls, risk information and the credibility of corporate disclosures. In case the leaders of the audit committee are financial experts and independent, they can potentially ask more questions about poor sustainability information and request more reporting (Fayad et al., 2024). The current research builds on this one by quantifying the effectiveness of the audit committee in terms of independence, expertise, meeting activity and size and not just the chair.

Naim and Alomair (2024) investigated the impact of non-Saudi directors and busy directors on the environmental, social, and governance disclosure of Saudi nonfinancial listed companies. Based on 2017-2022, fixed effects regression was adopted using a balanced panel of forty firms. The findings indicated that the non-Saudi directors and those directors with multiple appointments enhanced disclosure, whereas the board independence did not have a significant impact. The usefulness of this finding is that it breaks the notion that independent directors are always beneficial in increasing the sustainability performances. Directors with a foreign background can introduce foreign experience, a wider understanding of stakeholders, and exposure to more sustainable practices (Naim & Alomair, 2024). The proposed research applies this conclusion to justify the incorporation of board expertise, board diversity, and context governing reform, in addition to expanding the analysis to corporate responsibility performance on the basis of various dimensions of stakeholders.

Metwally et al. (2025) applied the measures of environmental, social and governance disclosure and firm value in Saudi Arabia and applied the theories of the moderating effect of audit committee characteristics and sustainability committees. One hundred of the largest

nonfinancial companies on Tadawul during the years 2015-2022 were considered in the study, and eight hundred firm-year observation numbers were obtained. It has been discovered that environmental, social, and governance disclosure positively influenced firm value and that the sustainability committee article enhanced this relationship, as well as the audit committee characteristics and sustainability committees. The relevance of this research is that it demonstrates that sustainability committees and audit control can drive the market to value responsible information. It also helps to argue that the internal governance mechanisms can make the sustainability disclosure more useful and credible (Metwally et al., 2025). The current proposal is different as it assumes that the corporate social responsibility performance is to be the dependent variable and poses the question in terms of the governance mechanisms that generate the stronger responsibility performance.

Yu and Tian (2024) studied the equilibrium of corporate social responsibility, quality of corporate governance and risk of stock price crash of the Chinese listed companies. The authors of the study believe that the indemnification of negative information through balanced responsibility to all stakeholder groups can make information more transparent. The article reveals how the quality of corporate governance has the ability to moderate the impact of responsibility outcomes and the importance of responsibility balance via the CSR balance article. This is applicable since the concept of corporate social responsibility is not supposed to be gauged on the cumulative sum of disclosure. A firm can provide detailed reporting on its community donation and little attention to the employees, customers, or the environment (Yu & Tian, 2024). So, the proposed study encompasses the environmental, employee, customer, community, ethical and reporting aspects to ensure that strength is not masked in one area where there is a weakness.

Liu and Du (2024) tested the impact of analyst coverage on the corporate social responsibility of the Chinese publicly traded manufacturing corporations. In their study, they

discovered that the higher the analyst coverage, the more the companies sought to be more socially responsible, since the companies had a higher level of legitimacy and reputation issues due to external visibility. This analyst coverage and CSR article make the study identify that information gaps could be reduced, more visible to the public, and stronger responsible behavior could be encouraged by the analyst's attention. This is applicable since it indicates that the performance of responsibility is influenced by internal governance structures as well as information pressure. Even though the coverage of analysts is not the primary variable in the proposed research, the article contributes to understanding the significance of transparency and monitoring in corporate responsibility (Liu & Du, 2024). This research will be limited to internal governance due to the fact that board structure, audit committees, ownership, and sustainability committees are more frequently represented in Saudi corporate reports.

Most of the reviewed literature is consistent in revealing that board knowledge, diversity, audit committee expertise, sustainability committees, and external visibility may enhance ESG or CSR-related outcomes. They vary, however, in methodology, context, and measurement, as some study Saudi panel data, others study Chinese firms and some study disclosure or firm value, as opposed to direct responsibility performance. The greatest contradiction is in the aspect of board independence, which is seemingly good in theory but unimportant in some empirical studies conducted in Saudi Arabia. Such a disparity could be caused by the differences in the backgrounds of the directors, institutional background, committee backing, and the outcome based on the disclosure volume rather than balanced CSR performance. The current research thus employs a thematic organization of the past research and takes them a step further by incorporating several variables of governance within a single Saudi model.

Research Gap

The gap in the research relates to the lack of research incorporating governance mechanisms in Saudi sustainability studies. Numerous studies focus on board size, board diversity, audit committee attributes, sustainability committees, foreign directors or ownership arrangements on their own. As Figure 1 depicts, the suggested conceptual framework can position board characteristics, the effectiveness of audit committees, ownership concentration, and the presence of sustainability committees as predictors of corporate social responsibility performance (Basali, 2025). These studies are helpful, but they do not clearly demonstrate whether the one variable of governance is significant when other characteristics of governance are introduced. Board independence can seem powerless when considered independently, yet can be effective when integrated with board experience, audit committee supervision, and the presence of a sustainability committee. This gap is filled by the proposed research through testing the independence of boards, the board size, present female directors, board knowledge, effective audit committee, ownership concentration, and sustainability committee presence in a single model.

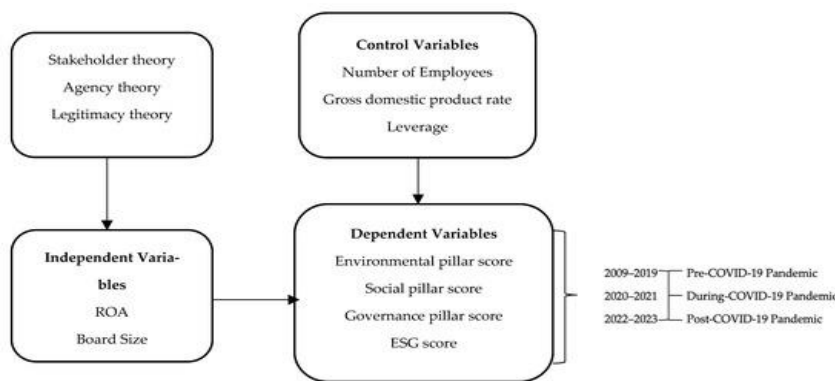


Figure 1: Conceptual Framework Linking Corporate Governance Practices to Corporate Social Responsibility Performance (Basali, 2025)

The other research gap is the common use of volume of disclosure as the primary manifestation of corporate responsibility. Reports are good, although they may not necessarily

reflect the actual performance of the responsibility. According to the study by Yu and Tian (2024), shared responsibility among the stakeholder groups can alleviate the information issues, and the quality of governance is a factor in the responsibility effects. A company can introduce extensive sustainability chapters without specific targets, results, guarantees, and equal treatment of stakeholders. The proposed research answers by dividing the responsibility into environmental action, employee welfare, customer protection, community involvement, ethical conduct, and quality of reporting (Yu & Tian, 2024). The design allows determining whether governance enhances the performance of broad responsibility or solely the more noticeable categories.

Another gap is related to the Saudi institutional context following recent sustainability and governance developments. Saudi Arabia has become more focused on sustainability reporting, market transparency, corporate accountability, and responsible investment with regard to national transformation aims. According to the research of Soussi et al. (2025), the demands of sustainability reporting, the Tadawul environmental, social, and governance index, and external verification preference have resulted in a greater focus on quantifiable environmental governance using this Saudi environmental governance article. Prior research is also not comprehensive in terms of the responses of firms in the light of new sustainability demands. The proposed study thus relies on recent corporate reports, where available, to reflect the latest stage of corporate reporting and practice of corporate governance. These timeframes might aid in demystifying whether the board features, audit committees, sustainability committees, and ownership concentration would be significant in light of the existing sustainability priorities in Saudi Arabia (Soussi et al., 2025).

The other gap is the weak linkage between theory, measurement of governance and responsibility outcomes. Monitoring is explained by an agency theory, wider responsibility by a stakeholder theory, external resources by resource dependence theory and board knowledge

are explained by the legitimacy theory, and external resources are explained by the agency theory. This sustainability reporting theory article by Helfaya et al. (2024) studies the sustainability governance with the application of these theories in explaining the outcomes of reporting by considering the characteristics of boards and governance. The current research combines these theories to explain why each of the governance variables is used and why the responsibility should be gauged on various stakeholder levels. This contributes to minimizing the unsubstantiated assumptions since each variable is linked to a theoretical explanation (Helfaya et al., 2024). Thus, the research bridges a conceptual gap by connecting the performance of governance structures, theoretical explanations, and multidimensional responsibility.

Theoretical Foundations of the Study

Agency theory describes the fact that governance can affect the performance of corporate social responsibility. When there is weak monitoring, managers make daily decisions and might focus on short-term financial performance, selective reporting, or personal interest (Banhmeid & Hamoudah, 2026). As shown in Figure 2, board independence could be framed as a control channel since independent directors could be in a position to reinforce oversight and harmonize managerial action with more comprehensive corporate responsibility consequences. The proposed study means that the weak sustainability assertions should be challenged by the independent directors, audit committees should examine nonfinancial information, and large shareholders can be more vigilant to control the managers (Banhmeid & Hamoudah, 2026). Nevertheless, the agency theory is also aware that concentrated ownership may pose new problems whereby the interests of dominant shareholders may be narrow. This renders ownership concentration a significant variable that ought to be examined empirically regarding direction.

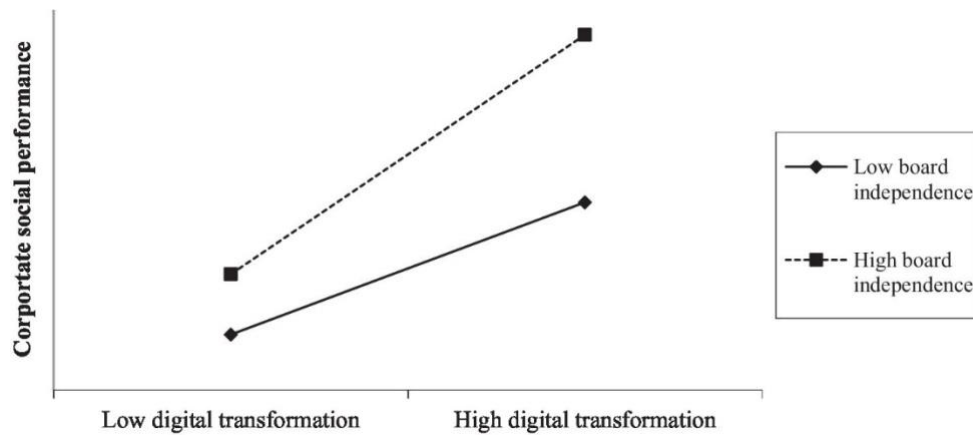


Figure 2: Moderating effect of board independence (Meng et al., 2022).

The theory of stakeholders extends the corporate responsibility beyond shareholders and managers. Companies rely on employees, customers, suppliers, communities, regulators, investors, and the natural resources to operate and be legitimate. This stakeholder and ESG article by Mahboub and Ghanem (2025) explain the nature of the environmental, social and governance aspects as a response to the needs of the stakeholders and may facilitate the performance of the corporation in response. Stakeholder theory applied to the current research justifies the consideration of environmental action, employee welfare, customer protection, community involvement, ethical behavior, and quality of reporting. It also indicates reasons why board gender diversity and board expertise might be important since diverse and informed boards can be aware of more stakeholder interests (Mahboub & Ghanem, 2025). Sustainability committees are also used to ensure that stakeholders' concerns are taken as permanent issues as opposed to being viewed as a one-time public relations exercise.

The legitimacy theory is used to describe why firms want to gain social acceptance through the harmonization of conduct and reporting with social expectations. Companies can also share the environmental and social data to ensure trust, reputation, and consistency with the expectations of stakeholders (Helfaya et al., 2024). The relationship between legitimacy and a broader sustainability governance accountability model can be depicted in Figure 3, which relies on the companies that react to the expectations of the population, the requirements

of compliance and the pressure of stakeholders. This rationale applies to Saudi Arabia due to the fact that sustainability is linked to national change, investor trust, and transparency of the markets (Helfaya et al., 2024). Nevertheless, legitimacy theory is also a caution that disclosure may be symbolic, in the case where firms engage in responsibility language but they are not taking action. The proposed study, thus, places more emphasis on targets, outcomes, policies, spending, assurance, and clear programs of the stakeholders as opposed to the general statements.

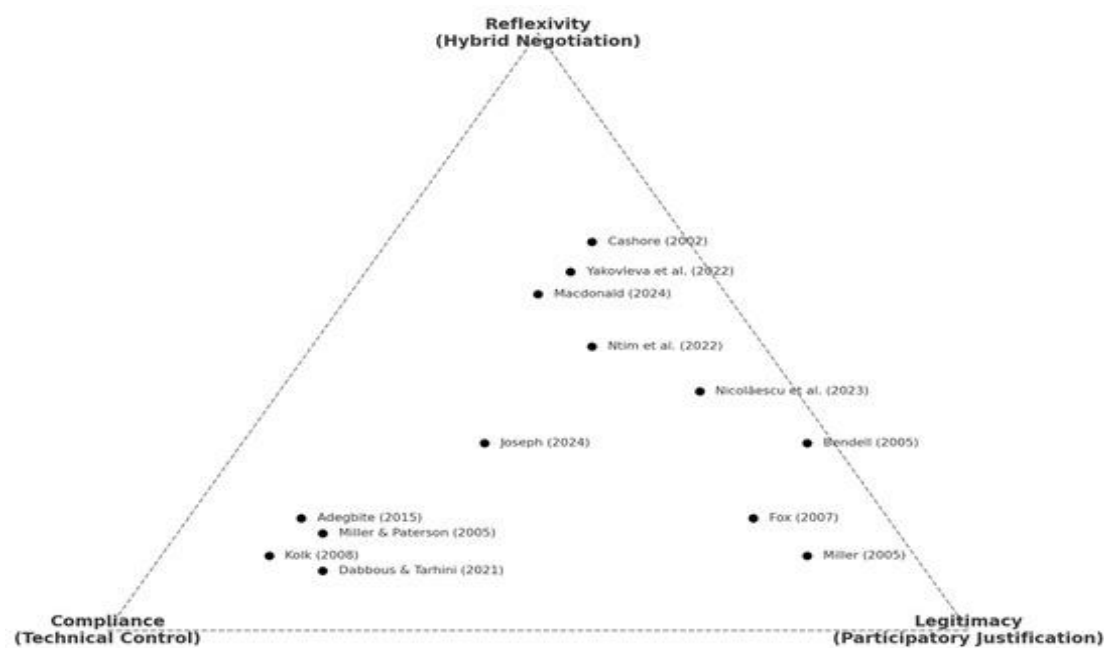


Figure 3: Conceptual mapping of accountability paradigms in sustainability governance (Prencipe, 2025).

Resource dependence theory considers directors as knowledge sources, networks, reputation, and external resources. The boards go beyond monitoring the managers since the boards assist companies in comprehending the risks, gaining access to information, reaching out to the stakeholders, and reacting to the evolving expectations. The research done by Naim and Alomair (2024) indicates that non-Saudi directors and those with multiple appointments have the potential to enhance environmental, social, and governance disclosure by using the resource dependence and board experience article. This reinforces the incorporation of board

size, board knowledge, gender diversity, and external experience as governance characteristics that can enhance responsibility performance. Sustainability knowledge can be more effective in a board that knows the reporting standards, environmental risk, and expectations of the stakeholders (Naim & Alomair, 2024). Nevertheless, a more substantial board can be problematic when more people are not bringing valuable expertise on board.

The research is enhanced by the synthesis of the theoretical frameworks, as each of the theories describes a different aspect of the phenomenon of governance and responsibility. Agency theory justifies subordination, stakeholder theory justifies broader accountability, legitimacy theory justifies popular acceptance, and resource dependence theory justifies knowledge and external resources. The article by Wahyuningrum et al. (2025) indicates that the agency, stakeholder, legitimacy, and resource dependence theories can be applied in conjunction to explain the outcome of governance and sustainability using this integrated governance theory article. This integrated methodology assists in the interpretation of mixed results as independence might not be effective when directors are not professional, and sustainability committees might be stronger when the audit committees promote credibility in reporting (Wahyuningrum et al., 2025). Concentration of ownership can enhance monitoring but undermine the responsiveness of stakeholders at large. The research, accordingly, applies these theories in justifying the choice of variables, measuring of responsibility performance, and analysis of the statistical findings.

Methodology and Research Methods.

The research will adopt a quantitative explanatory and applied research design. The design suits the study since it aims to test whether corporate governance practices that can be quantified determine the performance of corporate social responsibility in Saudi Arabian listed non-financial companies. The article by Hussain et al. (2024) has employed panel data, fixed

effects, random effects, and other regression models to study the relationship between sustainability at firm levels using the Saudi panel data. The quantitative research enables the conversion of the characteristics of governance and indicators of responsibility into numerical variables. The explanatory design is appropriate as the goal is not merely to explain the practices of the company, but also to analyze the strength and direction of the relationship between independent and dependent variables (Hussain et al., 2024). The applied element is also suitable in that the results are meant to inform boards, regulators, investors, and sustainability managers on the need to enhance the practice of CSR governance. Independent variables will be board independence, board size, board gender diversity, board expertise, audit committee effectiveness, ownership concentration, and the presence of a sustainability committee.

The research will be based on secondary sources of publicly available corporate reports. These reports will consist of annual reports, governance reports, sustainability reports, integrated reports, company websites, and disclosures at the Saudi Stock Exchange. The research by Musa et al. (2025) relied on annual reports and content analysis to gauge environmental, social, and governance disclosure of listed companies. Public reports enhance transparency since other researchers will be able to access the same documents and verify the coding choices. The data will be collected by first determining eligible nonfinancial companies listed on Tadawul. The data on governance will be coded using the board sections, committee reports, ownership table, attendance, and use of governance statements (Musa et al., 2025).

Structured content analysis and statistical modeling will be part of the research method. Written corporate disclosures will be translated into numerical scores through content analysis. The Ma et al. (2024) study relies on applying structured indicator systems to obtain sustainability information in the company reports and relating it to the governance conditions. The researcher will come up with a coding sheet that will specify each of the governance

variables and responsibility indicators. The performance of corporate social responsibility will be evaluated using such metrics as environmental action, employee welfare, customer protection, community involvement, ethical conduct, and reporting quality (Ma et al., 2024). The responsibility can be studied as the balanced result of the disclosure since this structure enables the study to focus on the quantity of the disclosure alone.

To enhance validity and reliability, the study will be conducted under obvious procedures. The study objectives, theories, and past empirical studies will be used in developing the coding instrument. Alshareef's (2025) research shows that disclosure must be assessed carefully because quality differs across companies, sectors, and reporting formats through this ESG disclosure quality article. Corporate governance experts, accounting, sustainability, and research methods will judge the instrument to ensure content validity. A small sample of company reports will be used in a pilot test, after which data collection will be carried out in full (Alshareef, 2025). Independent coders can code select reports independently and the differences will be discussed until the coding manual is finalized.

The research will be conducted using a well-organized study process. A set of Saudi-based listed nonfinancial companies will be defined, reports will be retrieved, variables of governance and responsibility will be coded into composite scores, and a dataset will be cleaned. This Saudi regression methods article has employed ordinary least squares, fixed effects, and generalized method of moments to analyze environmental, social, and governance disclosure, firm value, audit committee characteristics, and sustainability committees with this type of research. The panel regression models will be estimated by first deriving descriptive statistics and correlation analysis. The robustness checks will be used to check that the findings are consistent even with other scoring or model options (Metwally et al., 2025). The results will then be interpreted against the hypotheses and the theoretical framework.

Study Population and Sample

The population of the study will be nonfinancial firms that are traded on the Saudi Stock Exchange. The nonfinancial companies are appropriate since they are spread in industries with varying environmental and social responsibility, such as the industrial, energy-related, consumer, service, communication, real estate and materials industries. This article on Saudi nonfinancial firms has demonstrated that samples of nonfinancial Tadawul-listed companies can be used to panel analyze environmental, social, and governance disclosure and profitability. Financial institutions would be excluded since there are special rules of regulation of banks and insurance companies, risk rules, capital requirements, and disclosure expectations. The sample of the study will be limited to organizations whose annual reports, information on governance, and disclosures on responsibility are accessible recently. The unit of analysis was the company year since board structures, committee characteristics, ownership and performance in terms of responsibility may vary with time (Ali et al., 2025).

The sampling method will be purposive since only those companies that satisfy the inclusion criteria will be sampled. A company will be included provided it is listed within the timeframe of the study, it works in a nonfinancial industry, it has available corporate reports, and it has adequate information on governance and responsibility to assist the coding. This Saudi sample design article provides evidence of the viability of this sample design in studying environmental, social, and governance reporting, audit committee organizational attributes, and sustainability committees, as evident in research conducted by Metwally et al. (2025). A firm will not be included in case the reports are unavailable, most years have no governance data, and restructuring makes comparison over time impossible. The sample size will be estimated to be about one hundred companies and up to five hundred company-year observations based on the availability of data (Metwally et al., 2025). The balance of sectors will be considered such that there will not be dominance of results by one industry.

Study Instrument

The research tool will be a structured coding sheet with an elaborated coding manual. The coding sheet will capture the identity of the company, year, industry, size of company, profitability, leverage, age of the company, board independence, board size, gender diversity, board expertise, audit committee effectiveness, ownership concentration, and presence of a sustainability committee. Musa et al. (2025) study has employed content analysis checklists based on reporting frameworks to evaluate disclosure in corporate reports by using the Saudi checklist article. The tool will also capture the performance of corporate social responsibility on environmental action, employee welfare, customer protection, community involvement, ethical conduct and quality of reporting. Every item will be defined and will be scored by a rule to decrease inconsistency (Musa et al., 2025). General statements will be scored less than actions, which are measurable, supported by policy, target, expenditure, outcome, or assurance.

Before the actual data collection, the instrument will undergo a test. A professional assessment will establish whether the items are intended to assess the desired concepts of governance and responsibility. Belouadah's (2026) research supports the use of committee independence, expertise, activity, and size as measurable governance attributes through this audit committee quality article. A pilot test will be done with a few company reports utilized to detect ambiguous language, absent indicators, and difficulty in coding them. To determine reliability, two coders can review a selected report separately. Inter-coder reliability will be determined on the selected items, and where composite indices necessitate internal consistency testing, Cronbach's alpha will be calculated. The last tool will save item-level scores and total scores to allow the researcher to analyze both the responsibility dimensions in detail and the overall corporate social responsibility practice (Belouadah, 2026).

Statistical Analysis Methods

The initial part of the statistical analysis will be data screening and descriptive statistics. Data screening will verify missing values, duplicate records, inconsistent units, impossible values and outliers. According to Table 1, every variable has a predetermined role, measurement procedure, and anticipated data pattern, and the layout coincides with company-level environmental, social, and governance research that relies on descriptive statistics, correlation examination, multiple regression, robust standard error, and other test types (Li et al., 2024). Mean, median, standard deviation, minimum, maximum and frequency of the study variables will be reported as descriptive statistics. Sector and year summaries will also be generated since the performance of responsibility can vary among industries and over time. Initial relationships between variables will then be analyzed using correlation analysis and the possible presence of multicollinearity identified prior to regression analysis.

Table 1

Operational Definitions and Measurement of Variables

Variable	Role	Proposed measurement	Data form
Corporate social responsibility performance	Dependent variable	Composite score from environmental, employee, customer, community, ethical, and reporting dimensions	Continuous score
Board independence	Independent variable	Independent directors divided by total directors	Proportion
Board size	Independent variable	Total number of board members	Count
Board gender diversity	Independent variable	Female directors divided by total directors	Proportion

Variable	Role	Proposed measurement	Data form
Board expertise	Independent variable	Directors with financial, governance, sustainability, or industry expertise divided by total directors	Proportion
Audit committee effectiveness	Independent variable	Index of independence, expertise, meeting activity, and size	Continuous index
Ownership concentration	Independent variable	Percentage of shares held by the largest identified shareholders	Percentage
Sustainability committee	Independent variable	Presence of board or management sustainability committee	Binary measure
Company size	Control variable	Natural logarithm of total assets	Continuous value
Profitability	Control variable	Return on assets	Ratio
Leverage	Control variable	Total liabilities divided by total assets	Ratio
Company age	Control variable	Years since establishment or listing	Count
Industry and year	Control variables	Sector classification and reporting year	Categories

Panel regression analysis will be used to test H1 and H2. The overall score of corporate social responsibility performance will first be the dependent variable, then the models of the environmental action, employee welfare, customer protection, community involvement, ethical conduct and the quality of reporting. As shown in Table 2, every research focus is connected to a predictor, a direction of a hypothesis, and a statistical test, and this methodology is similar to Saudi environmental, social, and governance research with panel data models of listed companies (Hussain et al., 2024). Under H1, the board characteristics are likely to exhibit high impacts. H2 will test audit committee effectiveness, ownership concentration and presence of sustainability committee since their effects might vary with their ability to enhance oversight, monitoring and coordination of responsibilities. The regression models will manage the company size, profitability, leverage, age, industry and the year.

Table 2

Hypotheses, Research focus and Statistical Tests

Hypothesis	Research focus	Main predictor	Statistical test
H1	Board characteristics and CSR performance	Board independence, board size, board gender diversity, and board expertise	Panel regression coefficients and dimension models
H2	Oversight and ownership mechanisms and CSR performance	Audit committee effectiveness, ownership concentration, and	Panel regression coefficients, interaction

Hypothesis	Research focus	Main predictor	Statistical test
		sustainability committee presence	tests, and robustness checks

The analysis will be done in comparison to pooled regression, fixed effects regression, and random effects regression. The pooled regression will be used to get a baseline, and the fixed effects will help in controlling for the stable company characteristics which remain unchanged over time. Model selection will be purpose-based, decision criteria, and expected contribution, as shown in Table 3, and this method is supported by the research that applied the generalized method of moments and data on company reports to investigate the relationship between governance, green innovation, and sustainable performance (Arif et al., 2026). Random effects will also be taken into consideration, provided that their assumptions are verified by diagnostic tests. The Hausman test will assist with determining which approach is more suitable: fixed effects (or random effects). It can also test the predetermination of governance structures over the outcomes of responsibility by lagged governance variables.

Table 3

Proposed Panel Regression Models and Decision Criteria

Model	Purpose	Decision criterion	Expected contribution
Pooled regression	Establish initial baseline	Overall model significance and coefficient direction	Preliminary relationship evidence

Model	Purpose	Decision criterion	Expected contribution
Fixed effects model	Control for stable company characteristics	Significant company effects and diagnostic support	Within company evidence
Random effects model	Estimate company and time variation efficiently	Hausman test supports random effects	Combined company and time evidence
Lagged governance model	Examine temporal ordering	Governance variables precede responsibility performance	Stronger directional interpretation
Dynamic model	Address persistence and possible endogeneity	Valid instrument and serial correlation tests	Robustness evidence
Dimension models	Test separate responsibility areas	Consistency across environmental, employee, customer, community, ethical, and reporting models	Stakeholder specific findings
Interaction models	Test whether committees strengthen board effects	Significant interaction coefficient	Conditional governance evidence
Nonlinear board size model	Test resource benefits and coordination costs	Significant squared board size term	Identification of optimal

Model	Purpose	Decision criterion	Expected contribution
			board size effect

Diagnostic and robustness tests will enhance the credibility of the analysis. Multicollinearity between the governance variables will be evaluated with the help of variance inflation factors. Research on environmental, social, and governance validates the application of strong standard errors, subgroup research, and alternative variable tests to verify that the results will not change when using alternative specifications (Li et al., 2024). The appropriate tests to assess heteroscedasticity will be developed to show that error variance is constant and in cases where necessary, robust standard errors can be utilized. Robustness tests will involve alternative responsibility scoring, sector analysis, winsorized financial controls, lagged predictors, and models that exclude firms with abnormally limited disclosure. The coefficient direction, effect size, statistical significance, confidence intervals, theoretical consistency and model-to-model stability will be used to interpret the results.

Study Limitations

Human Scope

The research will be limited to nonfinancial corporations based in Saudi Arabia and having easily accessible annual reports, governance reports, sustainability reports, and integrated reports or other forms of public disclosure at the time of the study. It will not cover financial institutions, small unlisted firms, or firms with large amounts of missing governance data due to differing regulations and disclosure statuses of the listed nonfinancial firms. The

approximate sample will consist of one hundred listed nonfinancial firms and up to five hundred company-years, based on the availability of reports (Naim & Alomair, 2024). Such a human coverage enhances the reliability of the samples, yet it restricts the externalizability of the findings to banks, insurance companies, small businesses, and small organizations.

Spatial Scope

The geographical region will be the Kingdom of Saudi Arabia, with specialisation in the Saudi Stock Exchange-listed companies. This spatial focus is appropriate due to the unique environment of Saudi-listed companies in terms of governance and ESG reporting. Naim and Alomair (2024) demonstrate that the role of board characteristics in environmental, social and governance disclosure can be enhanced through the implementation of governance reform, implying that institutional context matters when applying Saudi evidence. The results are unlikely to be applicable to other companies in other countries due to the differences in national regulations, investor expectations, culture, market structure and sustainability reporting practices.

Time Scope

The research will cover the recent company-year observations, as far as possible, based on the data availability. The significance of this is that governance and sustainability reporting practices have been given a greater focus in Saudi Arabia during this period. The main time constraint is that the impacts of governance can evolve beyond the time studied because regulations, investor pressure, and sustainability disclosure standards are constantly evolving (Jiang & Han, 2025). As such, the results will indicate the chosen time frame instead of all the upcoming phases of Saudi governance and CSR evolution.

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