

The impact of sustainable development on the financial performance of organizations: Substantiating the effectiveness of investments

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ABSTRACT

The paper assesses the influence of sustainable development (SD) on an organization's financial performance to determine its effectiveness in improving enterprise financial indicators. Data were collated and analyzed from a study sample of 93, using an enumeration sampling technique on the two firms under study. Findings indicated a negative association between return on equity and SD practices. A significant positive association exists between SD practices and firm size, suggesting that larger firms adopt more sustainable practices. No significant association was found between earnings per share and SD practices. The study recommended that sustainability reports should be made mandatory through legislation, and that the government should allow tax credits and other incentives for corporate bodies that engage in practices that support sustainability, to encourage them to contribute more to SD.

Keywords: earnings per share, financial performance, investments, return on equity, size of firm, sustainable development

INTRODUCTION

To a large extent, sustainable development (SD) in the context of financial institutions has become a topical issue (Ramnaraina & Pillay, 2020). What is of interest to organizations is SD to satisfy customers' needs, protect the environment and society through the efficient use of resources, and consider limited resources (Gallagher & Yuan, 2021; Shuang et al., 2020). In determining an organization's operational location, there must be an understanding of environmental safety standards (Lutsenko et al., 2023; Ratov et al., 2022).

In response to growing pressure from customers and regulators, diverse financial institutions are undergoing operational transformations to achieve sustainability (Orlov et al., 2020). In this context, it is widely acknowledged that financial institutions have a duty to promote SD.

Banks must consider sustainability issues when designing new products to prevent an adverse impact on the

environment and society. For instance, providing funds to firms that pollute the environment could result in further environmental damage, thereby increasing banks' exposure to financial deficits.

According to Maside-Sanfiz (2024), the financial risks can be categorized into direct (exposure to legal liability in relation to pollution created by borrowers), indirect (difficulty in borrowers fulfilling loan repayment as a result of hike in responsibilities resulting from damage caused to the environment) and reputation (unpleasant public relations as a result of transacting business with firms whose activities are not friendly to the environment).

To prevent these scenarios, some banks now implement strategies to address sustainability challenges, such as granting loans for green investments and manufacturing environmentally friendly products (Kenza et al., 2025).

To achieve congruence of interests between organizations, society, and the environment, organizations must consider measuring the financial performance (FP) of their activities and their effect on the operating environment. While

improving processes, stakeholders and researchers have tried to identify pertinent FP areas, including productivity, profitability, and market share. This thus enhances the environmental, economic, and social outcomes, with potential for organizations to understand their financial status before making financial decisions (Namozov et al., 2024). Wayan et al. (2021) and Kalantayevskaya et al. (2022) identified customer reviews as essential to decision-making and to overall performance assessment.

The onus is also on the government to give recognition to an adoptable strategy to achieve SD on the national scene through relevant policies while inculcating issues on the environment in the sectors of the economy, appraisal and endorsement of national strategy towards SD and provision of financial and technical support to stakeholders to attain SD (Harjoto, 2017). This aligns with Byelikova et al. (2024), who explain that when the government's attention is unevenly distributed, development in an area will be slower than in other parts of the country.

Yehorycheva et al. (2019) agreed that challenges confronting firms in the banking sector include government economic policy implementation, which is occasioned by restrictive monetary policy. Also, Akimova et al. (2024) concluded that a positive correlation exists between financial data protection, regulatory compliance and user satisfaction. It is therefore essential to improve regulatory and state policy frameworks in development to improve FP (Dobrovolska et al., 2023).

One of the United Nations' key responsibilities is to address cultural, humanitarian, economic, and social challenges through various programs, conferences, and committees. The United Nations has developed international legislation on SD and the environment (Mbuti et al., 2024). In support of sustainable economic growth, poverty eradication, and SD, the United Nations' role in fostering sustainability remains germane (Montiel et al., 2021).

The World Tourism Organization (WTO) plays a crucial role in supporting stakeholders in achieving SD across various sectors and promoting tourism. The function of the WTO is to enhance synergy with international organizations to improve tourism and development plans (Stojanovska-Stefanova et al., 2019).

World Health Organization (2022) is concerned with environmental issues that may impact human health, such as climate change and ozone layer depletion. World Health Organization (2022) has implemented an international programme to ensure that chemicals are well secured, thereby protecting human health.

Also, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has contributed to SD by issuing recommendations that serve as guides for countries. UNESCO has also published an educational program focusing on the international environment, implemented in collaboration with non-governmental organizations and specialized government agencies.

In this vein, this study assesses the influence of SD on FP in organizations, while addressing its economic, social, and environmental aspects.

To realize this, this research examines the answers to the following inquiries:

1. What association exists between SD practices and the return on equity (ROE) of the firm?
2. Is there a significant association between SD practices and the size of the firm?
3. What association exists between SD practices and earnings per share (EPS)?

The broad study's objective is to assess the impact of investments in SD on the FP of organizations and determine the effectiveness of such investments in improving financial indicators of enterprises. However, the objectives specific to the study are to

- (1) identify the relationships between SD practices and the ROE of the firm;
- (2) assess the relationships between SD practices and the size of the firm;
- (3) evaluate the relationships between SD practices and EPS.

The following hypotheses were defined for the research:

- H1.** There exists no substantial association between SD practices and the ROE of the firm;
- H2.** There exists no substantial association between SD practices and the size of the firm;
- H3.** There exists no substantial association between SD practices and EPS.

LITERATURE REVIEW

Sustainable Progress of Development

A paradigm shift towards sustainability in the banking sector has been observed in recent years, prompting global concerns about environmental degradation and climate change (Saif-Alyous & Alshammari, 2025). The role of banks as financial intermediaries is crucial in fostering a responsible environment by adopting green banking practices. These practices aim to reduce the ecological impact of banking activities while encouraging responsible investment and lending.

The practices entail digitization, eco-friendly operations, the institution of green credit policies, and stakeholder engagement (Siddik et al., 2024). Green finance is strategic in ensuring that financial resources are channeled to sustainable projects and low-carbon sectors, in alignment with environmental goals and economic development (Dykha et al., 2021; Ma et al., 2024). Sustainability is marked by an efficient green economy, as evidenced by reduced energy consumption and reduced emissions and pollution (Liu et al., 2020).

Researchers have made unending efforts to define SD in diverse capacities. They explain SD as balancing economic development and environmental considerations for future generations. It is a deliberate effort to create economic, structural, and social changes to achieve sustained development and the continuous improvement of citizens' standard of living, in line with the national will (Sopronenkov et al., 2023). Based on the definitions, it can be deduced that

SD entails balancing individual and societal needs by creating avenues for individuals to live a desired life within the confines of environmental standards that society reasonably sets. The three aspects of SD are considered below.

Environmental development aspect

Globally, there is a surge in environmental disasters. This includes significant environmental challenges, such as biodiversity loss, global warming, desertification, population growth, and other pressing environmental issues, which have generated interest in SD (Oderiy et al., 2024; Romaniuk et al., 2025). Introducing innovative technologies should satisfy the energy demands of economies without harming individuals, society, or the environment, while concurrently improving energy efficiency (Tymoshenko et al., 2023).

According to Hryhoriev et al. (2024), to contribute to SD, mining operations should consider environmental impacts in their operations and approaches. Therefore, SD is understood as the association between development and the environment (Makhoul & Ghanem, 2023).

Economic aspect

The advocacy is that goods and services produced should continuously meet human needs without adverse effects on the production environment or consumption. The goal is to avoid wasting natural resources by efficiently meeting economic requirements. It must be done while curtailing the release of waste in solid or liquid form, which can cause environmental pollution.

The central aim of economic development is to improve the income of a country, achieve a better living situation for persons residing in a society, reduce gaps in status or class differences, while fitting into the configuration of the national economy such that the industrial and commercial sectors of a nation will be able to deliver value to its populace. Stender et al. (2024) added that economic development is better and more quickly achieved when knowledge is transferred, access to state-of-the-art technologies is provided, global best practices are adopted, and profitable strategic collaboration with firms around the globe is pursued, as well as when business is driven by technology and educational institutions.

Therefore, the economic aspect of SD relies on the efficient use of natural resources and the implementation of monetary and fiscal policies as essential components of economic growth, channeling investments into projects that foster it (Saienko et al., 2025).

Social development aspect

Healthcare, water, education, and a secure environment are paramount for a community to be habitable. Effective role-play by organizations should acknowledge diverse social and cultural heritage and protect workers' rights, empowering individuals to chart their futures (Mihajlović & Djordjevic, 2022).

Fulfilling the obligation of social development involves mitigating poverty within a timeline set by each country, supporting the workforce as an objective of states' public policies, promoting social integration by advancing human rights, encouraging gender equality, providing education for community members, and easing access to health insurance.

As noted by Yehorycheva et al. (2020), companies must align within the innovation ecosystem to deliver social value to consumers.

FP

A germane area of performance measurement in commercial banks is assessing FP, given its stability in guiding stakeholders in investment decisions (Eccles, 1991).

The concept of FP describes the bank's current situation and modus operandi, developed to achieve the designed objectives regarding revenue, sales, net wealth, and liabilities (Gladstone & Gladstone, 2022).

It indicates the effects of bank structure and policies as reflections of effectiveness and efficiency. According to Ratnovski (2013), the performance of banks is reflected in the indicator as profitability, which is the essence of business and related activities. Revenues are collected through efficient use of company resources. FP analysis will guide management control, business development, and asset acquisition decisions (Kuczabski et al., 2023).

Mishchuk et al. (2021) further clarify that if improving economic security is the goal of management decisions, there will be a consequent improvement in stakeholder security, thereby enhancing performance. Evaluating performance highlights the organization's financial accomplishments accumulated throughout a given period.

Such achievements can also serve as a basis for comparing companies operating within the same industry. By utilizing financial ratios and market indicators, it is possible to periodically assess shareholder value through accurate FP evaluation (Zeitun & Tian, 2022).

Organizations measure the FP using absolute and relative metrics, including administrative and operational expenditures, revenue, and income. A variety of indicators can be used to evaluate performance, including ROE, size of firm, and EPS.

SD and FP

Prior studies investigated the association between dimensions of SD and FP. As Lassala et al. (2020) identified, environmental and social variables affect the FP of firms, which are return on capital and return on assets (ROA). Numerous studies have found that firms' investment in corporate social responsibility, such as reducing pollution and adopting energy-saving technologies, has a direct, noticeable impact on performance (Margolis & Walsh, 2021; Santis et al., 2020).

In the opinion of Garriga and Mele (2021), illustrative theories of social responsibility are associated with higher levels of FP. However, objective testing of the relationship between both variables remains unestablished (Garcia-Castro et al., 2020).

Vijfinkel et al. (2021) established a direct link between environmental sustainability and the performance of small and medium-sized enterprises. When firms adopt reuse policies, their profits improve. Furthermore, when organizations pursue policies to reduce pollution, their financial returns increase (Kravchenko et al., 2024). According to Adams et al. (2022), a good reputation and brand loyalty can

be built in the long term through efforts to achieve sustainability, thereby maximizing equity holders' wealth.

Regarding the negative influence of sustainability on FP, Indriastuti and Chariri (2021) argued that a business's primary obligation is to be socially responsible in its resource management and involvement in activities aimed at increasing profits. Firms engaging in sustainable practices incur higher expenses, which, in turn, enhance their ability to achieve a positive financial outcome (Alshurideh & Sukkari, 2024). On this basis, investment made by business leaders that is to the disadvantage of clients, staff, and shareholders is an abuse of the firm's resources. Angela and Sari (2023) suggest that an organization's social responsibility activities have an unfavorable effect on FP.

Farid et al. (2022) examined the relationship between sustainability management practices and measures of business FP, such as sales growth and return on investment (ROI). The study reveals that environmental management practices (EMPs) are positively associated with a series of performance measures. Also, Piwowar-Sulej (2021) agrees that a positive relationship exists between FP and social performance.

Indriastuti and Chariri (2021) found a positive influence of sustainability performance on ROE, return on sales, and ROA, but with an insignificant influence on growth. Most of the time, sustainable activities are viewed as a waste of organizational resources that could be better invested in viable projects or distributed as dividends to shareholders (Leviticus et al., 2025).

Theoretical Reviews

Stakeholder theory

The stakeholder theory (ST) of contemporary firms was first proposed by Freeman (1999). ST explains that the essence of a business is to create value as much as possible for stakeholders (Freeman, 1999). That is, beyond the organization's goal of profit-making, firms must be socially responsible. The theory stands in opposition to the prevailing ideology that a company targets profit accumulation for redistribution to shareholders. As stated in an autonomous society, the only social responsibility of business is to commit its resources and undertake activities scheduled for profit maximization. The argument is that when managerial attention and interests are devoted to activities other than those of investors, there is a breach of trust that definitely reduces shareholders' welfare.

ST is based on the idea that firms have diverse stakeholders, identified as individuals and groups with interests or benefits in the business's continued existence and profit-making. In this argument, there is also the standpoint that stakeholders have a right to be informed about how the organization's activities or operations affect them. As noted, ST assumes that the outcomes of initiatives on organizational sustainability must result in high FP.

Legitimacy theory

The theory of legitimacy was propounded by Mark C. Suchman in 1995, with an enlightening clarification: legitimacy is a generalized assumption that a firm's actions are

proper, appropriate, or desirable within societal definitions, norms, beliefs, and values.

The theory postulates that businesses are bound by a social contract under which firms agree to perform diverse social actions in exchange for achieving corporate objectives and continuing as a going concern. The concept refers to a set of societal expectations regarding a firm's business conduct. The assumption is that society allows firms to continue operating as long as societal expectations are satisfied. As Lindblom identified in 1994, legitimacy stems from the compatibility of a firm's value system with that of society. In this light, SD is perceived as a strategy firms use to gain societal approval.

Empirical Reviews

Lehenchuk et al. (2023) examined how sustainability reporting affects FP, focusing on firms in Turkey's leather, apparel, textile, tobacco, beverage, and food industries. Their analysis included reports on sustainability from forty-eight (48) firms quoted on Istanbul's Stock Exchange market for the year 2022.

The sustainability of practices was assessed using the sustainability reporting disclosure quality index (SRDQI) as a general index, along with three specific sub-indices: corporate governance disclosure quality index (CGDQI), environmental disclosure quality index, and social disclosure quality index. To examine the association between sustainability practices and FP, we developed two regression models, yielding a direct evaluation of eight separate models.

The findings reveal that SRDQI has a significant effect on all FP measures analyzed. Only CGDQI has a significantly positive effect on the assets turnover ratio among the partial indices. The analysis of control variables reveals that different FP measures are influenced differently by company size, age, industry sector, and capital structure. Ultimately, the study offers recommendations to enhance the institutional framework for sustainability reporting among Turkish firms.

According to an examination by Montabon et al. (2020), there is a link between financial indicators (ROI and sales growth) and sustainability management. Their study reveals a positive correlation between different EMPs and several firm performance indicators, a finding supported by the theories of slack resources and good management.

Using a survey-administered questionnaire, Fauzi and Idris (2020) examined variables related to control systems, corporate FP, organizational structure, and business strategy. Their study confirmed a positive association between corporate social performance and FP (Wang & Chen, 2015). López et al. (2021) established a link between corporate social responsibility and Dow Jones sustainability index policies in their analysis.

Also, Hussain et al. (2021) reported on the sustainability of a list of 100 top-performing companies in the USA, focusing on governance disclosure and environmental and social indexes. Their outcomes show that none of the ESG parameters revealed a substantial relationship with FP, as assessed by accounting metrics (RONW and ROA) and market-based performance (Tobin's Q) (Wang, 2024).

Sustainable activities are often viewed as a misuse of resources within an organization that could be allocated to

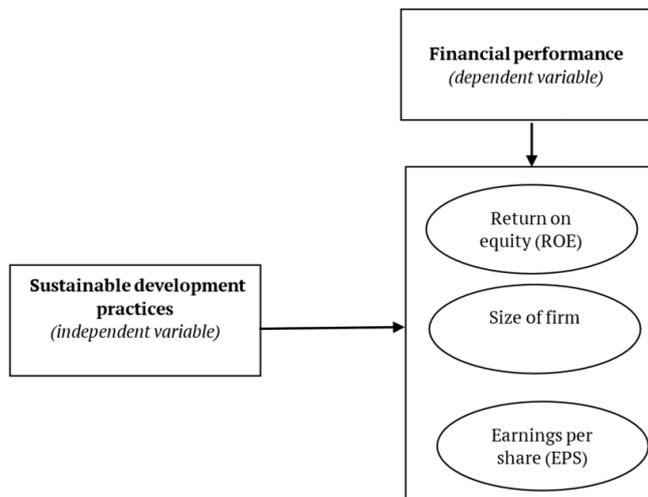


Figure 1. A framework expressing the relationship between SD and FP (Source: Authors' own elaboration)

other projects or investments or returned to shareholders as deemed appropriate (McWilliams et al., 2020). Inoue and Lee (2019) investigated companies across four tourism-related sectors (casinos, hotels, restaurants, and airlines) and divided CSR into five aspects.

Their study revealed that the impact of each sustainability aspect varied by industry, with not all five identified aspects positively influencing profitability in the short- and long-term, as assessed by Tobin's Q and ROI.

Focusing on the banking and energy industries, Nunes et al. (2019) found no substantial difference between sustainable and non-sustainable companies when assessed using accounting metrics like RONW, ROI, net margin, and asset turnover.

This model represents the inter-relationship between SD and FP. **Figure 1** identifies ROE, firm size, and EPS as measures of FP in sustainable practice. FP is a variable that depends on SD in this study.

MATERIALS AND METHODS

This study employs a survey design. The study population comprises employees from Juli Plc and Beta Glass Plc, both located in Lagos, Nigeria, with employee populations of 19 and 74, respectively, for a total of 93 (Nigeria Exchange Group, 2025). Given the tiny population size, the enumeration sampling technique is considered suitable for this study, as it allows the entire population of interest to be enumerated. Hence, the sample size for this study is 93. Data are analyzed using descriptive statistics, including mean, standard deviation, and correlation (Shvedun & Khlamov, 2016). Ethical considerations were duly complied with informed consent was obtained, the researcher undertook to use the data solely for research purposes, and participants' personal details would remain anonymous. This study uses published annual reports as secondary data. This is because the annual report declaration is the avenue through which companies disclose sustainability performance. The annual reports of the selected firms cover the period 2020 to 2024. The justification for the

periods under consideration was the increased interest and awareness in issues of SD during those periods.

Operational Measures of Variables

The dependent variable in this study is SD. The sustainable development index (SDI) is used as an indicator of sustainability performance. SD performance is categorized into environmental, economic, and social dimensions. Statutory guidelines for the preparation of financial statements govern listed companies. Guidelines for global reporting initiative were employed as a framework of six primary indicators of social performance; fair opportunity, diversity, safety and health of customer, employee education and training, occupational health and safety, employment and six categories of indicators for environment performance such as; emissions, system of managing the environment, biodiversity, waste, energy and water. The SDI was determined as: Total quality score/total occurrence. The proxies deployed for performance are EPS, firm size, and ROE. EPS refers to the profit of a firm after deducting aggregate expenses by the number of outstanding ordinary shares.

The proxy for firm size is a company's total assets (current and non-current) for a financial year. ROE measures the profit owners earn on their investments. It is expressed as net profit divided by shareholders' equity. Researchers such as Dalbor et al. (2004) and Setiadharm and Machali (2017) had considered total assets as a proxy for firm size. The proxies were also considered for this study because the researchers believe they are more detailed in evaluating corporate performance.

Techniques of Data Analysis

In this research, correlation analysis was employed to establish possible associations between the dependent variable and the explanatory variables. However, the predictive power of the variables is not addressed by correlation analysis. Therefore, multiple regression techniques were used for the analysis. Multiple regression analysis is appropriately used to investigate the effects of independent variables on the dependent variable. The specified regression model guided the analysis. The t-test statistic was used to test hypotheses at 5% level of significance.

RESULTS AND DISCUSSIONS

Table 1 presents the summary of the regression analysis. Based on this regression summary, the R-value indicates a positive association of 55.5%. The R^2 value of 0.30 indicates that the model explains 30% of the variation in SDI. The adjusted R^2 of 24% supports this.

The calculated F-statistic of the overall regression (4.485) is greater than the critical value of 2.275, i.e., $F\text{-cal} (4.485) > F\text{-tab} (2.275)$, with a p value of 0.01, which is less than the 5% significance level, indicating that the overall regression is significant at the 5% level.

The regression model provides a better fit and better predictions of the dependent variable. Therefore, the chosen explanatory variables jointly clarify the variation in the dependent variable.

Table 1. Summary of regression analysis

Variable	Coefficient	T-statistics	Significance
SRI (constant)	0.950	2.061	0.047
ROE	-0.468	-2.469	0.018
Size of firm	0.044	2.458	0.019
EPS	0.013	1.430	0.162
R	0.555	F-statistic = 4.485	
R ²	0.309	Significance (p)	
Adjusted R ²	0.240	Durbin-Watson statistics = 1.835	

Table 2. Correlation of variables

		SRI	ROE	Size of firm	EPS
SRI correlation	Pearson	1.000	-0.303	0.410	0.058
	Significance (1-tailed)	-	0.039**	0.007***	0.369
ROE correlation	Pearson	-0.303	1.000	0.004	0.565
	Significance (1-tailed)	0.039**	-	0.489	0.001
Firm size correlation	Pearson	0.410	0.004	1.000	0.133
	Significance (1-tailed)	0.007***	0.489	-	0.224
EPS correlation	Pearson	0.058	0.565	0.133	1.000
	Significance (1-tailed)	0.369	0.001	0.224	-

Note. N = 34; *0.100% level of significance; **0.050% level of significance; & ***0.01% significance level

The Durbin-Watson statistic of 1.835 approximates 2, a rule-of-thumb value, suggesting the absence of positive autocorrelation. The results above also show that two variables, ROE and firm size, are significant at 5% level.

Table 2 presents detailed information on the Pearson correlations among the variables under analysis (SRI, ROE, size of firm, and EPS).

Analysis of **Table 2** using Pearson's correlation shows a negative correlation coefficient of -0.303 between sustainability reporting and ROE, which is significant at the 5% level ($p = 0.039$). Also, **Table 2** shows a positive correlation coefficient of 0.409 with a p value of .007, which implies that the correlation is significant at the 1% level, indicating that firm size significantly influences SDI. A positive but very low correlation coefficient of 0.058 between SDI and EPS, with a p value of 0.369, indicates no significant correlation between the two.

Test of Hypotheses

The decision rule was defined to reject the null hypothesis if the p value of the t -statistic is greater than 5% alpha level. (i.e., reject H_0 if $p > 0.05$ alpha level).

H1. There is no significant association between SD practices and ROE.

From **Table 1**, a t -test of the relationship between the SDI and returns on equity shows that the t -value (0.018) is less than the 0.05 alpha level. Therefore, we reject the null hypothesis and conclude that there is a significant association between SD practices and ROE. The regression coefficient of -0.508 implies a negative relationship between SDI and ROE.

H2. There is no significant association between SD practices and firm size.

From **Table 1**, the p value of the t -test for the regression of the SDI on firm size is 0.02, which is less than the 0.05 alpha level; the null hypothesis is therefore rejected at the 5% level of significance. The beta coefficient for the regression is 0.044, indicating a positive relationship. Hence, we conclude that SD

practices have a significant positive relationship with firm size.

H3. There is no significant association between SD practices and EPS. From **Table 1**, the p value of the t -statistic test of the regression between SDI and EPS shows that the p value of the t -statistic (0.162) is greater than the 0.05 alpha level. We, therefore, accept the null hypothesis and conclude that no significant association exists between SDI and EPS.

CONCLUSION

In agreement with Adhikara et al. (2025), who affirmed that SD practice by firms has been criticized for reducing earnings and is regarded as a waste of investors' returns. In alignment with Kartini et al. (2024) and Effiong (2022), but in disagreement with a previous study by Al-Afeef et al. (2022), which reported a positive association between the social index and returns on equity, our findings indicated a negative association between SD practices and returns on equity.

As a matter of interest, the negative association may imply that companies incur additional expenses to achieve sustainable business practices. The adoption of SD practices, such as employee training and welfare, occupational safety and health, pollution prevention, energy conservation, environmental management systems, and recycling. It is believed that these expenses negatively affect returns and place a firm at an economic disadvantage compared to other firms. It is also inferred from the negative association between SDI and ROE that organizations that reject SD practices may accrue increasing profits at the expense of society and the environment.

According to Bresciani et al. (2022), larger firms attract more attention from regulators, policymakers, and the media. Therefore, they would be under immense pressure to improve their sustainability reporting performance. In agreement with the assertion above and with the findings by Hristov et al. (2021), though, inconsistent with Prasad et al. (2022), who

discovered no association between social and environmental reporting and the size of the firm.

The study found that firm size has a positive, significant association with the extent of SD practices. The size of the firm has a notable positive influence on the firm's SD practices. This means that a firm's sustainability disclosures are determined by the availability of resources and their capabilities. Large firms have more resources and can allocate them to social improvement, employee welfare, environmental pollution mitigation, and the implementation of better occupational safety and health programs and may also demonstrate a commitment to SD. Large corporations emphasize corporate image and may use SD reporting to enhance goodwill.

In contrast to Adhikara et al. (2025), who reported a notable negative association between environmental reporting and EPS, this study found no significant association between SD practices and EPS. Therefore, we conclude that EPS do not explain the behavior of the SDI. It was also discovered that there is no legal requirement for quoted corporate organizations to disclose their social and environmental performance.

Furthermore, SD reporting is undergoing development. However, corporate bodies disclose more about the social aspects of SD than about the environmental aspects. The negative association reported between SD practices and ROE can discourage firms from adopting sustainability practices. Therefore, it is recommended that the government offer tax credits and other financial incentives to encourage corporate firms to practice SD. We also recommend that SD practices disclosures, which have been voluntary, be made mandatory through legislation.

We recommend that national programs and policies be established to promote corporate firms' commitment to SD. Given our findings of a notable positive association between firm size and SD practices, we recommend that large corporate entities with robust resources adopt SD practices and disclosures to achieve and sustain an improved corporate image. As a matter of urgency and necessity, corporate organizations should incorporate SD practices into their corporate strategy by adopting efficient, environmentally friendly technologies. The onus is on stakeholders and host communities to demand sustainability reports that detail the firm's environmental and social impacts on their communities.

Researchers may examine other aspects of SD, such as cultural aspects. Additionally, investigations can be conducted into how customer satisfaction and employee commitment contribute to achieving SD. Moreover, the same research can be applied to other sectors of the economy that are more into environmental activities.

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Ethical statement: The authors stated that the study does not require any ethical approval. The research used published annual reports with appropriate reference to the source, the annual report

declaration is the avenue through which companies disclose sustainability performance and the participants' personal details remained anonymous.

AI statement: The authors stated that no generative AI tool has been used to prepare, produce the study or write the present paper.

Declaration of interest: No conflict of interest is declared by the authors.

Data sharing statement: Data supporting the findings and conclusions are available upon request from corresponding author.

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