EXPLORING ESG CONFIGURATIONS FOR HIGHER FINANCIAL PERFORMANCE BY QUALITATIVE COMPARATIVE ANALYSIS: EVIDENCE FROM LISTED MANUFACTURING FIRM GOVERNANCE

Thi Kim Oanh Nguyen *, Thi Lan Huong Nguyen **

* *Corresponding author*, International School, Vietnam National University, Hanoi, Vietnam
Contact details: International School, Vietnam National University, 144 Xuan Thuy Street, Cau Giay District, Hanoi, Vietnam
** International School, Vietnam National University, Hanoi, Vietnam

How to cite this paper: Nguyen, T. K. O., & Nguyen, T. L. H. (2025). Exploring ESG configurations for higher financial performance by qualitative comparative analysis: Evidence from listed manufacturing firm governance. *Journal of Governance & Regulation, 14*(3), 81–92. https://doi.org/10.22495/jgrv14i3art8

ISSN Online: 2306-6784
ISSN Print: 2220-9352

Received: 08.08.2024
Revised: 16.11.2024; 11.12.2024; 28.06.2025
Accepted: 25.07.2025

JEL Classification: M41, M48
DOI: 10.22495/jgrv14i3art8

Abstract

The significance of environmental, social, and governance (ESG) performance has increased substantially as organizations seek to maximize long-term value creation through the alignment of shareholder objectives with broader stakeholder interests, enhanced organizational legitimacy, risk mitigation, reputational advancement, and stakeholder trust. Despite its nascent stage in Vietnam, ESG practices demonstrate potential for enhancing corporate financial performance. This research examines the impact of ESG configurations — defined as the interrelationships among the three ESG pillars rather than isolated effects — on the financial performance of Vietnamese listed manufacturing firms through the application of fuzzy-set qualitative comparative analysis (fsQCA) (Liu et al., 2022; Ragin, 2008b). The empirical evidence indicates improvement in ESG performance among listed manufacturing firms from 2017 to 2021. Moreover, the analysis identifies three distinct causal configurations associated with high financial performance, with the social pillar emerging as a fundamental component of these configurations. These empirical findings provide strategic implications for Vietnamese manufacturing firms seeking to optimize their ESG practices and financial outcomes, underscoring the necessity of implementing a comprehensive ESG framework with particular emphasis on social factors as critical determinants of financial success in this sector.

Keywords: Financial Performance, ESG, fsQCA, Manufacturing Firms, Vietnam

Authors' individual contribution: Conceptualization — T.K.O.N.; Methodology — T.K.O.N.; Formal Analysis — T.K.O.N.; Writing — Original Draft — T.L.H.N.; Writing — Review & Editing — T.K.O.N.; Supervision — T.K.O.N.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

Environmental, social, and governance (ESG) performance, a proxy for corporate social responsibility (CSR) and sustainability, has increased its importance and attracted great attention from market participants and academic researchers recently (Khan, 2022; Wan et al., 2023). Motives for ESG performance lie in the pursuit of the long-term wealth of the firm by aligning the shareholder's goal of value maximization and other stakeholders' interests (Freeman, 2002, 2010), and reinforcing the firm legitimacy (Archel et al., 2009; Suchman, 1995) with institutional reasons (DiMaggio & Powell, 1983). Firms with high ESG performance are more likely to financially perform better than their counterparts (Chen et al., 2023; Friede et al., 2015; Mohammad & Wasiuzzaman, 2021; Tsang et al., 2023), which might be a result of gaining the trust of stakeholders, and accumulatively improving firms' reputation in their contributions to global sustainable development goals (Chen et al., 2023). Also, better ESG performance helps to reduce firms' idiosyncratic risk by minimizing investors' opinion divergence (He et al., 2022), firm financing constraints (He et al., 2023), corporate risk (Chang et al., 2021), cash flow risk (Cheng & Feng, 2023), and increase firm competitive advantages (Jasni et al., 2020; Mohammad & Wasiuzzaman, 2021).

ESG practices vary between firms globally. ESG performance was higher in developed countries compared to developing countries (Bhatia & Makkar, 2020), which is because of variations of ESG practices between firms due to differences in developmental stages in different countries (Chapple & Moon, 2005). While developed countries in Europe, Oceania, and Northern America ESG reached a full-grown stage of ESG disclosure, this practice is spreading out with a steady expansion in Asia (Halkos & Nomikos, 2021). ESG practice is translated and adapted to ESG Western mainstreams to a specific context of developing countries based on meaningful understanding and practical CSR applications (Jamali et al., 2017).

ESG scoring of listed firms in developed countries is provided by various rating agencies, including Bloomberg, MSCI, Russell, and S&P Global (Luo et al., 2023). These agencies collect ESG firms' data sources (sustainability reports or corporate management reports) and then grade ESG performance to provide ESG scores, which are subsequently used for investment purposes by institutional investors (Shen et al., 2023).

The relationship between ESG performance and value of the firm is supported by stakeholder theory (Dung et al., 2024; Ghofar et al., 2024; Tran & Nguyen, 2023). Recent studies have largely established a positive relationship between ESG performance and financial outcomes (Bodhanwala & Bodhanwala, 2023; Kalyani & Mondal, 2024; Parikh et al., 2023; Shanaev & Ghimire, 2022; Wong et al., 2021). However, some studies present contrasting findings (Duque-Grisales & Aguilera-Caracuel, 2021; Whelan et al., 2021).

This study aims to comprehensively examine ESG practices in Vietnamese listed manufacturing companies and their impact on firms' financial performance. The primary objectives are twofold: firstly, to evaluate the ESG pillars specific to the Vietnamese manufacturing industry, and secondly, to elucidate the relationships between these ESG pillars and the financial outcomes of manufacturing firms in Vietnam. To achieve these objectives, the research addresses two key questions:

RQ1: How well do listed Vietnamese manufacturing firms perform on the three ESG pillars?

RQ2: Which configurations of E, S, and G pillars result in high financial performance?

Vietnam was selected to conduct this research for several reasons. First, the ESG rating of Vietnamese-listed firms has not been provided by any domestic or international rating agencies. This absence of an ESG score hinders the improvement of ESG practices and leaves Vietnam far behind other countries in ESG disclosure and ESG performance (PricewaterhouseCoopers [PWC] Vietnam, 2022). ESG is crucial for Vietnam's sustainable development, as the country could face losses of USD 523 billion (14.5% of gross domestic product (GDP)) by 2050 due to climate change. From 2016 to 2030, Vietnam could attract USD 753 billion in climate investments. The country recently received a USD 15.5 billion commitment from the Group of Seven (G7) for coal use reduction. In 2021, Vietnam issued USD 1.5 billion green bonds, ranked second in the Association of Southeast Asian Nations (ASEAN), a fivefold increase from 2020. As Vietnam prioritizes sustainability, ESG adoption becomes critical for businesses seeking long-term success (Tiệp, 2023).

Second, the Ministry of Finance requires listed Vietnamese firms to disclose some aspects of ESG performance as stated in Circular No. 155/2015/TT-BTC[1] (Hieu et al., 2019). A firm's performance on E, S, and G are required by various laws, and regulations in each field (PWC Vietnam, 2022). Most firms disclose their ESG performance in annual reports. Besides that, a growing number of listed firms have started to disclose their ESG performance in sustainability reports based on the Global Reporting Initiative (GRI) framework (Khuong et al., 2020). Although ESG reporting is not a common practice, firms are willing to practice ESG. About 36% of 234 surveyed enterprises are in the planning phase for ESG practices, and 44% of them commit to practicing ESG, which is mainly because of external pressures from customers, employees, and investors. Currently, governance is prioritized by 62% of surveyed companies rather than social and environmental responsibilities. Challenges for ESG practices in Vietnam lie in inadequate governance mechanism, leadership, a set of ESG indicators, and guidelines for data collection of those indicators. About 20% of surveyed companies have no commitment of ESG practices because of inadequate ESG knowledge and understanding and a shortage of clear guidelines. Among listed companies, only 35% planned and committed to ESG practices (PWC Vietnam, 2022).

Third, there have been relatively few ESG studies in Vietnam since 2000. Minh et al. (2022) review prior studies on CSR by analyzing 143 articles published in the last 21 years (2000–2020) and conclude a growing concern on CSR of both practitioners and researchers. The study points out that the study on ESG is still under-researched: a majority of published articles focused on "social" (62%), whereas only 12% of publications were on the "environmental" theme (Minh et al., 2022).

[1] https://thuvienphapluat.vn/van-ban/EN/Chung-khoan/Circular-No-155-2015-TT-BTC-information-disclosure-on-securities-market/294304/tieng-anh.aspx

A recent review conducted by Wahyuningrum et al. (2023). Found Vietnam ranked relatively low in publishing studies. Also, most studies on environmental responsibility disclosure. ESG studies in Vietnam were devoted to investigating the determinants of CSR. There were a few studies that provided empirical evidence on CSR impacts in the context of Vietnam (Minh et al., 2022).

This study focuses on Vietnam's manufacturing sector due to its economic significance and growing engagement with CSR. Manufacturing firms, traditionally associated with significant environmental impacts, have shown increased concern for environmental protection and climate change mitigation, even amidst the economic challenges posed by the COVID-19 pandemic (Mora-Contreras et al., 2023).

This study employed qualitative content analysis to score ESG performance, followed by fuzzy-set qualitative comparative analysis (fsQCA) to examine the relationship between ESG practices and financial performance in manufacturing firms (Kumar et al., 2022; Pappas & Woodside, 2021; Ragin & Amoroso, 2011). Initially, a scoring method was used to evaluate ESG pillars against GRI standards, converting qualitative data into quantitative metrics. Subsequently, fsQCA was applied to investigate how various combinations of ESG factors influence return on assets (ROA) across multiple cases. This methodological framework allows a nuanced exploration of complex, non-linear relationships between ESG configurations and financial outcomes in the manufacturing sector through a five-step analysis: 1) data preparation (cases, outcomes, and conditions), 2) data calibration of conditions and outcomes, 3) analysis of necessary conditions, 4) constructing a truth table, and 5) analysis of conditional configuration based on the truth table (Liu et al., 2022).

The results provide a comprehensive evaluation of ESG performance among listed manufacturing firms in Vietnam from 2017 to 2021. Also, the findings reveal three causal paths leading to high return on investment, highlighting the social pillar as a core component, often combined with environmental and/or governance factors. Our study has several contributions. Firstly, the study reveals the ESG performance of the largest listed Vietnamese manufacturing firms. Second, it provides empirical evidence on the relationship between ESG practices and financial performance from a configuration perspective rather than focusing on the net effect of a single ESG pillar.

The structure of this paper is as follows. Section 2 reviews the relevant literature. Section 3 presents the research methodology for scoring ESG performance and analyzing causal configurations for high financial performance. The results are presented in Section 4, followed by a discussion in Section 5. Section 6 concludes the paper with conclusions, implications, limitations, and suggestions for future research.

2. LITERATURE REVIEW

2.1. Global Reporting Initiative Standards and environmental, social, and governance performance

As stakeholders increasingly prioritize sustainability, firms adopt CSR reporting frameworks to improve their corporate accountability and standardization in sustainability reporting practices across industries (Halkos & Nomikos, 2021). Among various disclosure frameworks, the GRI has emerged as a prominent guide, widely recognized and globally employed (Leeson & Kuszewski, 2023; Li et al., 2024). GRI guidelines provide a comprehensive, globally applicable sustainability reporting structure with a distinguishing characteristic of advocacy for independent verification of sustainability performance data (Perello-Marin et al., 2022). This GRI framework facilitates organizational disclosure on their governance practices, environmental impacts, and social performance, significantly enhancing organizational transparency and accountability (Brown et al., 2009; Lamprinidi & Kubo, 2008; Li et al., 2024).

This study employs a comprehensive approach to measuring ESG performance using the GRI standards (Li et al., 2024). The governance pillar, based on GRI 2: General Disclosures 2021[2], comprises thirteen disclosures (2–9 to 2–21), providing a thorough assessment of an organization's governance structure, composition, and processes. The environmental pillar, based on GRI 300–2016 standards (GRI 301–308), comprehensively evaluates an organization's ecological impact and resource management. The social pillar, GRI 400–2016 (GRI 401–418), evaluates an organization's social impacts and management practices (Abu Al-Haija et al., 2021; Khan et al., 2023; Liu et al., 2022; Nial & Parashar, 2024).

2.2. Stakeholder theory

Stakeholder theory, formally introduced by Freeman (1984), argues that firms should create values for multi-stakeholders rather than solely for shareholders since firms are inherently part of a broader ecological and socio-economic ecosystem, necessitating the cultivation of relationships with diverse stakeholders (Freeman, 2002, 2010). Firms have a moral obligation to consider the interests of all stakeholders. While achieving financial outcomes, stakeholders should be prioritized as the "end" rather than the "means" (Donaldson & Preston, 1995). In the field of accounting and finance, Jensen (2010) argues that stakeholder-oriented management practices lead to financial performance due to consistency between shareholder value maximization and corporate fulfillment of ethical responsibilities towards all stakeholders. Thus, ESG practices can significantly contribute to shareholders' value creation in the long run (Talan et al., 2024; Veeravel et al., 2024).

2.3. Environmental, social, and governance performance and financial performance

The stakeholder theory provides a comprehensive explanation of the relationship between ESG practices and financial outcomes in the modern business context (Talan et al., 2024). These practices foster positive communication between firms and their consumers, thereby building customer trust and loyalty, appealing to socially conscious investors (Min et al., 2023), minimizing transaction and agency

[2] https://www.globalreporting.org/publications/documents/english/gri-2-general-disclosures-2021/

costs, leading to enhanced operational and managerial efficiencies (Ghoul et al., 2017), improving corporate reputation and capital access (Wong et al., 2021), and subsequently enhancing financial performance and firm value (Ghoul et al., 2017; Inamdar, 2024; Min et al., 2023; Wong et al., 2021).

Contemporary research has predominantly identified positive impacts of ESG practices on various financial indicators (Inamdar, 2024; Whelan et al., 2021). However, the literature also presents some conflicting evidence. For example, Duque-Grisales and Aguilera-Caracuel (2021) found a negative correlation between ESG practices and multinationals' financial outcomes in Latin America, while Liu et al. (2022) demonstrated that different ESG configurations can lead to varied financial outcomes in new energy companies. A comprehensive review by Whelan et al. (2021), examining over a thousand studies in a five-year period (2015–2020), provides a broader perspective. Their findings indicate that 58% of studies reported positive effects of ESG practices on financial performance, 13% showed a neutral effect, 21% presented mixed results, and only 8% found a negative correlation. This meta-analysis underscores the predominantly positive, albeit complex, nature of the ESG-financial performance relationship. Therefore, this study attempts to identify causal configurations leading to high financial performance of the largest Vietnamese listed manufacturing firms listed on the Ho Chi Minh Stock Exchange (HOSE).

3. RESEARCH METHODOLOGY

3.1. Sample and data collection

This study examined the 43 largest listed manufacturing companies included in the VN100 index (Table 1) on the HOSE. Data were collected from the sustainability and annual reports of these companies over a five-year period (2017–2021).

Table 1. Stock symbols of 43 firms included in the VN100 index, listed on the HOSE in Vietnam

No.	*Stock symbol*	*No.*	*Stock symbol*	*No.*	*Stock symbol*	*No.*	*Stock symbol*
1	AAA	12	GEX	23	NT2	34	REE
2	BMP	13	GMD	24	PAN	35	SAB
3	BWE	14	HBC	25	PC1	36	SBT
4	CTD	15	HNG	26	PHR	37	SCS
5	DBC	16	HPG	27	PLX	38	TMS
6	DCM	17	HSG	28	PNJ	39	VCG
7	DGC	18	HT1	29	POW	40	VGC
8	DHC	19	IMP	30	PPC	41	VHC
9	DPM	20	KDC	31	PTB	42	VNM
10	GAS	21	MSN	32	PVD	43	VSH
11	GEG	22	NKG	33	PVT		

3.2. Measurement

3.2.1. Evaluation of environmental, social, and governance performance by qualitative content analysis

Due to the absence of standardized ESG ratings in Vietnam, this study employs qualitative content analysis to evaluate ESG performance. This method, as defined by Krippendorff (2019), involves a systematic examination of written documents, converting qualitative information into categorized, quantitative data, enabling systematic numerical analysis, and cross-organizational comparisons. Although labor-intensive, this widely used method offers advantages in transparency, replicability, and adaptability to local contexts, considering for assessing sustainability reporting quality and scoring ESG performance (Abu Al-Haija et al., 2021; Dissanayake et al., 2016; Khan et al., 2023; Nial & Parashar, 2024).

In this study, a fully disclosed performance dimension was scored 10 points. The scores for E, S, G pillars are 70 points (seven performance dimensions from GRI 301 to GRI 306 and GRI 308), 180 points (eighteen performance dimensions from GRI 401 to GRI 418), and 130 points (thirteen performance dimension from GRI 2–9 to GRI 2–21). In each performance dimension, a fully disclosed indicator was scored as follows. A fully disclosed indicator = 10 / the number of indicators under a performance dimensions. For example, a fully disclosed of GRI 301 (Materials) gains 10 points. This performance dimension has three indicators, so each fully disclosed indicator gains a 10/3 score.

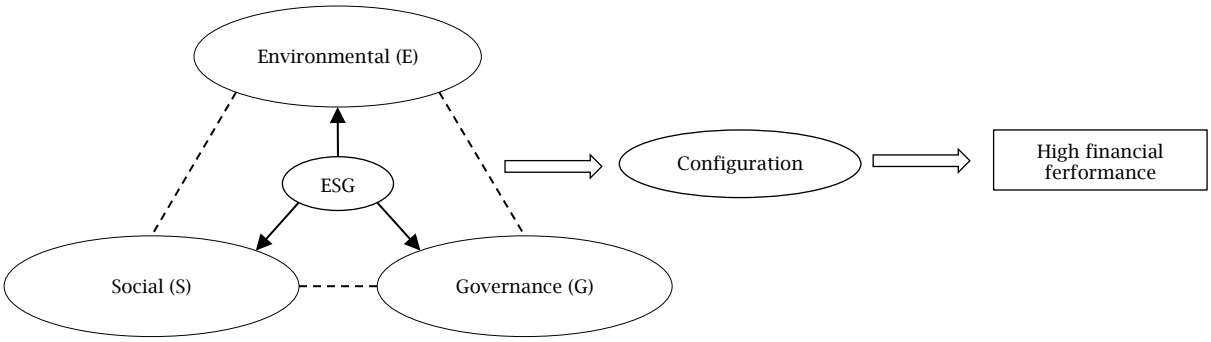
3.2.2. Financial performance

Return on assets was selected as the financial performance measure in this study, computed by dividing a company's net income by its average total assets. This indicator measures firm efficiency, providing insight into the company's overall financial health and operational effectiveness.

3.3. Fuzzy-set qualitative comparative analysis

Fuzzy-set qualitative comparative analysis refers to asymmetrical techniques using the logic of configuration to predict and explain real-world business phenomena, capturing combinations of conditions that are sufficient for occurrence of an outcome rather than focusing on the net effect of a single variable, as in regression analysis (Kumar et al., 2022; Pappas & Woodside, 2021; Rihoux & Ragin, 2009). Figure 1 shows the fsQCA framework to investigate ESG configurations leading to high financial performance.

Figure 1. Proposed framework of the study



Source: Liu et al. (2022).

The strength of qualitative comparative analysis (QCA) lies in its ability to identify and simply logically articulate statements describing conditional combinations leading to specific outcomes. Each configuration represents a unique set of interrelated causal variables that result in an observed outcome of interest. By synthesizing key concepts from both qualitative and quantitative analytical traditions, QCA provides a robust framework for investigating complex causal relationships, particularly in scenarios where conventional quantitative methods may be inadequate. This versatile approach has been successfully applied across diverse fields (Ragin, 2014).

The sample size of 43 listed manufacturing firms is well-suited for fsQCA analysis (Zhu et al., 2021), enabling examination of complex interactions between ESG factors and financial performance that traditional regression analysis might not capture (Llopis-Albert et al., 2021).

Two key parameters, consistency and coverage, are crucial for interpreting fsQCA results (Liu et al., 2022). If X is the membership in a combination of conditions, and Y is the membership in the outcome. These two parameters can be calculated as follows:

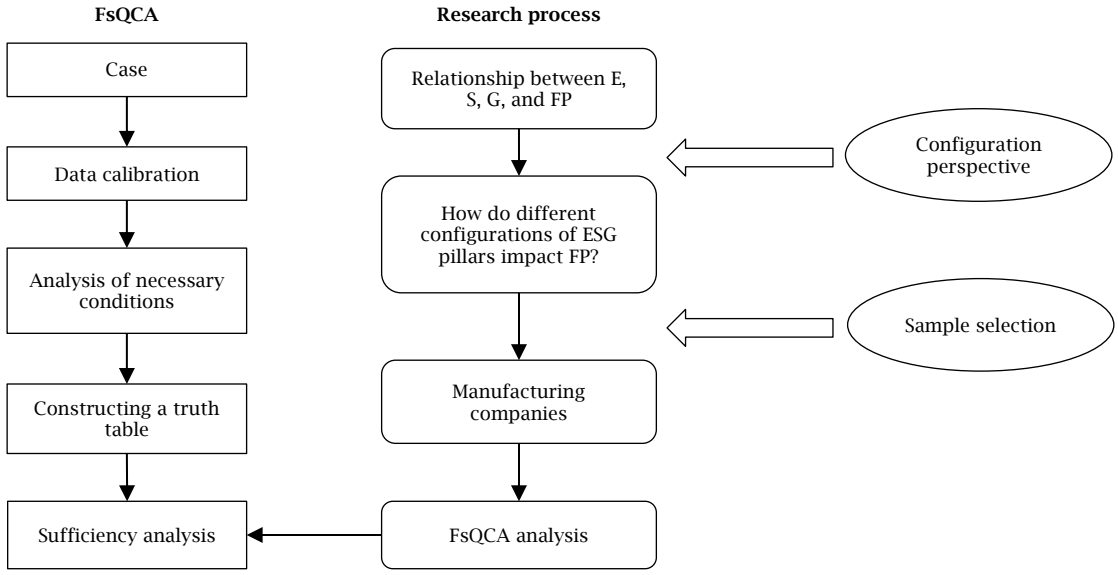
First consistency is calculated as consistency $(X \leq Y) = \Sigma min(X_i, Y_i)/\Sigma X_i$, showing how consistently a particular ESG configuration (X) leads to a desired financial outcome (Y). Here, X_i represents the membership score of a firm in an ESG configuration, while Y_i is its score in the financial outcome. This yields a score between 0 and 1, with higher values indicating stronger causal relationships. A consistency threshold of 0.9 or higher will be used to determine causally relevant ESG configurations (Fiss, 2011).

Second, coverage is calculated as coverage $(X \leq Y) = \Sigma min(X_i, Y_i)/\Sigma Y_i$, quantifying the extent to which specific combinations of ESG practices account for positive financial outcomes (Ragin, 2008b). Higher coverage values indicate that certain ESG configurations have greater explanatory power in relation to financial performance, suggesting more empirical importance in the Vietnamese manufacturing context (Schneider & Wagemann, 2012).

FsQCA 4.0 (2022 version) is commonly used for QCA analysis. Conditions are E, S, and G scores obtained through a scoring method, with higher scores indicating better performance (Liu et al., 2022). The outcome is financial performance (FP), measured by ROA, consistent with previous studies (Chen et al., 2023).

Figure 2 presents the fsQCA data analysis procedure and research process.

Figure 2. FsQCA data analysis procedure and research process



Source: Liu et al. (2022).

Data analysis consists of five steps. First, the dataset file (.csv) being compatible with the fsQCA software, was prepared. Second, data calibration was conducted to transform raw data into fuzzy sets. Third, in analyzing necessary conditions, we assess whether the outcome set is a subset of each condition set. Fourth, we created a truth table, which lists combinations of preconditions leading to an outcome, determining conditional configurations and their relationship to the outcome. Fifth, based on the truth table, conditional configurations were analyzed, allowing identification of core conditions and peripheral conditions.

4. RESULTS

4.1. Description of environmental, social, and governance performance and financial performance

Figure 3 illustrates the trend of ESG performance of listed manufacturing firms in Vietnam from 2017 to 2021. The overall ESG score shows a consistent upward trend, rising from 15.80 in 2017 to a peak of 18.07 in 2020, before slightly declining to 17.79 in 2021. Breaking down the components, the G pillar demonstrates the highest scores throughout the period, increasing from 7.33 in 2017 to 8.92 in 2021, indicating a strong focus on improving corporate governance practices. The S pillar shows moderate growth, starting at 6.26 in 2017 and reaching 6.29 in 2021, with a peak of 8.81 in 2020. The E pillar, while having the lowest scores, exhibits steady improvement from 2.21 in 2017 to 2.58 in 2021. This trend suggests that Vietnamese listed manufacturing companies have made significant progress in their overall ESG performance over the five-year period, with particular emphasis on governance improvements, while environmental practices, despite showing growth, may require further attention and development.

Figure 3. Environmental, social, and governance performance over five years (2017–2021)

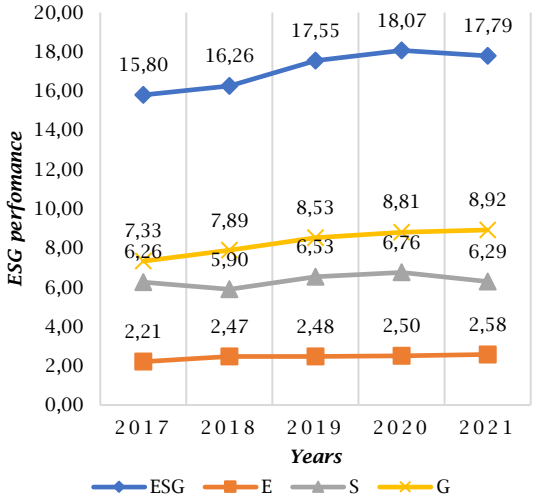
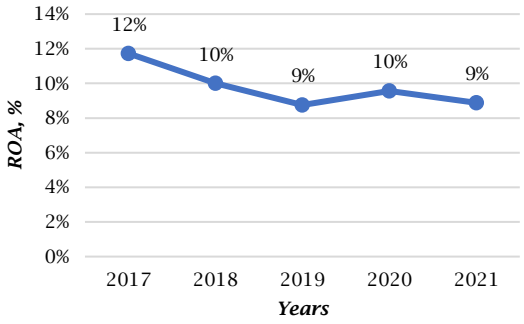


Figure 4 depicts the ROA trend for listed manufacturing companies in Vietnam from 2017 to 2021, showing an overall decline. ROA peaked at 12% in 2017, steadily decreased to 9% by 2019, briefly recovered to 10% in 2020, and then fell back to 9% in 2021. This pattern indicates a general decrease in profitability relative to total assets over the five-year period, with a total drop of three percentage points. This trend suggests that Vietnamese manufacturing companies faced ongoing challenges in maintaining profitability and asset efficiency, possibly due to factors such as increased competition, rising costs, or changes in the business environment.

Figure 4. Return on assets over five years (2017–2021)



4.2. Data calibration

Data calibration refers to the process of assigning membership degrees to a fuzzy set as a group (Ragin, 2008a). The values of 0.95, 0.50, and 0.05 were chosen as three thresholds, which denote full membership, the crossover point, and full non-membership, respectively. These three thresholds enable data to be converted into a log odds index ranging from 0 to 1. The absolute values of one (1) and zero (0) were not used as breakpoints because these two values correspond to positive and negative infinity, respectively, for the log of the odds (Ragin, 2008a).

Instead, we employed indirect calibration using percentiles function in SPSS. The percentile approach is useful for calibrating any measurement regardless of its initial value (Liu et al., 2022; Paolone et al., 2022). The values 0.95, 0.50, and 0.05 percentiles were selected as the three thresholds, which were subsequently transformed into fuzzy sets with values of 1 for full membership, 0.5 for the crossover point, and 0 for full non-membership, respectively. After data calibration, E, S, and G were coded as E2, S2, and G2. Table 2 presents descriptive statistics for variables, generated using SPSS, before their transformation into fuzzy membership scores.

Table 2. Three thresholds of variables

Year	*Variables*	*95th percentiles*	*50th percentiles*	*5th percentiles*
2017	*E*	4.8	2.4	0
	S	13.2	5.1	0.8
	G	12	7.1	2.9
	ROA	34%	8%	2%
	ROE	37%	16%	5%
2018	*E*	5.3	2.5	0.1
	S	13.2	4.8	2.0
	G	12	7.6	5.2
	ROA	32%	8%	1%
	ROE	38%	15%	1%
2019	*E*	5.1	2.5	0.4
	S	13.4	6.2	2.1
	G	12.8	8.5	5.6
	ROA	27%	7%	1%
	ROE	33%	12%	1%
2020	*E*	5.1	2.5	0.4
	S	13.4	6.2	2.1
	G	12.8	8.5	5.6
	ROA	27%	7%	1%
	ROE	44%	13%	1%
2021	*E*	5.1	2.5	0.4
	S	12.3	5.1	2.5
	G	12	8.5	6.6
	ROA	32%	7%	0%
	ROE	40%	12%	0%

Note: E: environmental, S: social, G: governance, ROA: return on assets, and ROE: return on equity. E, S, and G are the original amounts.

4.3. Analysis of necessary conditions

A preliminary analysis examines individual ESG pillars as necessary conditions for high FP, using a consistency threshold of 0.9 (Fiss, 2011). Conditions exceeding this threshold are considered necessary and should have coverage above 0.5 to demonstrate empirical relevance (Schneider & Wagemann, 2012). Table 3 shows that all ESG pillars show consistency values below 0.9 from 2017 to 2021 (Fiss, 2011), indicating that none of the individual ESG pillars are necessary conditions for high FP in Vietnamese manufacturing firms. The absence of necessary conditions implies that the financial outcomes of these firms are likely impacted by complex combinations of individual ESG factors, rather than by any single pillar in isolation.

Table 3. Necessary conditions for high return on assets and return on equity

Year	*Conditions*	*High ROA*		*High ROE*	
		Consistency	*Coverage*	*Consistency*	*Coverage*
2021	*E2*	0.7	0.63	0.68	0.66
	~E2	0.72	0.63	0.70	0.66
	S2	0.73	0.64	0.71	0.67
	~S2	0.64	0.57	0.63	0.61
	G2	0.69	0.61	0.67	0.64
	~G2	0.74	0.66	0.71	0.68
2020	*E2*	0.63	0.6	0.65	0.64
	~E2	0.74	0.64	0.74	0.65
	S2	0.64	0.62	0.64	0.64
	~S2	0.67	0.58	0.68	0.60
	G2	0.68	0.62	0.69	0.64
	~G2	0.72	0.66	0.71	0.67
2019	*E2*	0.67	0.65	0.66	0.68
	~E2	0.68	0.61	0.68	0.66
	S2	0.7	0.68	0.69	0.71
	~S2	0.62	0.57	0.64	0.62
	G2	0.64	0.57	0.65	0.62
	~G2	0.7	0.68	0.69	0.73
2018	*E2*	0.65	0.6	0.64	0.64
	~E2	0.74	0.61	0.72	0.64
	S2	0.69	0.63	0.69	0.68
	~S2	0.64	0.53	0.63	0.56
	G2	0.64	0.6	0.64	0.65
	~G2	0.69	0.57	0.67	0.59
2017	*E2*	0.69	0.67	0.67	0.63
	~E2	0.68	0.56	0.64	0.52
	S2	0.78	0.68	0.75	0.63
	~S2	0.59	0.55	0.56	0.51
	G2	0.76	0.66	0.77	0.66
	~G2	0.65	0.59	0.63	0.56

Note: "~" shows the condition's the absence.

4.4. Constructing the truth table and analyzing causal configurations for sufficient conditions

Before the analysis of causal configurations, the truth table was constructed, presenting combinations of *E*, *S*, and *G* pillars leading to high *ROA*. All *E*, *S*, *G* pillars, and *ROA* were presented as one (1) for full membership and zero (0) for full non-membership. To identify specific ESG configurations leading to high FP, a conditional configuration sufficiency analysis using fsQCA was conducted. This analysis generates complex, reduced, and intermediate solutions (Fiss, 2011; Liu et al., 2022). Following prior studies (Fiss, 2011; Liu et al., 2022), core conditions were defined as those appearing in both intermediate and reduced solutions. Table 4 presents the results of our fsQCA analysis using fsQCA 4.0 software, showing identifies six configurations that consistently generate high FP during the 2017–2021 period for Vietnamese manufacturing firms. These configurations demonstrate the complex interplay between *E2*, *S2*, and *G2* pillars in driving FP.

Table 4. Environmental, social, and governance configurations for high return on assets

Variables	*Configurations*					
	2021	*2020*		*2019*	*2018*	*2017*
	1	*2*	*3*	*4*	*5*	*6*
E2	⊗	⊗	•		⊗	•
S2	•	•	⊗	•	•	⊗
G2	⊗	⊗	⊗	⊗		•
Consistency	0.84	0.89	0.82	0.83	0.78	0.80
Raw coverage	0.43	0.43	0.43	0.50	0.50	0.37
Unique coverage	0.43	0.13	0.13	0.50	0.50	0.37
Overall solution consistency	0.84	0.82		0.83	0.78	0.80
Overall solution coverage	0.43	0.56		0.50	0.50	0.37

Note: • indicates the presence of the core condition is present, and ⊗ indicates the absence of the core condition. Otherwise, a condition does not play a role in a specific configuration.

In 2020 and 2021, configurations 1 and 2 share the same pattern *(~E2S2~G2)*, reinforcing the crucial role of social practices in achieving high *ROA*, even when environmental and governance performances are weak. In 2000, configuration 3 (*E2~S2~G2*) presents an interesting case where strong environmental practices alone can drive high *ROA*, despite weak social and governance performance. In 2019, configuration 4 (*S2~G2*) further emphasizes the importance of social practices, showing that strong social performance can lead to high *ROA* even with weak governance. The *E2* pillar is not significant in this configuration. In 2018, configuration 5 *(~E2S2*) suggests that robust social practices can compensate for weak environmental performance to achieve high FP. In this case, *S2* is the core condition, while the absence of *E2* is peripheral. The *G2* pillar appears to be indifferent in this configuration. In 2017, configuration 6 (*E2~S2G2*) indicates that strong environmental and governance practices can lead to high FP even with weak social performance. Here, *E2* and *G2* are core conditions, while the absence of *S2* is a peripheral condition.

Table 5 presents the cases covered by configurations leading to high FP. Typical cases are defined as those with both antecedent and outcome membership scores exceeding 0.5, indicating strong alignment with the identified configurations. Notably, Refrigeration Electrical Engineering Corporation (REE) and Hoa Phat Group (HPG) emerge as prominent examples, appearing in various configurations with presence of the *S2* pillar as a core condition for achieving high *ROA*. Recurring presence of these two firms across these configurations underscores the company's strong social performance and its pivotal role in driving financial success. This pattern suggests that REE and approach to social responsibility and stakeholder management may serve as a benchmark for other firms in Vietnam's manufacturing sector.

Table 5. Cases covered by the configuration on a high return on assets

Configuration	*Year*	*Stock symbol of the covered cases*
(1) *~E2S2~G2*	2021	VGC (0.61), HSG (0.68), REE (0.77)
(2) *~E2S2~G2*	2020	IMP (0.54), HPG (0.68), REE (0.7)
(3) *E2~S2~G2*		PVD (0.53), GAS (0.53), TMS (0.58), BWE (0.71), NT2 (0.81)
(4) *S2~G2*	2019	SAB (0.53), REE (0.62), SCS (0.66), PVT (0.66), PC1 (0.66), HT1 (0.66), AAA (0.75), HPG (0.86)
(5) *~E2S2*	2018	HSG (0.51), VGC (0.62), HPG (0.66), PLX (0.76), SCS (0.76)
(6) *E2~S2G2*	2017	PVD (0.55), GAS (0.56)

Note: "~" shows the condition's the absence.

4.5. Robustness checks

The robustness test was conducted to reinforce the findings by replicating the fsQCA analysis for *ROE* as an alternative financial measure. The 95th, 50th, and 5th percentiles of *ROE* were presented in Table 2, followed by the necessary conditions for high *ROE* in Table 3. Table 6 shows ESG configurations for high *ROE*, while Table 7 presents firms achieving high *ROE*. There were five causal configurations leading to high *ROE*, including *S2~G2* (2021), *E2S2~G2* (2020 and 2019), *~E2S2* (2020, 2019, 2018), *E2G2* (2018), and *E2~S2G2* (2017).

The robustness check indicates that configurations leading to high *ROA*, including *E2~S2G2* in 2017, *~E2S2* in 2018, S2~G2 in 2019, also produce high *ROE* for the firms: 1) *E2~S2G2* in 2017, 2) *~E2S2* in 2018, 2019, 2020, and 3) *S2~G2* in 2021. The configuration *~E2S2* shows that strong performance on the social pillar leads to high FP despite weak environmental or governance performance. If firms do not perform well on social performance, they must excel in environmental and governance performance. There are two configurations (*~E2S2~G2* and *E2~S2~G2*) that lead to high *ROA*, but not *ROE*. The firms can achieve

high *ROE* by performing well on both environmental and social performance (*E2S2~G2*), or environmental and governance performance (*E2S2~G2*). REE and HPG are two firms were covered by various causal configurations for high *ROA* and high *ROE*.

Table 6. Environmental, social, and governance configurations for high return on equity

Variables	*Configurations*							
	2021	*2020*		*2019*		*2018*		*2017*
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
E2		●	⊗		⊗	⊗	●	●
S2	●		●	●	●	●		⊗
G2	⊗	⊗		⊗			●	●
Consistency	0.79	0.77	0.80	0.87	0.82	0.83	0.78	0.77
Raw coverage	0.50	0.52	0.49	0.49	0.48	0.50	0.51	0.36
Unique coverage	0.50	0.16	0.13	0.08	0.07	0.17	0.19	0.36
Overall solution consistency	0.79	0.72		0.79		0.77		0.77
Overall solution coverage	0.50	0.65		0.56		0.68		0.36

Note: ● indicates the presence of the core condition is present, and ⊗ indicates the absence of the core condition. Otherwise, a condition does not play a role in a specific configuration.

Table 6. Cases covered by the configuration on a high return on equity

Configuration	*Year*	*Stock symbol of the covered cases*
(1) *S2~G2*	2021	HSG (0.83), REE (0.79), SAB (0.69), PC1 (0.69), PVT (0.69), IMP (0.65), NKG (0.61), VGC (0.61)
(2) *E2S2~G2*	2020	AAA (0.83), NKG (0.81), NT2 (0.81), BWE (0.71), PVT (0.62), TMS (0.58), GAS (0.53), PC1 (0.53), PVD (0.53)
(3) *~E2S2*		REE (0.77), HSG (0.76), HPG (0.68), SCS (0.68), PLX (0.68), IMP (0.54)
(4) *E2S2~G2*	2019	HPG (0.86), AAA (0.75), HT1 (0.66), PC1 (0.66), SCS (0.66), REE (0.62), SAB (0.53), PVT (0.66)
(5) *~E2S2*		REE (0.75), SCS (0.72), PLX (0.72), HSG (0.68), HPG (0.66), VGC (0.57), CTD (0.53)
(6) *~E2S2*	2018	SCS (0.76), PLX (0.76), REE (0.75), HPG (0.66), VGC (0.62), HSG (0.51)
(7) *E2G2*		PNJ (0.95),VNM (0.94), SBT (0.91), MSN (0.78), SBT (0.91), GAS (0.53), PVD (0.53)
(8) *E2~S2G2*	2017	GAS (0.56), PVD (0.55)

Note: "~" shows the condition's the absence.

5. DISCUSSION

Our findings reveal three distinct ESG configurations leading to high FP (ROA and ROE), with the *S* pillar emerging as a crucial condition for high FP across all time frames. Notably, strong social performance often compensates for weaknesses in other areas. The finding is consistent with Liu et al. (2022), who conducted the study on the relationship between ESG pillars and FP of Chinese new energy firms, finding that the strong social pillar significantly contributes to high FP. Our findings support previous research on the positive effect of social activism and CSR on financial outcomes (Ali et al., 2020). There were some configurations leading to high *ROA*, but not ROE, and vice versa, suggesting that firms can adopt distinct ESG strategies to achieve high ROE. Noticeably, the E pillar in combination with the S or G pillar can help firms achieve high ROE.

ROE configurations generally cover more cases than ROA configurations, although some configurations leading to high ROA have fewer cases but higher consistency scores. Over time, certain companies maintain high performance across multiple years, but through different ESG configurations such as REE and HPG, suggesting successful adaptation of ESG strategies. This temporal variation indicates that firms must dynamically adjust their ESG practices to maintain strong FP.

6. CONCLUSION

This study examines the ESG performance of 43 Vietnamese listed manufacturing companies from 2017–2021, using fsQCA to identify configurations associated with superior financial outcomes. The analysis reveals multiple pathways to high FP, with the S pillar emerging as a core condition, often complemented by E and G factors. The research contributes to existing literature in three ways. First, it provides empirical evidence on ESG configurations' effects on FP in developing countries. Second, it employs a longitudinal fsQCA approach, offering insights into the evolution of ESG-FP relationships over time. Third, it highlights the complex interplay between ESG factors and FP in Vietnam's manufacturing sector.

These findings have important implications for firms seeking to optimize their ESG strategies based on specific FP objectives. A key finding is that strong social practices appear to be a critical differentiator for FP among Vietnamese manufacturing firms. This insight has significant implications for corporate strategy and policy-making, suggesting increased focus on social responsibility initiatives may enhance financial outcomes. The analysis suggests that companies may need to adopt different ESG configurations depending on whether they prioritize ROA or ROE improvement. Furthermore, the successful cases demonstrate that maintaining high FP requires adaptability in ESG practices over time, responding to changing market conditions and stakeholder expectations.

Our study is subject to several limitations. First, the ESG performance was manually scored through qualitative content analysis, which suffers from inherent subjectivity. Second, the data were collected from 43 listed firms under the VN100 index over five years (2017–2021), which might not represent all industries. Future studies could improve the objectivity of ESG scoring methods by employing artificial intelligence techniques. Furthermore, future studies could increase the sample size to conduct regression analysis and compare the findings with fsQCA to obtain more insightful findings about the relationship between ESG performance and FP.

REFERENCES

Abu Al-Haija, E., Kolsi, M. C., & Kolsi, M. C. C. (2021). Corporate social responsibility in Islamic banks: To which extent does Abu Dhabi Islamic bank comply with the global reporting initiative standards? *Journal of Islamic Accounting and Business Research, 12*(8), 1200–1223. https://doi.org/10.1108/JIABR-11-2020-0346

Ali, H. Y., Danish, R. Q., & Asrar-ul-Haq, M. (2020). How corporate social responsibility boosts firm financial performance: The mediating role of corporate image and customer satisfaction. *Corporate Social Responsibility and Environmental Management, 27*(1), 166–177. https://doi.org/10.1002/csr.1781

Archel, P., Husillos, J., Larrinaga, C., & Spence, C. (2009). Social disclosure, legitimacy theory and the role of the state. *Accounting, Auditing & Accountability Journal, 22*(8), 1284–1307. https://doi.org/10.1108/09513570910999319

Bhatia, A., & Makkar, B. (2020). CSR disclosure in developing and developed countries: A comparative study. *Journal of Global Responsibility, 11*(1), 1–26. https://doi.org/10.1108/JGR-04-2019-0043

Bodhanwala, S., & Bodhanwala, R. (2023). Environmental, social and governance performance: Influence on market value in the COVID-19 crisis. *Management Decision, 61*(8), 2442–2466. https://doi.org/10.1108/MD-08-2022-1084

Brown, H. S., de Jong, M., & Lessidrenska, T. (2009). The rise of the Global Reporting Initiative: A case of institutional entrepreneurship. *Environmental Politics, 18*(2), 182–200. https://doi.org/10.1080/09644010802682551

Chang, Y., Du, X., & Zeng, Q. (2021). Does environmental information disclosure mitigate corporate risk? Evidence from China. *Journal of Contemporary Accounting & Economics, 17*(1), Article 100239. https://doi.org/10.1016/j.jcae.2020.100239

Chapple, W., & Moon, J. (2005). Corporate social responsibility (CSR) in Asia: A seven-country study of CSR web site reporting. *Business & Society, 44*(4), 415–441. https://doi.org/10.1177/0007650305281658

Chen, S., Song, Y., & Gao, P. (2023). Environmental, social, and governance (ESG) performance and financial outcomes: Analyzing the impact of ESG on financial performance. *Journal of Environmental Management, 345*, Article 118829. https://doi.org/10.1016/j.jenvman.2023.118829

Cheng, X., & Feng, C. (2023). Does environmental information disclosure affect corporate cash flow? An analysis by taking media attentions into consideration. *Journal of Environmental Management, 342*, Article 118295. https://doi.org/10.1016/j.jenvman.2023.118295

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*(2), 147–160. https://doi.org/10.2307/2095101

Dissanayake, D., Tilt, C., & Xydias-Lobo, M. (2016). Sustainability reporting by publicly listed companies in Sri Lanka. *Journal of Cleaner Production, 129*, 169–182. https://doi.org/10.1016/j.jclepro.2016.04.086

Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *The Academy of Management Review, 20*(1), 65–91. https://doi.org/10.2307/258887

Dung, N. T. P., Anh, N. T. M., Toan, P. H., Hieu, L. T., Linh, N. T., & Hang, H. T. (2024). The impact of environmental, social, and governance information on individual stock investment decisions. *Risk Governance and Control: Financial Markets & Institutions, 14*(2), 32–43. https://doi.org/10.22495/rgcv14i2p4

Duque-Grisales, E., & Aguilera-Caracuel, J. (2021). Environmental, social and governance (ESG) scores and financial performance of multilatinas: Moderating effects of geographic international diversification and financial slack. *Journal of Business Ethics, 168*, 315–334. https://doi.org/10.1007/s10551-019-04177-w

Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal, 54*(2), 393–420. https://doi.org/10.5465/amj.2011.60263120

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Pittman-Ballinger.

Freeman, R. E. (2002). Stakeholder theory of the modern corporation. In T. Donaldson & P. Werhane (Eds.), *Ethical issues in business: A philosophical approach* (pp. 38–48). Prentice Hall.

Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge University Press. https://doi.org/10.1017/CBO9781139192675

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment, 5*(4), 210–233. https://doi.org/10.1080/20430795.2015.1118917

Ghofar, A., Muhammad, M., & Maneemai, P. (2024). Adapting to uncertainty: Gender diversity in boardrooms and its role in enhancing sustainable corporate governance and ESG performance in the era of COVID-19. *Corporate Board: Role, Duties and Composition, 20*(1), 80–91. https://doi.org/10.22495/cbv20i1art7

Ghoul, S. E., Guedhami, O., & Kim, Y. (2017). Country-level institutions, firm value, and the role of corporate social responsibility initiatives. *Journal of International Business Studies, 48*, 360–385. https://doi.org/10.1057/jibs.2016.4

Halkos, G., & Nomikos, S. (2021). Corporate social responsibility: Trends in global reporting initiative standards. *Economic Analysis and Policy, 69*, 106–117. https://doi.org/10.1016/j.eap.2020.11.008

He, F., Qin, S., Liu, Y., & Wu, J. (2022). CSR and idiosyncratic risk: Evidence from ESG information disclosure. *Finance Research Letters, 49*, Article 102936. https://doi.org/10.1016/j.frl.2022.102936

He, G., Liu, Y., & Chen, F. (2023). Research on the impact of environment, society, and governance (ESG) on firm risk: An explanation from a financing constraints perspective. *Finance Research Letters, 58*, Article 104038. https://doi.org/10.1016/j.frl.2023.104038

Hieu, P. D., Thuy, L. T. T., Ngoc, H. T. B., & Lam, N. T. H. (2019). Mandatory social and environmental disclosure of listed companies in Vietnam. *Academy of Accounting and Financial Studies Journal, 23*(5). https://www.abacademies.org/articles/Mandatory-Social-and-Environmental-Disclosure-of-Listed-Companies-in-Vietnam-1528-2635-23-5-476.pdf

Inamdar, M. M. (2024). Moderating role of ESG disclosures and its impact on firm financial performance. *The Quarterly Review of Economics and Finance, 97*, Article 101892. https://doi.org/10.1016/j.qref.2024.101892

Jamali, D., Karam, C., Yin, J., & Soundararajan, V. (2017). CSR logics in developing countries: Translation, adaptation and stalled development. *Journal of World Business, 52*(3), 343–359. https://doi.org/10.1016/j.jwb.2017.02.001

Jasni, N. S., Yusoff, H., Zain, M. M., Yusoff, N., & Shaffee, N. S. (2020). Business strategy for environmental social governance practices: Evidence from telecommunication companies in Malaysia. *Social Responsibility Journal, 16*(2), 271–289. https://doi.org/10.1108/SRJ-03-2017-0047

Jensen, M. C. (2010). Value maximization, stakeholder theory, and the corporate objective function. *Journal of Applied Corporate Finance, 22*(1), 32–42. https://doi.org/10.1111/j.1745-6622.2010.00259.x

Kalyani, S., & Mondal, R. (2024). Is ESG disclosure creating value propositions for the firms? An SLR and meta-analysis of how ESG affects the financials of a firm. *Corporate Ownership & Control, 21*(1), 96–117. https://doi.org/10.22495/cocv21i1art9

Khan, I., Fujimoto, Y., Uddin, M. J., & Afridi, M. A. (2023). Evaluating sustainability reporting on GRI standards in developing countries: A case of Pakistan. *International Journal of Law and Management, 65*(3), 189–208. https://doi.org/10.1108/IJLMA-01-2022-0016

Khan, M. A. (2022). ESG disclosure and firm performance: A bibliometric and meta analysis. *Research in International Business and Finance, 61*, Article 101668. https://doi.org/10.1016/j.ribaf.2022.101668

Khuong, N. V., Khanh, T. H. T., Thu, P. A., & Linh, B. N. (2020). Corporate environmental disclosure practices in Vietnam. *Research in World Economy, 11*(1), 143–152. https://doi.org/10.5430/rwe.v11n1p143

Krippendorff, K. (2019). *Content analysis: An introduction to its methodology* (4th ed.). Sage Publications. https://doi.org/10.4135/9781071878781

Kumar, S., Sahoo, S., Lim, W. M., Kraus, S., & Bamel, U. (2022). Fuzzy-set qualitative comparative analysis (fsQCA) in business and management research: A contemporary overview. *Technological Forecasting and Social Change, 178*, Article 121599. https://doi.org/10.1016/j.techfore.2022.121599

Lamprinidi, S., & Kubo, N. (2008). Debate: The global reporting initiative and public agencies. *Public Money & Management, 28*(6), 326–329. https://doi.org/10.1111/j.1467-9302.2008.00663.x

Leeson, R., & Kuszewski, J. (2023). GRI and stakeholder engagement: setting standards in the public interest. *Sustainability Accounting, Management and Policy Journal, 14*(4), 877–883. https://doi.org/10.1108/SAMPJ-06-2022-0329

Li, B., Duan, Z., & Cai, Q. (2024). Exploring the nexus between past financial performance and voluntary GRI adoption: The role of environmental certification. *Finance Research Letters, 66*, Article 105656. https://doi.org/10.1016/j.frl.2024.105656

Liu, P., Zhu, B., Yang, M., & Chu, X. (2022). ESG and financial performance: A qualitative comparative analysis in China's new energy companies. *Journal of Cleaner Production, 379*, Article 134721. https://doi.org/10.1016/j.jclepro.2022.134721

Llopis-Albert, C., Palacios-Marqués, D., & Simón-Moya, V. (2021). Fuzzy set qualitative comparative analysis (fsQCA) applied to the adaptation of the automobile industry to meet the emission standards of climate change policies via the deployment of electric vehicles (EVs). *Technological Forecasting and Social Change, 169*, Article 120843. https://doi.org/10.1016/j.techfore.2021.120843

Luo, D., Yan, J., & Yan, Q. (2023). The duality of ESG: Impact of ratings and disagreement on stock crash risk in China. *Finance Research Letters, 58*, Article 104479. https://doi.org/10.1016/j.frl.2023.104479

Min, J., Kim, J., & Yang, K. (2023). CSR attributions and the moderating effect of perceived CSR fit on consumer trust, identification, and loyalty. *Journal of Retailing and Consumer Services, 72*, Article 103274. https://doi.org/10.1016/j.jretconser.2023.103274

Minh, N., Khan, M., & Bensemann, J. (2022). Corporate social responsibility in Vietnam: Systematic review of research and future directions. *Society and Business Review, 17*(1), 92–119. https://doi.org/10.1108/SBR-09-2020-0114

Mohammad, W. M. W., & Wasiuzzaman, S. (2021). Environmental, social and governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia. *Cleaner Environmental Systems, 2*, Article 100015. https://doi.org/10.1016/j.cesys.2021.100015

Mora-Contreras, R., Ormazabal, M., Hernández-Salazar, G., Torres-Guevara, L. E., Mejia-Villa, A., Prieto-Sandoval, V., & Carrillo-Hermosilla, J. (2023). Do environmental and cleaner production practices lead to circular and sustainability performance? Evidence from Colombian manufacturing firms. *Sustainable Production and Consumption, 40*, 77–88. https://doi.org/10.1016/j.spc.2023.06.004

Nial, N., & Parashar, P. (2024). A comparative study on sustainability standards with specific reference to GRI standards and BRSR framework. *International Journal of Quality & Reliability Management, 41*(7), 1752–1782. https://doi.org/10.1108/IJQRM-02-2023-0028

Paolone, F., Cucari, N., Wu, J., & Tiscini, R. (2022). How do ESG pillars impact firms' marketing performance? A configurational analysis in the pharmaceutical sector. *Journal of Business & Industrial Marketing, 37*(8), 1594–1606. https://doi.org/10.1108/JBIM-07-2020-0356

Pappas, I. O., & Woodside, A. G. (2021). Fuzzy-set qualitative comparative analysis (fsQCA): Guidelines for research practice in information systems and marketing. *International Journal of Information Management, 58*, Article 102310. https://doi.org/10.1016/j.ijinfomgt.2021.102310

Parikh, A., Kumari, D., Johann, M., & Mladenović, D. (2023). The impact of environmental, social and governance score on shareholder wealth: A new dimension in investment philosophy. *Cleaner and Responsible Consumption, 8*, Article 100101. https://doi.org/10.1016/j.clrc.2023.100101

Perello-Marin, M. R., Rodríguez-Rodríguez, R., & Alfaro-Saiz, J.-J. (2022). Analysing GRI reports for the disclosure of SDG contribution in European car manufacturers. *Technological Forecasting and Social Change, 181*, Article 121744. https://doi.org/10.1016/j.techfore.2022.121744

PricewaterhouseCoopers (PWC) Vietnam. (2022). *Từ tham vọng đến hành động: Báo cáo về Mức độ sẵn sàng thực hành ESG tại Việt Nam năm 2022* [From ambition to action: ESG readiness report in Vietnam 2022]. https://www.pwc.com/vn/vn/publications/2022/pwc-vietnam-esg-readiness-2022-vn.pdf

Ragin, C. C. (2008a). Measurement versus calibration: A set-theoretic approach. In J. M. Box-Steffensmeier, H. E. Brady, & D. Collier (Eds.), *The Oxford handbook of political methodology* (pp. 174–198). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199286546.003.0008

Ragin, C. C. (2008b). *Redesigning social inquiry: Fuzzy sets and beyond*. University of Chicago Press. https://doi.org/10.7208/chicago/9780226702797.001.0001

Ragin, C. C. (2014). *The comparative method: Moving beyond qualitative and quantitative strategies.* University of California Press. https://doi.org/10.1525/9780520957350

Ragin, C. C., & Amoroso, L. M. (2011). *Constructing social research: The unity and diversity of method*. Pine Forge Press.

Rihoux, B., & Ragin, C. C. (2009). *Configurational comparative methods: Qualitative comparative analysis (QCA) and related techniques*. Sage Publications. https://doi.org/10.4135/9781452226569

Schneider, C. Q., & Wagemann, C. (2012). *Set-theoretic methods for the social sciences: A guide to qualitative comparative analysis*. Cambridge University Press. https://doi.org/10.1017/CBO9781139004244

Shanaev, S., & Ghimire, B. (2022). When ESG meets AAA: The effect of ESG rating changes on stock returns. *Finance Research Letters, 46*, Article 102302. https://doi.org/10.1016/j.frl.2021.102302

Shen, H., Lin, H., Han, W., & Wu, H. (2023). ESG in China: A review of practice and research, and future research avenues. *China Journal of Accounting Research, 16*(4), Article 100325. https://doi.org/10.1016/j.cjar.2023.100325

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *The Academy of Management Review, 20*(3), 571–610. https://doi.org/10.2307/258788

Talan, G., Sharma, G. D., Pereira, V., & Muschert, G. W. (2024). From ESG to holistic value addition: Rethinking sustainable investment from the lens of stakeholder theory. *International Review of Economics & Finance, 96*, Article 103530. https://doi.org/10.1016/j.iref.2024.103530

Tiệp, N. (2023, November 9). *Áp dụng ESG để phát triển bền vững* [Applying ESG for sustainable development]. https://nhandan.vn/ap-dung-esg-de-phat-trien-ben-vung-post734701.html

Tran, N. H., & Nguyen, T. T. H. (2023). Examining the drivers of ESG adoption: Empirical findings from a developing market. *Corporate & Business Strategy Review, 4*(4), 168–176. https://doi.org/10.22495/cbsrv4i4art15

Tsang, A., Frost, T., & Cao, H. (2023). Environmental, social, and governance (ESG) disclosure: A literature review. *The British Accounting Review, 55*(1), Article 101149. https://doi.org/10.1016/j.bar.2022.101149

Veeravel, V., Murugesan, V. P., & Narayanamurthy, V. (2024). Does ESG disclosure really influence the firm performance? Evidence from India. *The Quarterly Review of Economics and Finance, 95*, 193–202. https://doi.org/10.1016/j.qref.2024.03.008

Wahyuningrum, I. F. S., Humaira, N. G., Budihardjo, M. A., Arumdani, I. S., Puspita, A. S., Annisa, A. N., Sari, A. M., & Djajadikerta, H. G. (2023). Environmental sustainability disclosure in Asian countries: Bibliometric and content analysis. *Journal of Cleaner Production, 411*, Article 137195. https://doi.org/10.1016/j.jclepro.2023.137195

Wan, G., Dawod, A. Y., Chanaim, S., & Ramasamy, S. S. (2023). Hotspots and trends of environmental, social and governance (ESG) research: A bibliometric analysis. *Data Science and Management, 6*(2), 65–75. https://doi.org/10.1016/j.dsm.2023.03.001

Whelan, T., Atz, U., van Holt, T., & Clark, C. (2021). *ESG and financial performance: Uncovering the relationship by aggregating evidence from 1,000 plus studies published between 2015–2020.* NYU Stern Center for sustainable business. https://www.stern.nyu.edu/sites/default/files/assets/documents/NYU-RAM_ESG-Paper_2021%20Rev_0.pdf

Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2021). Does ESG certification add firm value? *Finance Research Letters, 39*, Article 101593. https://doi.org/10.1016/j.frl.2020.101593

Zhu, L., Luo, J., Dong, Q., Zhao, Y., Wang, Y., & Wang, Y. (2021). Green technology innovation efficiency of energy-intensive industries in China from the perspective of shared resources: Dynamic change and improvement path. *Technological Forecasting and Social Change, 170*, Article 120890. https://doi.org/10.1016/j.techfore.2021.120890