

# STAKEHOLDER ENGAGEMENT AND CORPORATE PERFORMANCES: EMPIRICAL EVIDENCE FROM AN EMERGING ECONOMY

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## Abstract

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From inception to execution, United Nations Sustainable Development Goals (SDGs) are based on multi-stakeholder partnerships. Therefore, SDGs can be described as a pragmatic stakeholder engagement model. In this research article, the impact of the adoption of SDGs by firms on their financial, environmental, and social performance is examined. Based on the publication of sustainability reporting by firms in compliance with GRI standards, 89 selected Indian firms from the NSE 500 were included in the content analysis for data collection. In addition, multiple linear regression was used to analyse secondary data to establish an empirical relationship between SDGs adoption and corporate performance. The findings of this study revealed that the adoption of SDGs by firms is significantly and positively associated with their financial, environmental, and social performances. This article contributes to academic knowledge on sustainable development and provides important implications for researchers, practitioners, and policymakers. This article contributes to academic knowledge of sustainable development and corporate performance and provides important implications for researchers, practitioners, and policymakers.

**Keywords:** Corporate Financial Performance, Corporate Environmental Performance, Corporate Social Performance, GRI Standards, Stakeholder Engagement, Sustainability Reporting, Sustainable Development Goals

**Authors' individual contribution:** Conceptualization — A.P.S.; Methodology — A.P.S. and Z.R.; Investigation — A.P.S.; Writing — Original Draft — A.P.S.; Writing — Review & Editing — Z.R.; Supervision — Z.R.

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## 1. INTRODUCTION

The United Nations Sustainable Development Goals (SDGs) were launched in 2015, including a comprehensive set of goals and targets to be achieved by the world by 2030. SDGs are also known as Agenda 2030 or Global Goals. Agenda 2030 framework resulted from two years of extensive engagement and consultation with various stakeholders (United Nations [UN], 2020). Global Goals are a shared vision to achieve a sustainable

future for all. Agenda 2030 has 16 specified goals from different sectors and Goal 17 as a partnership. SDGs are complex and multi-faceted, and their implementation requires the involvement of multiple stakeholders (Maher & Buhmann, 2019; Panja, 2019). From inauguration to implementation, stakeholder participation is central to Agenda 2030. SDGs are a call to action for all stakeholders across all sustainability dimensions — economic, social and environmental. Multi-stakeholder partnerships are central to the SDGs framework as it catalyses the co-creation and sharing of risks and responsibilities

(Eweje, Sajjad, Nath, & Kobayashi, 2020). Broadly, the SDGs framework can be defined as a pragmatic stakeholder engagement model.

From the perspective of sustainable development, firm, environment, and society are the three key stakeholders (Anbarasan & Sushil, 2018; Elkington, 1999) and the triple bottom line (TBL) of economic, environmental and social are three significant dimensions used to measure firms' performances — in the form of corporate financial performance (CFP), corporate environmental performance (CEP) and corporate social performance (CSP).

In the case of emerging economies, studies on stakeholder engagement and corporate performance are limited (Kenyoru, 2015; Ansong & Wanasika, 2017). Furthermore, the findings of research conducted in developed economies cannot be generalized to developing countries due to differences in geographic location, economic conditions, and institutional structures (Gupta, Crilly, & Greckhamer, 2020; Kumar, Batra, & Boesso, 2021; Hristov & Appolloni, 2022). This study attempts to address the gap in the existing literature by examining the impact of stakeholder engagement on corporate performance.

This research article has its foundation on an identified objective and an overarching research question. The primary objective of this study is to explore the causal relationship between stakeholder engagement and corporate performance. The overarching research question is: *What is the effect of stakeholder engagement on corporate performance?*

The rest of this paper is structured as follows. Section 2 presents the literature review and hypotheses development. Then in Section 3, we discuss the research methodology used in this study. In Section 4, we offer the research results based on regression analysis. We then discuss the findings of this study and compare them with previous literature in Section 5. In Section 6, we provide the conclusion and limitations of this study.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The findings of the literature review are exhibited in Table 1. A literature review showed that sustainable practices adopted by firms are positively associated with CFP (Martínez-Ferrero & Frias-Aceituno, 2015; Muhmad & Muhamad, 2021; Tien, Anh, & Ngoc, 2020). In contrast, Lassala, Orero-Blat, and Ribeiro-Navarrete (2021) claimed a negative correlation between the finding of SDGs and CFP. Yu and Ramanathan (2015) and Khaksar, Abbasnejad, Esmaeili, and Tamošaitienė (2016) found a positive association between adopting sustainable practices by corporations and their CEPs. However, Haque and Ntim (2018) observed no association between the sustainable practices of firms and their CEP and a partial relationship was found by Yusoff, Nejati, Kee, and Amran (2020). Two different studies by Gualandris and Kalchschmidt (2016) and Orazalin and Baydauletov (2020) revealed a positive association between the adoption of sustainable practices by businesses and their CEP and CSP.

Table 1. Literature review findings

Author(s)/year of study	Scope of research	Research findings
<b>CFP</b>		
Martínez-Ferrero and Frias-Aceituno (2015)	Relationship between CSR and corporate performance and its direction of causality.	A positive and bidirectional relationship between CSR and financial performance.
Muhmad and Muhamad (2021)	Sustainable business practices and financial performance during pre- and post-SDGs adoption periods.	A positive relationship between sustainability practices and the financial performance of companies.
Tien et al. (2020)	Impact of CSR and corporate environmental sustainability on CFP.	Positive correlation between corporate sustainable development (CSR + corporate environmental sustainability) and CFP.
Lassala et al. (2021)	Financial performance of listed companies in pursuit of the SDGs.	Companies that do not implement SDGs in their strategies have better financial performance.
<b>CEP</b>		
Yu and Ramanathan (2015)	Links of adopting green operations practices with its antecedent factors (stakeholder pressures) and consequent performance outcomes (environmental performance).	Two attributes of green operations practices (i.e., internal green management and green product/process design) are significantly and positively related to environmental performance.
Khaksar et al. (2016)	Evaluate the relationship between a green supplier, green innovation, environmental performance, and competitive advantage.	A significant positive relationship between green innovation and environmental performance on one hand, and environmental performance and competitive advantage on the other.
Haque and Ntim (2018)	Effects of environmental policy, sustainable development frameworks, and corporate governance mechanisms on environmental performance.	Firms can symbolically conform to environmental policy and sustainable development frameworks by engaging in carbon reduction initiatives without necessarily improving actual environmental performance substantively.
Yusoff et al. (2020)	How green human resource management practices will enhance environmental performance?	Green recruitment and selection, green training and development, and green compensation have a meaningful relationship with environmental performance, while green performance appraisal did not have a significant relationship with environmental performance.
<b>CEP &amp; CSP</b>		
Gualandris and Kalchschmidt (2016)	Environmental and social performance of manufacturing firms as sustainable supply chain management develops and evolves within a firm from internal to external practices.	Manufacturing firms' sustainability performance improves as sustainable supply chain management develops.
Orazalin and Baydauletov (2020)	Effects of CSR strategy and board gender diversity on environmental and social performance.	Firms with more effective CSR strategies exhibit better environmental and social performance.

Note: CFP — Corporate financial performance; CEP — Corporate environmental performance; CSP — Corporate social performance; CSR — Corporate social responsibility; SDGs — Sustainable Development Goals.

Consistent with prior studies, firm characteristics such as firm size (Chariri, Januarti, & Yuyetta, 2017; Orazalin & Baydauletov, 2020; Wang, Zhang, & Goh, 2018; Younis & Sundarakani, 2019; Yusof, Tabassi, & Esa, 2020), firm age (Bananuka, Bakalikwira, Nuwagaba, & Tumwebaze, 2021; D'Amato & Falivena, 2020; Yu & Ramanathan, 2016), industry (Arminen, Puumalainen, Pätäri, & Fellnhofer, 2018; Chariri et al., 2017) and ownership (Broberg & Egüez, 2018; Clò, Ferraris, & Florio, 2017; Phukon & Gakhar, 2020) were included as control variables for potential confounding effects on CFP, CEP and CSP. Firm size was measured by market capitalisation (Astakhov, Havranek, & Novak, 2019). Firm listing age was calculated as the number of years since the firm was listed on the stock exchange (Brown, 2013; Liu & Zhang, 2021). Corporations were classified based on their industry (Mulenga & Bhatia, 2020) and ownership — state-owned or private enterprises (Lazzarini & Musacchio, 2018).

There are multiple sustainability accounting standards developed by non-profit organisations that are available for voluntary adoption by businesses. GRI standards are the leading framework adopted by over 4000 firms worldwide (CRISIL, 2020).

GRI standards are divided into four categories: Universal (100 series), Economic (200 series), Environmental (300 series), and Social (400 series).

In this study, stakeholder engagement was the predictor variable and was measured in terms of the number of SDGs adopted by the firms. CFP, CEP, and CSP were included as outcome variables in the regression models and were measured in terms of the GRI-200 series (17 indicators), GRI-300 series (32 indicators), and GRI-400 series (40 indicators) respectively. Firm size, firm age, industry, and ownership were entered as covariates in the regression models. The conceptual framework adopted for this study is shown in Figure 1.

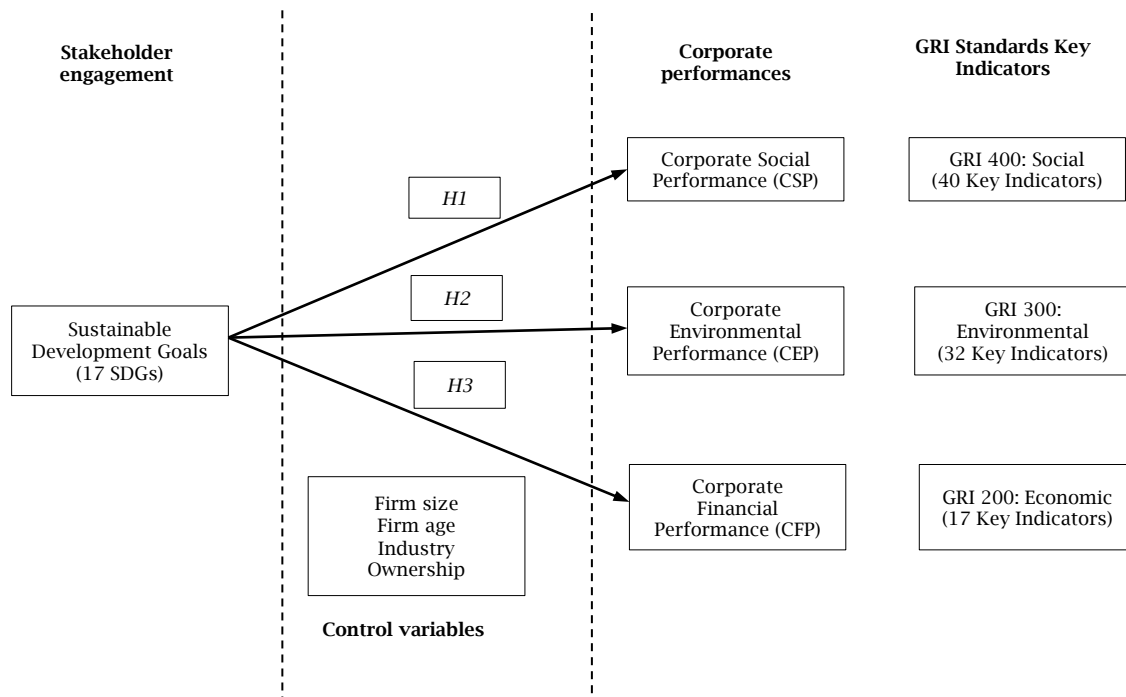
The three hypotheses founded on an identified objective and an overarching research question are the following:

*H1: Adoption of SDGs by firms has a positive association with their CFP.*

*H2: Adoption of SDGs by firms has a positive association with their CEP.*

*H3: Adoption of SDGs by firms has a positive association with their CSP.*

Figure 1. Conceptual framework



### 3. RESEARCH METHODOLOGY

This research article is based on a mixed methodology: qualitative (content analysis) and quantitative (regression analysis).

Content analysis is a powerful tool to systematically analyse documents and collect data for research (Krippendorff, 2018). In this analysis, secondary data was collected using a content analysis method from non-financial disclosure documents published by Indian companies based on GRI standards. The content analysis consists of three phases: preparation, organising, and reporting (Elo & Kyngäs, 2008).

#### 3.1. Content analysis: The preparation phase

National Stock Exchange of India Limited (NSE) is a major stock exchange in India. The top 500 companies listed on the NSE as of March 31, 2020, were selected as a sample for this study. The list of top 500 Indian companies by market capitalisation was downloaded from the NSE website, along with other relevant information such as market capitalisation, industry category, ownership, and listing date. The firms were broadly classified into 13 industry groups. The date of listing of the firms on the stock exchange was used to calculate the firm listing age.

3.1.1. Selection of non-financial disclosure reports

The content of annual reports published by businesses is of immense value to organisational researchers (Guthrie, Petty, Yongvanich, & Ricceri, 2004). Corporate disclosure documents are grouped into two categories: mandatory (such as annual financial reports, and business responsibility report) and voluntary (such as corporate sustainability report, ESG report, and corporate social responsibility report) (Rowe, Nowak, Quaddus, & Naude, 2014). Corporations can choose to publish both types of reports separately or a unified (Integrated) report that enables firms to offer both mandatory and voluntary disclosures in one place (Garrido-Miralles, Zorio-Grima, & García-Benau, 2016).

Based on the objective of this study, both mandatory and voluntary reports were included in the content analysis. Corporate reports were downloaded in PDF format from firms' websites in six categories: Annual Report, Integrated Report, Sustainability Report, Business Responsibility Report, ESG Report, and Corporate Social Responsibility Report.

3.1.2. Selection of keywords for content analysis

For systematic content analysis of non-financial disclosure documents, search texts were classified into two keyword groups: UN SDGs and GRI Indicators.

3.2. Content analysis: Organizing phase

3.2.1. Pilot run

The coding scheme for capturing data from the content analysis was first tested on five firms. Test runs allowed us to refine and finalise data collection points (DCPs) and codify them for data capturing during content analysis. The finalised texts, data collection points, and codes are shown in Table 2.

Table 2. Finalised texts, data collection points and codes

Texts	UN SDGs	GRI Indicators
Keywords	"sustainable development goals" OR "SDGs" OR "SDG" OR "global goals" OR "agenda 2030"	"GRI Content Index"
DCPs	For each SDG from 1 to 17: 1 = adopted 0 = not adopted	For each GRI 200/300/400 series indicator: 1 = reported 0 = not reported

3.2.2. Text analysis

An in-depth manual content analysis was adopted to analyse the two keyword groups in the firms' non-financial disclosures. This detailed analysis enabled us to exclude 412 firms from this study, as they had not published their sustainability reports based on GRI standards.

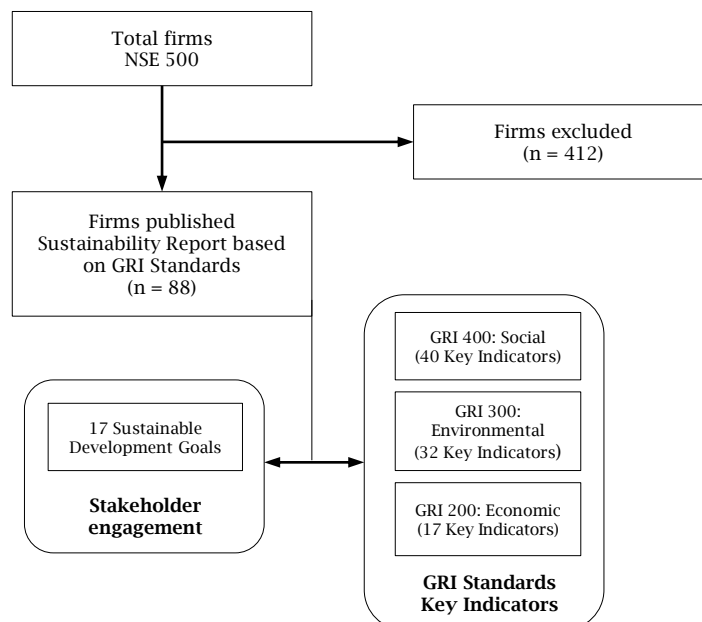
3.3. Content analysis: Reporting phase

Data on SDGs and GRI indicators was captured and recorded from the firms' non-financial disclosure reports. The data collection outline is shown in Figure 2.

3.4. Regression analysis

Multiple regression is a statistical tool that allows researchers to examine the relationship between multiple predictor variables and an outcome variable. The basic requirements for multiple regression are that dependent variables should be continuous and independent variables should be continuous or categorical.

Figure 2. Data collection outline



In this research, the predictor variable was SDGs, and the outcome variables were CFP, CEP, and CSP. The introduction of covariates into regression analysis was critical to the development of a robust model. Based on the literature review, firm age, firm size, ownership, and industry were included as control variables. Covariates were entered as independent variables in the blocks to isolate their individual and relative effects in the regression model. SDGs, CFP, CEP, CSP, firm age, and firm size were included as continuous variables. At the same time, ownership and industry were entered as categorical variables. Dummy coding was done to include categorical variables in the regression analysis.

This study used multiple regression to develop three models (SDGs-CFP, SDGs-CEP, SDGs-CSP) to establish a relationship between stakeholder engagement and corporate performance.

### 3.4.1. Data analysis

The effectiveness of multiple regression depends on the inclusion of significant variables and the exclusion of unrelated variables in the model. Based on the literature review, variables were included in the regression models — SDGs as an independent variable; CFP, CEP, and CSP as dependent variables; firm age, firm size, industry, and ownership as control variables. During the initial investigation, a significant relationship was found between the independent variable and the dependent variable. The independent variable and the control variables were found to be uncorrelated, fulfilling the requirement for no multicollinearity. The relationship between firm size and firm age with the dependent variables was insignificant, and therefore both were not included in multiple linear analyses. Ownership and industry were included as covariates based on their significant correlations with dependent variables.

Multiple regression analysis has certain assumptions, and testing for these assumptions by researchers is vital to produce unbiased and meaningful results. All the assumptions of multiple regression as stated by Pedhazur (1997) were tested for each of the three models separately using IBM SPSS Statistics for Windows, Version 27.0.1.0. The scatterplots indicated that the relationship between the independent variable (SDGs) and the dependent variables (CFP, CEP, CSP) could be modelled by a straight line. Therefore, the first prerequisite of multiple regression, i.e., a linear

relation between predictor and response variable, was met by the datasets. This study used two methods to test for no significant correlation between predictor and covariates, namely, correlation coefficients and variance inflation factor (VIF) values. First, multicollinearity was tested through a correlations table with a cut-off value of correlation coefficients ( $r$ ) as 0.7 (Kalnins, 2018). Second, correlations between predictor and covariates were verified with critical VIF values (below 10) and tolerance scores (above 0.2) (Brace, George, & Lovell, 2020). Both correlation coefficients and VIF values confirmed that there was no multicollinearity between independent variables and control variables. For checking the independence of residuals, the Durbin-Watson test was used. The Durbin-Watson statistic can vary from 1 to 4, and values below 1 and above 3 are not desirable (Field, 2017). The values of the Durbin-Watson tests were found to be within critical limits confirming that the residuals are independent. Homoscedasticity represents a situation in which the variance of the residuals remains constant at each point in the model. To satisfy the homoscedasticity assumption, scatterplots of ZPRED (standardised predicted values) and ZRESID (standardised residual) should be random than funnelled (Cohen, 1988). Since the array of dots in the models was random, the assumption for homoscedasticity was met. Normality was tested through histograms and normal P-P plots (Field, 2017). The histograms of the residuals were nearly normal, and the normal P-P plots were also approximately linear, confirming that the residual values are normally distributed. Cook's distance statistic was used to test for significant outliers. The critical value for Cook's distance is 1, and any value above that is a high leverage point can have an undue influence on the regression model (Field, 2017). No highly influential point was found, confirming that no influential cases are biasing our models.

## 4. RESEARCH RESULTS

### 4.1. SDGs-CFP model

Based on the preliminary correlations test, Oil & Gas Industry and Ownership were included as covariates in the SDGs-CFP regression analysis. Correlations between variables included in SDGs-CFP modelling are shown in Table 3.

**Table 3.** Correlations analysis for SDGs-CFP models

		CFP	SDGs	Industry_Oil & Gas	Owner_Private
Pearson correlation	CFP	1.000	0.204	0.238	-0.206
	SDGs	0.204	1.000	0.097	-0.003
	Industry_Oil & Gas	0.238	0.097	1.000	-0.588
	Owner_Private	-0.206	-0.003	-0.588	1.000
Sig. (1-tailed)	CFP	.	0.027	0.012	0.026
	SDGs	0.027	.	0.182	0.489
	Industry_Oil & Gas	0.012	0.182	.	0.000
	Owner_Private	0.026	0.489	0.000	.
N	CFP	89	89	89	89
	SDGs	89	89	89	89
	Industry_Oil & Gas	89	89	89	89
	Owner_Private	89	89	89	89

The maximum correlation between *SDGs* and covariates is  $R = 0.588$ , and all correlations are insignificant ( $p > 0.05$ ). Whereas correlations between *CFP* and independent variables (including

covariates) are significant ( $p < 0.05$ ), suggesting multiple regression is appropriate. The proposed *SDGs*-*CFP* model is as follows:

$$CFP = f(SDGs, Industry\_Oil \& Gas, Owner\_Private) \tag{1}$$

In the first block of linear regression, *SDGs* were entered as an independent variable, and in the second block, covariates were added, as shown in Table 4. The coefficient of correlation ( $R$ ) for the first model is 0.204, and by adding covariates to the second model,  $R (= 0.314)$  has slightly improved. The coefficient of determination ( $R$ -square,  $R^2$ ) indicates that Model 1 can explain 4.2% of the variance in *CFP*, whereas Model 2 with covariates can explain 9.9% of the variance in *CFP*. The  $F$ -statistics conclude that the  $R$ -square changes from Model 0 to Model 1 ( $p > 0.05$ ) and from Model 1 to Model 2 ( $p > 0.05$ ) are not significant, as shown in Table 5. Thus, there was no significant improvement in the model's explanatory power with the addition of *SDGs* in Model 1 and the covariates in Model 2.

**Table 4.** Variables entered/removed in *SDGs*-*CFP* models

Model	Variables entered	Variables removed	Method
1	<i>SDGs</i> <sup>b</sup>	.	Enter
2	<i>Owner_Private</i> , <i>Industry_Oil &amp; Gas</i> <sup>b</sup>	.	Enter

Note: a. Dependent variable: *CFP*; b. All requested variables entered.

ANOVA analysis showed that Model 1 is not statistically significant ( $p > 0.05$ ). However, Model 2 is statistically significant ( $p < 0.05$ ), as shown in Table 6. This indicates that *SDGs* and covariates together contribute significantly to the variance of *CFP*. The coefficients in Table 7 were used to develop a statistical model to predict *CFP*.

**Table 5.** Model summary table of *SDGs*-*CFP* models

Model	R	R <sup>2</sup>	Adjusted R-square	Std. Error of the estimate	Change statistics					Durbin-Watson
					R <sup>2</sup> change	F change	df1	df2	Sig. F change	
1	0.204 <sup>a</sup>	0.042	0.031	4.115	0.042	3.787	1	87	0.055	
2	0.314 <sup>b</sup>	0.099	0.067	4.037	0.057	2.684	2	85	0.074	2.151

Note: a. Predictors: (Constant), *SDGs*; b. Predictors: (Constant), *SDGs*, *Owner\_Private*, *Industry\_Oil & Gas*; c. Dependent variable: *CFP*.

**Table 6.** ANOVA table for *SDGs*-*CFP* models

Model	Sum of squares	Df	Mean square	F	Sig.	
1	Regression	64.121	1	64.121	3.787	0.055 <sup>b</sup>
	Residual	1472.890	87	16.930		
	Total	1537.011	88			
2	Regression	151.603	3	50.534	3.100	0.031 <sup>c</sup>
	Residual	1385.408	85	16.299		
	Total	1537.011	88			

Note: a. Dependent variable: *CFP*; b. Predictors: (Constant), *SDGs*; c. Predictors: (Constant), *SDGs*, *Owner\_Private*, *Industry\_Oil & Gas*.

**Table 7.** Coefficients table of *SDGs*-*CFP* models

Model		Unstandardised coefficients		Standardised coefficients	T	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.303	1.267		2.607	0.011		
	<i>SDGs</i>	0.200	0.103	0.204	1.946	0.055	1.000	1.000
2	(Constant)	4.471	1.795		2.490	0.015		
	<i>SDGs</i>	0.185	0.101	0.189	1.825	0.072	0.986	1.014
	<i>Industry_Oil &amp; Gas</i>	2.319	1.980	0.150	1.171	0.245	0.645	1.551
	<i>Owner_Private</i>	-1.383	1.502	-0.117	-0.921	0.360	0.651	1.536

Note: a. Dependent variable: *CFP*.

Multiple regression was performed with the *Industry\_Oil & Gas* and *Owner\_Private* as covariates to test whether *SDGs* can make a significant prediction of *CFP*. The regression findings showed

that Model 2 explained 9.9% of the variation in *CFP* and that Model 2 was a significant predictor of *CFP*,  $F(3,85) = 3.100$ ,  $p = 0.031$ . The statistical equation of the *SDGs*-*CFP* model is:

$$CFP = 4.471 + 0.185 \times SDGs + 2.319 \times Industry\_Oil \& Gas - 1.383 \times Owner\_Private \tag{2}$$

**4.2. *SDGs*-*CEP* model**

Based on the preliminary correlations test, Banking & Financial Services industry and the Oil & Gas

Industry were included as covariates in the *SDGs*-*CEP* regression analysis. Correlations between variables included in *SDGs*-*CEP* modelling are shown in Table 8.

**Table 8.** Correlations analysis for SDGs-CEP models

		CEP	SDGs	Industry_Banking & Financial_Services	Industry_Oil & Gas
Pearson correlation	CEP	1.000	0.267	-0.375	0.291
	SDGs	0.267	1.000	0.156	0.097
	Industry_Banking & Financial_Services	-0.375	0.156	1.000	-0.098
	Industry_Oil & Gas	0.291	0.097	-0.098	1.000
Sig. (1-tailed)	CEP	.	0.006	0.000	0.003
	SDGs	0.006	.	0.073	0.182
	Industry_Banking & Financial_Services	0.000	0.073	.	0.180
	Industry_Oil & Gas	0.003	0.182	0.180	.
N	CEP	89	89	89	89
	SDGs	89	89	89	89
	Industry_Banking & Financial_Services	89	89	89	89
	Industry_Oil & Gas	89	89	89	89

The maximum correlation between SDGs and covariates is R = 0.156, and all correlations are insignificant (p > 0.05). Whereas correlations between CEP and independent variables (including

covariates) are significant (p < 0.05), suggesting multiple regression is appropriate. The proposed SDGs-CEP model is as follows:

$$CEP = f(SDGs, Industry\_Banking \& Financial\_Services, Industry\_Oil \& Gas) \tag{3}$$

In the first block of linear regression, SDGs were entered as an independent variable, and in the second block, covariates were added, as shown in Table 9. The coefficient of correlation (R) for the first model is 0.267, and by adding covariates to the second model, R (= 0.545) has improved significantly. The coefficient of determination (R-square, R<sup>2</sup>) indicates that the first model can explain 6.0 % of the variance in CEP, whereas the second model with covariates can explain 27.2% of the variance in CEP. The F-statistics conclude that the R-square changes from Model 0 to Model 1 (p < 0.05) and from Model 1 to Model 2 (p < 0.05) are significant, as shown in Table 10. Thus, there was

a significant improvement in the model's explanatory power with the addition of SDGs in Model 1 and the covariates in Model 2.

**Table 9.** Variables entered/removed in SDGs-CEP models

Model	Variables entered	Variables removed	Method
1	SDGs <sup>b</sup>	.	Enter
2	Industry_Oil & Gas, Industry_Banking & Financial_Services <sup>b</sup>	.	Enter

Note: a. Dependent variable: CEP; b. All requested variables entered.

**Table 10.** Model summary table of SDGs-CEP models

Model	R	R <sup>2</sup>	Adjusted R-square	Std. Error of the estimate	Change statistics					Durbin-Watson
					R <sup>2</sup> change	F change	df1	df2	Sig. F change	
1	0.267 <sup>a</sup>	0.071	0.060	7.770	0.071	6.662	1	87	0.012	
2	0.545 <sup>b</sup>	0.297	0.272	6.839	0.226	13.658	2	85	0.000	2.565

Note: a. Predictors: (Constant), SDGs; b. Predictors: (Constant), Industry\_Oil & Gas, Industry\_Banking & Financial\_Services; c. Dependent variable: CEP.

**Table 11.** ANOVA table for SDGs-CEP models

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	402.270	1	402.270	6.662	0.012 <sup>b</sup>
	Residual	5253.011	87	60.379		
	Total	5655.281	88			
2	Regression	1679.823	3	559.941	11.972	0.000 <sup>c</sup>
	Residual	3975.458	85	46.770		
	Total	5655.281	88			

Note: a. Dependent variable: CEP; b. Predictors: (Constant), SDGs; c. Predictors: (Constant), SDGs, Industry\_Oil & Gas, Industry\_Banking & Financial\_Services.

**Table 12.** Coefficients table of SDGs-CEP models

Model		Unstandardised coefficients		Standardised coefficients	T	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	11.112	2.393		4.644	0.000		
	SDGs	0.501	0.194	0.267	2.581	0.012	1.000	1.000
2	(Constant)	10.780	2.107		5.116	0.000		
	SDGs	0.577	0.174	0.308	3.318	0.001	0.963	1.038
	Industry_Banking & Financial_Services	-10.603	2.450	-0.401	-4.327	0.000	0.963	1.039
	Industry_Oil & Gas	6.575	2.724	0.222	2.414	0.018	0.977	1.023

Note: a. Dependent variable: CEP.



ANOVA analysis showed that Model 1 and Model 2 are statistically significant ( $p < 0.05$ ), as shown in Table 11. This indicates that SDGs and covariates together contribute significantly to the variance of CEP. The coefficients in Table 12 were used to develop a statistical model to predict CEP.

Multiple regression was performed with *Industry\_Banking & Financial\_Services* and *Industry\_Oil & Gas* as covariates to test whether SDGs can make a significant prediction of CEP.

$$CEP = 10.780 + 0.577 \times SDGs + 6.575 \times Industry\_Oil \& Gas - 10.603 \times Industry\_Banking \& Financial\_Services \tag{4}$$

**4.3. SDGs–CSP model**

Based on the preliminary correlations test, Banking & Financial Services Industry, Oil & Gas Industry, and

The regression findings showed that Model 2 explained 27.2% of the variation in CEP and that Model 2 was a significant predictor of CEP,  $F(3,85) = 11.972$ ,  $p = 0.000$ ; *SDGs* ( $B = 0.577$ ,  $p < 0.05$ ); *Industry\_Banking & Financial\_Services* ( $B = -10.603$ ,  $p < 0.05$ ) and *Industry\_Oil & Gas* ( $B = 6.575$ ,  $p < 0.05$ ) contributed significantly to the model. The statistical equation of the SDGs-CEP model is:

Power Industry were included as covariates in the SDGs-CSP regression analysis. Correlations between variables included in SDGs-CSP modelling are shown in Table 13.

**Table 13.** Correlations analysis for SDGs–CSP models

		CSP	SDGs	Industry_Banking & Financial_Services	Industry_Oil & Gas	Industry_Power
Pearson correlation	CSP	1.000	0.249	-0.185	0.232	0.191
	SDGs	0.249	1.000	0.156	0.097	0.081
	Industry_Banking & Financial_Services	-0.185	0.156	1.000	-0.098	-0.082
	Industry_Oil & Gas	0.232	0.097	-0.098	1.000	-0.071
	Industry_Power	0.191	0.081	-0.082	-0.071	1.000
Sig. (1-tailed)	CSP	.	0.009	0.041	0.014	0.037
	SDGs	0.009	.	0.073	0.182	0.224
	Industry_Banking & Financial_Services	0.041	0.073	.	0.180	0.223
	Industry_Oil & Gas	0.014	0.182	0.180	.	0.253
	Industry_Power	0.037	0.224	0.223	0.253	.
N	CSP	89	89	89	89	89
	SDGs	89	89	89	89	89
	Industry_Banking & Financial_Services	89	89	89	89	89
	Industry_Oil & Gas	89	89	89	89	89
	Industry_Power	89	89	89	89	89

The maximum correlation between SDGs and covariates is  $R = 0.156$  and all correlations are insignificant ( $p > 0.05$ ). Whereas correlations between CSP and independent variables (including

covariates) are significant ( $p < 0.05$ ), suggesting multiple regression is appropriate. The proposed SDGs-CSP model is as follows:

$$CSP = f(SDGs, Industry\_Banking \& Financial\_Services, Industry\_Oil \& Gas, Industry\_Power) \tag{5}$$

In the first block of linear regression, SDGs were entered as an independent variable, and in the second block, covariates were added, as shown in Table 14. The coefficient of correlation ( $R$ ) for the first model is 0.062, and by adding covariates to the second model,  $R (= 0.175)$  has slightly improved. The coefficient of determination ( $R$ -square,  $R^2$ ) indicates that the first model can explain 6.2 % of the variance in CSP, whereas the second model with covariates can explain 17.5% of the variance in CSP. The F-statistics conclude that the  $R$ -square changes from Model 0 to Model 1 ( $p < 0.05$ ) and from Model 1 to Model 2 ( $p < 0.05$ ) are significant, as shown in Table 15. Thus, there was

a significant improvement in the model's explanatory power with the addition of SDGs in Model 1 and the covariates in Model 2.

**Table 14.** Variables entered/removed in SDGs–CSP models

Model	Variables entered	Variables removed	Method
1	SDGs <sup>b</sup>	.	Enter
2	Industry_Power, Industry_Oil & Gas, Industry_Banking & Financial_Services <sup>b</sup>	.	Enter

Note: a. Dependent variable: CSP; b. All requested variables entered.

**Table 15.** Model summary table of SDGs–CSP models

Model	R	R <sup>2</sup>	Adjusted R-square	Std. Error of the estimate	Change statistics					Durbin-Watson
					R <sup>2</sup> change	F change	df1	df2	Sig. F change	
1	0.249 <sup>a</sup>	0.062	0.051	10.287	0.062	5.739	1	87	0.019	
2	0.419 <sup>b</sup>	0.175	0.136	9.817	0.113	3.847	3	84	0.012	2.425

Note: a. Predictors: (Constant), SDGs; b. Predictors: (Constant), Industry\_Power, Industry\_Oil & Gas, Industry\_Banking & Financial\_Services; c. Dependent variable: CSP.



Table 16. ANOVA table for SDGs-CSP models

	Model	Sum of squares	Df	Mean square	F	Sig.
1	Regression	607.361	1	607.361	5.739	0.019 <sup>b</sup>
	Residual	9206.999	87	105.828		
	Total	9814.360	88			
2	Regression	1719.461	4	429.865	4.461	0.003 <sup>c</sup>
	Residual	8094.898	84	96.368		
	Total	9814.360	88			

Notes: a. Dependent Variable: CSP; b. Predictors: (Constant), SDGs; c. Predictors: (Constant), SDGs, Industry\_Power, Industry\_Oil & Gas, Industry\_Banking & Financial\_Services.

Table 17. Coefficients table of SDGs-CSP models

	Model	Unstandardised coefficients		Standardised coefficients	T	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	10.673	3.168		3.369	0.001		
	SDGs	0.615	0.257	0.249	2.396	0.019	1.000	1.000
2	(Constant)	10.400	3.024		3.439	0.001		
	SDGs	0.605	0.251	0.245	2.411	0.018	0.952	1.050
	Industry_Banking & Financial_Services	-6.605	3.537	-0.190	-1.867	0.065	0.952	1.050
	Industry_Oil & Gas	7.874	3.927	0.202	2.005	0.048	0.969	1.032
	Industry_Power	7.731	4.574	0.170	1.690	0.095	0.976	1.025

Note: a. Dependent variable: CEP.

ANOVA analysis showed that Model 1 and Model 2 are statistically significant ( $p < 0.05$ ), as shown in Table 16. This indicates that SDGs and covariates together contribute significantly to the variance of CSP. The coefficients in Table 17 were used to develop a statistical model to predict CSP.

Multiple regression was performed with *Industry\_Banking & Financial\_Services*, *Industry\_Oil & Gas*, and *Industry\_Power* as covariates to test whether SDGs can significantly predict CSP. The findings of the regression revealed that Model 2

explained 27.2% of the variance and that Model 2 was a significant predictor of CSP,  $F(4,84) = 4,461$ ,  $p = 0.003$ ; *SDGs* ( $B = 0.605$ ,  $p < 0.05$ ); *Industry\_Oil & Gas* ( $B = 7.874$ ,  $p < 0.05$ ) contributed significantly to the model. While the contributions of *Industry\_Banking & Financial\_Services* ( $B = -6.605$ ,  $p > 0.05$ ) and *Industry\_Power* ( $B = 7.731$ ,  $p > 0.05$ ) were insignificant. The statistical equation of the SDGs-CSP model is:

$$CSP = 10.400 + 0.605 \times SDGs + 7.874 \times Industry\_Oil \& \ Gas + 7.731 \times Industry\_Power - 6.605 \times Industry\_Banking \& \ Financial\_Services \quad (6)$$

## 5. DISCUSSION OF THE RESULTS

In the present section, the findings of this study are discussed in relation to prior studies on the adoption of sustainable practices by businesses and their performances. In particular, the results obtained on the relationship between the three dimensions of corporate performances (CFP, CEP, and CSP) with the adoption of SDGs by firms.

The results of SDGs-CFP modelling showed that Model 1 with variable SDGs and no covariates could not significantly explain the variance of CFP. However, when the control variables *Industry\_Oil & Gas* and *Owner\_Private* are added to the SDGs-CFP model, the variance of the CFP can be significantly explained. In Model 2, the independent variable SDGs is positive, and thus, the first hypothesis ( $H1$ ) of this article is supported and can be accepted. This is in line with previous research that found a positive correlation between sustainability practices and the financial performance of firms (Muhmad & Muhamad, 2021; Tien et al., 2020).

The findings of SDGs-CEP modelling revealed that both Model 1 (without covariates) and Model 2 (with covariates) could make a significant prediction of CEP. However, Model 2 with control variables *Industry\_Banking & Financial\_Services* and *Industry\_Oil & Gas* and *Owner\_Private* can explain the variance of the CEP more significantly. In Model 2, the independent variable SDGs is positive, and thus, the second hypothesis ( $H2$ ) of this article is supported and can be accepted. This is

consistent with previous studies that observed a positive association between sustainability practices and the environmental performance of firms (Haque & Ntim, 2018; Yusoff et al., 2020).

The results of SDGs-CSP modelling indicated that both Model 1 (without covariates) and Model 2 (with covariates) could make a significant prediction of CSP. However, Model 2 with control variables *Industry\_Oil & Gas*, *Industry\_Power*, and *Industry\_Banking & Financial\_Services* can explain the variance of the CSP more significantly. In Model 2, the independent variable SDGs is positive, and thus, the third hypothesis ( $H3$ ) of this article is supported and can be accepted. This is consistent with previous studies that observed a positive association between sustainability practices and the social performance of firms (Gualandris & Kalchschmidt, 2016; Orazalin & Baydauletov, 2020).

The number of businesses reporting on sustainability is compliant with GRI standards is low (88 out of 500). This might be because there is no mandatory requirement for listed Indian firms to publish sustainability reporting as per GRI standards. Secondly, it can be due to the use of an alternative sustainability reporting framework by Indian firms. Thirdly, it might be due to a lack of awareness among businesses on the importance and use of GRI standards. Further, Aifuwa (2020) observed that the sustainability disclosure level was lower among firms in developing countries than in developed countries.

This study uses GRI indicators to measure corporate performance. Therefore, the contribution and findings of this article are new in the context of the dataset used compared to the existing literature. Furthermore, this study adopts a mixed research methodology that has allowed the research question to be explored in greater depth.

The results of this study are different from the findings of existing research. Our findings also include the effect of covariates (industry and ownership) in the regression models. However, these firm characteristics were not variables of interest in this study and were included in the regression analysis to separate their causal effects from the independent variables (SDGs). In all regression modelling (SDGs-CFP, SDGs-CEP, and SDGs-CSP), the addition of covariates affected the coefficients of the independent variables (SDGs) and improved the explanatory power of the models. The regression results also show that the corporate performances of the firms are strongly influenced by the industry to which they belong. Additionally, private ownership has a significant negative impact on CFP. However, the firm's size (market capitalisation) and the age (listing) of the firm have an insignificant relationship with corporate performance.

## 6. CONCLUSION

This empirical study examines a highly topical subject, the relationship between stakeholder engagement and corporate performance. The aim was to explore whether the adoption of the SDGs helps businesses achieve higher financial, environmental, and social performance. The analysis examined the relationship between the adoption of SDGs by businesses and their CFP, CEP, and CSP. Based on prior literature, this analysis also included firm attribute variables (age, size, industry, and ownership) relevant to corporate performance because of their potential role in the relationship under investigation.

The association between the adoption of SDGs by firms and their CFP, CEP, and CSP was examined by controlling for firm characteristics. This paper makes several contributions to the vast body of literature on sustainable development. The regression

results show a positive, albeit weakly significant relationship between adopting the SDGs by firms and CFP. According to Lassala et al. (2021), this might be due to the medium- to long-term effect of the SDGs on CFP. Consistent with previous studies, the statistical analysis results revealed a significant relationship between the adoption of the SDGs by businesses and their environmental and social performance.

From a practical point of view, the adoption of SDGs by firms has financial, environmental, and social significance. The realisation of Agenda 2030 seeks the active participation of businesses (Rosati & Faria, 2019); it also provides an opportunity for firms to develop solutions to various global challenges (López-Concepción, Gil-Lacruz, & Saz-Gil, 2021). Firms that align their business models with the SDGs can create long-term and sustainable economic, environmental and social value (Lassala et al., 2021).

The study found that many Indian firms have not yet adopted (or reported on) the SDGs. Governments, policymakers, and regulators should create policies that encourage businesses to participate in Global Goals. Aifuwa (2020) asserted that the voluntary nature of reporting on the SDGs had caused non-reporting of the Global Goals by businesses, which could severely impact the achievement of the SDGs by 2030 at the national level. Mandatory reporting on SDGs by businesses is critical to tracking progress towards Agenda 2030 at the country level.

This study has some limitations. Factors such as board characteristics (size, independence, director ownership, gender diversity, CEO duality) affect the relationship between SDGs and corporate performance. These factors are not considered in the present study and should be investigated to improve regression models. The year of observation can be extended by multiple years to assess improvements in the adoption of SDGs by businesses and to draw better conclusions on the SDGs-corporate performance relationship. In future exploration, researchers should conduct cross-country comparative studies to better understand the effects of SDGs adoption on corporate performance.

## REFERENCES

1. Aifuwa, H. O. (2020). Sustainability reporting and firm performance in developing climes: A review of literature. *Copernican Journal of Finance & Accounting*, 9(1), 9–29. <https://doi.org/10.12775/CJFA.2020.001>
2. Anbarasan, P., & Sushil. (2018). Stakeholder engagement in sustainable enterprise: Evolving a conceptual framework and a case study of ITC. *Business Strategy and the Environment*, 27(3), 282–299. <https://doi.org/10.1002/bse.1999>
3. Arminen, H., Puumalainen, K., Pätäri, S., & Fellnhofer, K. (2018). Corporate social performance: Inter-industry and international differences. *Journal of Cleaner Production*, 177, 426–437. <https://doi.org/10.1016/j.jclepro.2017.12.250>
4. Ansong, A., & Wanasika, I. (2017). Corporate social responsibility and firm performance of Ghanaian SMEs: The role of stakeholder engagement. *Cogent Business & Management*, 4(1), 1333704. <https://doi.org/10.1080/23311975.2017.1333704>
5. Astakhov, A., Havranek, T., & Novak, J. (2019). Firm size and stock returns: A quantitative survey. *Journal of Economic Surveys*, 33(5), 1463–1492. <https://doi.org/10.1111/joes.12335>
6. Bananuka, J., Bakalikwira, L., Nuwagaba, P., & Tumwebaze, Z. (2021). Institutional pressures environmental management practices firm characteristics and environmental performance. *Accounting Research Journal*, 34(6), 637–665. <https://doi.org/10.1108/ARJ-06-2020-0143>
7. Brace, A. W., George, K., & Lovell, G. P. (2020). Mental toughness and self-efficacy of elite ultra-marathon runners. *PloS ONE*, 15(11). <https://doi.org/10.1371/journal.pone.0241284>
8. Broberg, T., & Egúez, A. (2018). Blame it on the owner — Ownership and energy performance of multi-dwelling buildings. *Energy Economics*, 72, 108–119. <https://doi.org/10.1016/j.eneco.2018.03.026>

9. Brown, W. O. (2013). Is there a period of listing effect or a post-listing performance puzzle? *Managerial Finance*, 39(1), 4–27. <https://doi.org/10.1108/03074351311283540>
10. Clò, S., Ferraris, M., & Florio, M. (2017). Ownership and environmental regulation: Evidence from the European electricity industry. *Energy Economics*, 61, 298–312. <https://doi.org/10.1016/j.eneco.2016.12.001>
11. Chariri, A., Januarti, I., & Yuyetta, E. N. A. (2017). Firm characteristics audit committee and environmental performance: Insights from Indonesian companies. *International Journal of Energy Economics and Policy*, 7(6), 19–26. Retrieved from <https://econjournals.com/index.php/ijeep/article/view/5657>
12. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York: Lawrence Erlbaum Associates.
13. CRISIL. (2020). *Rising to the ESG challenge*. Retrieved from <https://www.crisil.com/content/dam/crisil/our-analysis/reports/gr-a/whitepapers/2020/06/rising-to-the-esg-challenge.pdf>
14. D'Amato, A. & Falivena, C. (2020). Corporate social responsibility and firm value: Do firm size and age matter? Empirical evidence from European listed companies. *Corporate Social Responsibility and Environmental Management*, 27(2), 909–924. <https://doi.org/10.1002/csr.1855>
15. Elkington, J. (1999). Triple bottom line revolution: Reporting for the third millennium. *Australian CPA*, 69(11), 75–76.
16. Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
17. Eweje, G., Sajjad, A., Nath, S. D., & Kobayashi, K. (2020). Multi-stakeholder partnerships: A catalyst to achieve sustainable development goals. *Marketing Intelligence & Planning*, 39(2), 186–212. <https://doi.org/10.1108/MIP-04-2020-0135>
18. Field, A. (2017). *Discovering statistics using IBM SPSS statistics* (5th ed.). New Delhi, India: SAGE.
19. Garrido-Miralles, P., Zorio-Grima, A., & Garcia-Benau, M. A. (2016). Sustainable development stakeholder engagement and analyst forecasts' accuracy: Positive evidence from the Spanish setting. *Sustainable Development*, 24(2), 77–88. <https://doi.org/10.1002/sd.1607>
20. Gualandris, J., & Kalchschmidt, M. (2016). Developing environmental and social performance: the role of suppliers' sustainability and buyer-supplier trust. *International Journal of Production Research*, 54(8), 2470–2486. <https://doi.org/10.1080/00207543.2015.1106018>
21. Gupta, K., Crilly, D., & Greckhamer, T. (2020). Stakeholder engagement strategies, national institutions, and firm performance: A configurational perspective. *Strategic Management Journal*, 41(10), 1869–1900. <https://doi.org/10.1002/smj.3204>
22. Guthrie, J., Petty, R., Yongvanich, K., & Ricceri, F. (2004). Using content analysis as a research method to inquire into intellectual capital reporting. *Journal of Intellectual Capital*, 5(2), 282–293. <https://doi.org/10.1108/14691930410533704>
23. Haque, F., & Ntim, C. G. (2018). Environmental policy sustainable development governance mechanisms and environmental performance. *Business Strategy and the Environment*, 27(3), 415–435. <https://doi.org/10.1002/bse.2007>
24. Hristov, I., & Appolloni, A. (2022). Stakeholders' engagement in the business strategy as a key driver to increase companies' performance: Evidence from managerial and stakeholders' practices. *Business Strategy and the Environment*, 31(4), 1488–1503. <https://doi.org/10.1002/bse.2965>
25. Kalnins, A. (2018). Multicollinearity: How common factors cause Type 1 errors in multivariate regression. *Strategic Management Journal*, 39(8), 2362–2385. <https://doi.org/10.1002/smj.2783>
26. Kenyoru, N. D. (2015). Stakeholder engagement and organizational performance: A case of Kenya Power and Lighting Company, Eldoret Branch, Uasin-Gishu County-Kenya. *Archives of Business Research*, 3(2). <https://doi.org/10.14738/abr.32.785>
27. Khaksar, E., Abbasnejad, T., Esmaeili, A., & Tamošaitienė, J. (2016). The effect of green supply chain management practices on environmental performance and competitive advantage: A case study of the cement industry. *Technological and Economic Development of Economy*, 22(2), 293–308. <https://doi.org/10.3846/20294913.2015.1065521>
28. Krippendorff, K. (2018). *Content analysis: An introduction to its methodology* (4th ed.). New Delhi, India: SAGE. <https://doi.org/10.4135/9781071878781>
29. Kumar, K., Batra, R., & Boesso, G. (2021). Difference in stakeholder engagement approach of small & medium enterprises and large companies and its performance implications. *Corporate Social Responsibility and Environmental Management*, 28(3), 992–1001. <https://doi.org/10.1002/csr.2100>
30. Lazzarini, S. G., & Musacchio, A. (2018). State ownership reinvented? Explaining performance differences between state-owned and private firms. *Corporate Governance: An International Review*, 26(4), 255–272. <https://doi.org/10.1111/corg.12239>
31. Lassala, C., Orero-Blat, M., & Ribeiro-Navarrete, S. (2021). The financial performance of listed companies in pursuit of the Sustainable Development Goals (SDG). *Economic Research-Ekonomska Istraživanja*, 34(1), 427–449. <https://doi.org/10.1080/1331677X.2021.1877167>
32. Liu, H., & Zhang, Q. (2021). Firm age and realized idiosyncratic return volatility in China: The role of short-sales constraints. *International Review of Financial Analysis*, 75, 101745. <https://doi.org/10.1016/j.irfa.2021.101745>
33. López-Concepción, A., Gil-Lacruz, A. I., & Saz-Gil, I. (2021). Stakeholder engagement CSR development and SDGs compliance: A systematic review from 2015 to 2021. *Corporate Social Responsibility and Environmental Management*, 29(1), 19–31. <https://doi.org/10.1002/csr.2170>
34. Maher, R., & Buhmann, K. (2019). Meaningful stakeholder engagement: Bottom-up initiatives within global governance frameworks. *Geoforum*, 107, 231–234. <https://doi.org/10.1016/j.geoforum.2019.06.013>
35. Martínez-Ferrero, J., & Frias-Aceituno, J. V. (2015). Relationship between sustainable development and financial performance: International empirical research. *Business Strategy and the Environment*, 24(1), 20–39. <https://doi.org/10.1002/bse.1803>
36. Muhmad, S. N., & Muhamad, R. (2021). Sustainable business practices and financial performance during pre-and post-SDG adoption periods: A systematic review. *Journal of Sustainable Finance & Investment*, 11(4), 291–309. <https://doi.org/10.1080/20430795.2020.1727724>
37. Mulenga, M. J., & Bhatia, M. (2020). Value relevance of reported financials of NSE listed companies. *Afro-Asian Journal of Finance and Accounting*, 10(3), 295–319. <https://doi.org/10.1504/AJFA.2020.108242>

38. Orazalin, N., & Baydauletov, M. (2020). Corporate social responsibility strategy and corporate environmental and social performance: The moderating role of board gender diversity. *Corporate Social Responsibility and Environmental Management*, 27(4), 1664-1676. <https://doi.org/10.1002/csr.1915>
39. Panța, N. D. (2019). Raising awareness on SDGs. A multi-stakeholder approach. In R. Orăștean, C. Ogorean, & S. C. Mărginean (Eds.), *IECS 2019 Proceedings in Business and Economics "Organizations and performance in a complex world"* (pp. 217-227). Springer, Cham. [https://doi.org/10.1007/978-3-030-50676-6\\_17](https://doi.org/10.1007/978-3-030-50676-6_17)
40. Pedhazur, E. (1997). *Multiple regression in behavioral research: Explanation and prediction* (3rd ed.). Fort Worth: Harcourt Brace College Publishers.
41. Phukon, A., & Gakhar, D. V. (2020). Does change in ownership from public to private affects firm's performance? An empirical analysis of select central public sector enterprises in India. *Global Journal of Enterprise Information System*, 12(2), 24-32. Retrieved from <https://gjeis.com/index.php/GJEIS/article/view/565>
42. Rosati, F. & Faria, L. G. D. (2019). Business contribution to the sustainable development agenda: Organizational factors related to early adoption of SDG reporting. *Corporate Social Responsibility and Environmental Management*, 26(3), 588-597. <https://doi.org/10.1002/csr.1705>
43. Rowe, A. L., Nowak, M., Quaddus, M., & Naude, M. (2014). Stakeholder engagement and sustainable corporate community investment. *Business Strategy and the Environment*, 23(7), 461-474. <https://doi.org/10.1002/bse.1796>
44. Tien, N. H., Anh, D. B. H., & Ngoc, N. M. (2020). Corporate financial performance due to sustainable development in Vietnam. *Corporate Social Responsibility and Environmental Management*, 27(2), 694-705. <https://doi.org/10.1002/csr.1836>
45. United Nations (UN). (2020). *Stakeholder engagement and the 2030 agenda: A practical guide*. Retrieved from [https://sdgs.un.org/sites/default/files/2020-07/2703For\\_distribution\\_Stakeholder\\_Engagement\\_Practical\\_Guide\\_spreads\\_2.pdf](https://sdgs.un.org/sites/default/files/2020-07/2703For_distribution_Stakeholder_Engagement_Practical_Guide_spreads_2.pdf)
46. Wang, J., Zhang, Y., & Goh, M. (2018). Moderating the role of firm size in sustainable performance improvement through sustainable supply chain management. *Sustainability*, 10(5), 1654. <https://doi.org/10.3390/su10051654>
47. Yu, W., & Ramanathan, R. (2015). An empirical examination of stakeholder pressures green operations practices and environmental performance. *International Journal of Production Research*, 53(21), 6390-6407. <https://doi.org/10.1080/00207543.2014.931608>
48. Yu, W., & Ramanathan, R. (2016). Environmental management practices and environmental performance: The roles of operations and marketing capabilities. *Industrial Management & Data Systems*, 116(6), 1201-1222. <https://doi.org/10.1108/IMDS-09-2015-0380>
49. Younis, H., & Sundarakani, B. (2019). The impact of firm size firm age and environmental management certification on the relationship between green supply chain practices and corporate performance. *Benchmarking: An International Journal*, 27(1), 319-346. <https://doi.org/10.1108/BIJ-11-2018-0363>
50. Yusof, N. A., Tabassi, A. A., & Esa, M. (2020). Going beyond environmental regulations — The influence of firm size on the effect of green practices on corporate financial performance. *Corporate social responsibility and Environmental Management*, 27(1), 32-42. <https://doi.org/10.1002/csr.1771>
51. Yusoff, Y. M., Nejati, M., Kee, D. M. H., & Amran, A. (2020). Linking green human resource management practices to environmental performance in hotel industry. *Global Business Review*, 21(3), 663-680. <https://doi.org/10.1177/0972150918779294>