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Impact of environmental, social, governance, and corporate social responsibility factors on firm's marketing expenses and firm value: A panel study of US companies

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PUBLIC INTEREST STATEMENT

The study aims to explore and understand an evolving thought and debate around the relevance and impact of CSR/ESG engagement on various stakeholders. In this study, we have attempted to explore the impact of CSR/ESG engagement on the firms' marketing strategy and firm value. The topic is gaining traction among investors, rating agencies, policymakers, customers, and other stakeholders, equally. The research is designed to explore whether or not the customers are paying attention to the CSR/ESG engagements of the firm and whether such interest and consciousness among the customers have any impact on the marketing expenses of the firm. The results indicate that the firms' CSR/ESG engagement does, in fact, create a considerable consumer response and assists in developing a conscious and effective marketing strategy aligned to its broader CSR/ESG strategy. Similarly, the results of this study suggest that CSR/ESG engagement may result in cost-effective measures, sustainable and conscious supply chains, circular processes, and consequently, a higher value proposition among investors.

Abstract: During recent times of uncertainty, sustainable marketing and sustainable finance became hot research topics attracting both academics and practitioners. Although centering marketing efforts around the firm's Environmental, Social, and Governance (ESG) and Corporate Social Responsibility (CSR) policies allow for creating a superior image and increasing brand value, the incorporation of ESG/CSR activities might seem to be costly and have been claimed to not provide direct marketing benefits. This study aims to explore the impact of firms' ESG/CSR engagement on marketing expenses and firms' market value to provide a strategic rationale for firms to undertake ESG/CSR activities to position their companies distinctly in the marketplace accordingly. The study employs a panel regression to analyze the impact of ESG and CSR commitments on a firm's marketing expenses in a sample of S&P 500 firms in the United States. The results indicate that the firms with higher CSR engagement spend proportionately lesser on their marketing expenses and entertain a higher market value. The results also suggest that the firm's board size, board diversity, and social engagement considerably enhance the firm's market value. The results indicate that focusing on firms' environmental responsibility alone does not sufficiently contribute to enhancing the value of the firm, stakeholders are rather more concerned about the firm's societal engagement which must, therefore, be overtly communicated and reported.

Subjects: Corporate Finance; Corporate Governance; Corporate Social Responsibility; Marketing Management

Keywords: ESG engagement; CSR disclosure; marketing performance; sustainability; stakeholder Theory; sustainable marketing; sustainable finance

1. Introduction

In recent times, sustainable marketing and sustainable finance have emerged as hot research topics that have attracted considerable attention from both academics and practitioners. Investing in businesses and projects with conscious practices and sustainable supply chains is already on the rise (Broom, 2022; Hileli, 2021). Amid the growing consumer consciousness and evolving sustainable awareness, the incorporation of Environmental, Social, and Governance (ESG) and Corporate Social Responsibility (CSR) commitments into the core business strategies are becoming increasingly important. While engaging in sustainable projects and processes is gaining traction among corporates, the focus on centering marketing efforts around the firm's ESG and CSR policies allows for creating a superior image and increasing brand value. The firm disclosures do not necessarily reflect the rationale for ESG engagement due to the lack of a singular definition and a non-discernable nature of these activities in the financial statements. Firms have been rather forced due to the increasing pressure to conduct themselves in conscious and responsible ways rather than as a means to financial gain (Huang, 2021). United Nations Principles for Responsible Investment offers detailed guidelines for the integration of ESG engagement for investors to evaluate the performance of any company besides the usual financial metrics when making investment decisions. The Global Reporting Initiative (GRI) guidelines on the inclusion of Sustainability Reporting (IR) is also evolving along similar lines, aiming to address indicators linking business goals with sustainability (Sisaye, 2021). It is also believed that consistent guidelines on IR, may, improve communication of sustainability engagement and in the long term generate a better image for businesses, reduce cost externalities related to regulation, and result in better investor and stakeholder engagement. Responsible Investors and impact investors seek to evaluate the company beyond its financial indicators by focusing on the value chain, supply chain, responsible engagement, sustainability, and the general conduct of the businesses (Atan et al., 2018). While corporates have lately realized that "doing good" may not essentially be in incongruence with the successful business, there still exists a considerable difference in opinion with regard to the motivation for CSR/ESG engagement.

The general understanding and the frontiers of Corporate Social Responsibility (CSR) have remained disputed and have been constantly shifting since its inception. While the opinions concerning corporate social responsibilities span over a broad spectrum and have evolved over time, CSR has, in recent decades, generated a huge interest apart from the altruistic and ethical narrative, moving beyond its conventional frontiers. Though the conventional landscape of CSR has largely changed over time, CSR largely focuses on unstructured voluntary engagement and reporting of corporates with the society, ESG refers to the more structured and well-defined engagement of businesses towards the environment, social, and governance issues. While CSR has largely been examined from the standpoint of obligations of business towards society, ESG focuses on meaningful engagement with society by undertaking initiatives that aim at enhancing the relevance, efficiency, innovation, and sustainability of the businesses. Despite the expanding frontiers of CSR and a considerable overlap with ESG engagements of business with broader inclusion of environmental, social, and governance perspectives, CSR and ESG are still being examined by many researchers as two separate elements of the corporate engagement with society (Bofinger et al., 2022; He et al., 2022; Karwowski & Raulinajtys-Grzybek, 2021; Pollman, 2019).

The evolution and trajectory of corporate social responsibility have remained contested particularly in the light of the agency theory, often being referred to as self-serving opportunism, and there is a lack of general consensus as to what corporate social responsibilities entail and what remains the rationale for its pursuit. Agency view on CSR/ESG argues that CSR/ESG engagement is simply a manifestation of agency problems and may be counterproductive for the organizations' profitability, value, and investor interest (Bénabou & Tirole, 2010; H. Cheng et al., 2013; B. Cheng et al., 2014; Jensen, 2001; Krüger, 2015; Masulis & Reza, 2015). An alternative thought on CSR/ESG engagement asserts that conscious and well-managed CSR/ESG initiatives may, not just reflect agency problems or the costly-engagements, but a conscious engagement and undertaking of the projects and initiatives that enhance the firm's reputation, value, and performance, and decrease the firms financing costs and idiosyncratic risk (Albuquerque et al., 2019, 2019; Bushee & Noe, 2000; Chang et al., 2018; M. Cheng & Meng, 2022; D. D. Lee et al., 2009; Deng et al., 2013; Dhaliwal et al., 2011; Ferrell et al., 2016; EL Ghoul et al., 2011; Goss & Roberts, 2011; He et al., 2022; Karwowski & Raulinajtys-Grzybek, 2021). While the debates on CSR/ESG engagement continue to lie across often diametrically opposite loci, it has gained prominence in recent times and has now become rather mainstream and is not considered a niche practice anymore¹. As opposed to the traditional stakeholder (shareholder) theory, the neo-classical approach recognizes the integration of responsible business practices as an economic motivation for the managers to maximize the value of the firm as well as cater to the stakeholder's concerns (Jensen, 2001).

Although some studies argue that ESG/CSR commitments are not related to the firm's financial performance or even negatively related, by adding an unnecessary burden on operational expenses (Mikołajek-Gocejna, 2016), the vast majority of researchers confirm that ESG/CSR engagements are crucial in contributing to the firm's market value and its financial performance (Chouaibi et al., 2021; Gillan et al., 2021; Mikołajek-Gocejna, 2016). Even more, the McKinsey Quarterly Report shows that sustainable practices actually improve firms' financial performance through cost reduction due to effective deployment and efficiency of resources (Henisz et al., 2019). The emerging discourse around the shareholder versus stakeholders draws from the role of business in society and considers corporate citizenship and corporate responsibilities as the vital elements for the intersection to social contract theory (Hsieh, 2017; Scherer & Palazzo, 2007). Given the evolving landscape in responsible corporate engagement and neo-classical economic thought, CSR engagement has witnessed substantial growth in recent years. According to the Global Sustainable Investment Alliance's annual review, sustainable investments have increased by 34% in just two years.

From the consumer standpoint, the promotion of environmental (e.g., recyclable) and socially responsible (e.g., locally sourced and circular supply chains) products, practices (e.g., fair wages,

animal welfare), and brand values are also increasing due to the observed increase of modern customers consciousness and concerns toward businesses' credibility². Customers are willing to pay more for responsible products as reported by McKinsey research (Henisz et al., 2019) resulting in increasing the firm's net sales (Shen & Chang, 2008) and profit margin (Goering, 2010; Shen & Chang, 2008). Therefore, companies are taking direct and visible steps to communicate their CSR initiatives to various stakeholders, including consumers (Luo & Bhattacharya, 2006) to position themselves in alignment with the evolving consumer consciousness. For example, Apple has made it a goal to reduce carbon emissions and to partner with companies that share similar values and supply chains. Similarly, Google uses 50% less energy and 91% of total waste is diverted from landfills. IKEA manufactures products using sustainable materials and 91% of their waste is recycled or incinerated into energy.

The CSR/ESG engagement is also often argued to provide considerable marketing advantages to the firms, and may, in fact, help firms position their products better and save marketing costs. In the existing literature, scholars have agreed on the importance of centering marketing efforts around the firm's ESG and CSR policies to gain a competitive advantage (Kim et al., 2018), create a superior image, acquire and retain clients, and increase brand loyalty and value, especially during times of uncertainty (Hileli, 2021; Kukunuru & Singh, 2017). However, the adoption of ESG/CSR activities might seem to be costly and has often been claimed to not provide direct marketing benefits (Goering, 2010; Mikołajek-Gocejna, 2016). For instance, some researchers have reported a contradiction between customers' appreciation of sustainable products and their willingness to purchase such products (Henisz et al., 2019; Kapferer & Michaut, 2015). Moreover, Dekhili et al. (2019) and Achabou and Dekhili (2013) observed that sustainable products are, sometimes, not perceived with the superior image as expected. As stated by Gillan et al. (2021), "there still exist conflicting hypotheses and results that are not resolved, leading to continued questions and a need for more research."

Given the lack of consensus in the literature on the cost of conscious products and processes and the marketing efforts emphasizing the firm's ESG/CSR commitments, and its potential impact on the firm's profitability and market value (Galant & Cadez, 2017; Mikołajek-Gocejna, 2016), this paper aims to explore the impact of firms' ESG/CSR engagement on the marketing expenses/revenue ratio (indicating the need for sustainable marketing expenditure) as well as the firm's value (Tobin's Q) to provide a strategic rationale for firms to undertake ESG and CSR activities to position their company distinctly in the marketplace accordingly. We suggest that CSR/ESG engagement builds a good reputation for the firm leading to a reduction in its marketing expenditures, consequently increasing the sales of the firm and enhancing investor perception. In the existing literature, the empirical evidence on the proposed relationship is very scant. The study, therefore, offers an important contribution to the CSR/ESG literature with a finance/marketing context by supporting one of the existing "points of view" relating to the relationship between ESG commitments and firm performance. To our knowledge, this is the first study that investigates the effect of variables understudy on firms' performance from a marketing perspective.

The remainder of the article is organized as follows. We begin with a literature review on the topic under study in section 2, followed by the presentation of our proposed theoretical framework and hypotheses in section 3. The data, methods, and sample characteristics are presented in section 4 and the results and implications are presented in section 5.

2. Literature Review

The CSR/ESG engagement and the motivation for the firms to adopt responsible business practices continue to remain on diametric points of view with some consolidation over the last two decades. The discussions on CSR/ESG engagement largely revolve around the agency theory, shareholder/stakeholder theory, and the social contract theory (Albuquerque et al., 2019; Bénabou & Tirole, 2010; H. Cheng et al., 2013; B. Cheng et al., 2014; M. Cheng & Meng, 2022; He et al., 2022; Huang, 2021; Jensen, 2001; Karwowski & Raulinajtys-Grzybek, 2021; Krüger, 2015; Masulis & Reza, 2015).

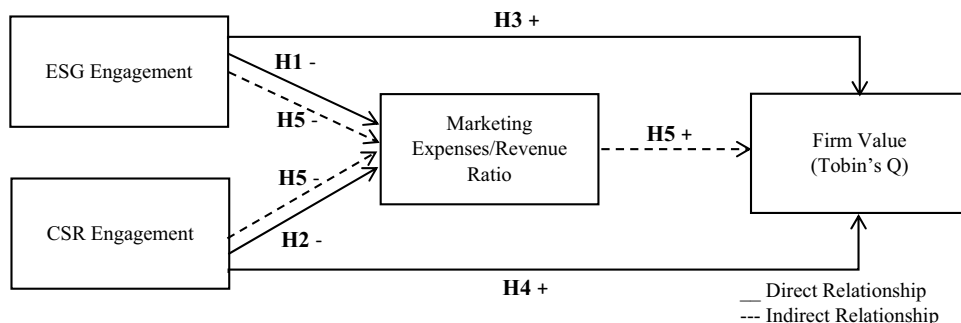
In the current paper, we aim to understand the impacts of ESG pillars and CSR activities on firms' value and marketing expenditure in the light of the Stakeholder Theory. In this section, we provide our proposed conceptual model (Figure 1) and hypotheses developed from the existing literature briefly presented below.

Although both ESG and CSR reflect the firm's engagement in responsible and conscious practices, in the existing literature, the researchers continue to study the implications of each concept independently (Bofinger et al., 2022; He et al., 2022; Karwowski & Raulinajtyś-Grzybek, 2021; Pollman, 2019). The concept of CSR in corporations was first studied by Bowen (1953) who emphasized the effect of corporations' actions on society. Bowen (1953) defined social responsibility as "the obligations of businessmen to pursue policies, make decisions, or follow lines of action which are desirable in terms of the objectives and values of our society". Later, Carroll (1979) highlighted that CSR is a multidimensional concept involving "economic, legal, ethical, and discretionary prospects that society has of organizations at a given point of time". The ESG concept to the firms' societal engagement was developed much later in 2004 and refers to the integration of environmental, social, and governance concerns into business models which makes ESG a more expansive terminology than CSR which indirectly involves governance issues in environmental and social considerations (Bofinger et al., 2022; Gillan et al., 2021; He et al., 2022; Pollman, 2019). Environmental criteria include the firm's energy use, waste, pollution, natural resource conservation, and treatment of animals that can help evaluate any environmental risks a firm might face and how such risks are managed. Social criteria refer to the firm's relationships with suppliers, and the local community, employees' health, and safety. Governance encompasses several issues like board size and diversity, CEO independence, corporate transparency, and ethical/legal practices (Investopedia.Com, 2022).

The current study is an attempt to explore the relationship between the firm's CSR/ESG engagement with its marketing expenses and the firm value. The relevant studies on this theme can be classified into multiple strands—CSR/ESG engagement, consumer response, and marketing strategy being the most unconflicting ones. Although Sun and Govind (2020) illustrate that a firm's marketing power may influence corporate social irresponsibility, there is a general consensus that CSR/ESG engagement enhances the brand image and receives a favorable consumer response, therefore, resulting in cost-effective and efficient marketing strategies and performance (Fan et al., 2021; Paolone et al., 2021; Sahut & Pasquini-Descomps, 2015; Suki et al., 2016; M. T. Lee et al., 2022), often referred to as "ESG advertising" effect. The link between CSR activities and marketing performance was studied by Rahman et al. (2017). The authors focused on one of the marketing elements—advertising by arguing that the advertising intensity positively moderates the impact of CSR on marketing performance which was fully supported. The study illustrates that customer awareness of CSR activities through advertising a product is greater. Kt (2012) on the other hand went further by investigating the two types of advertising. It was clearly identified that informative and persuasive advertising effects of CSR initiatives on corporate reputation and brand equity (p. 198).

An interesting bibliometric analysis of the literature on corporate social responsibility and marketing by Quezado et al. (2022) highlights that "Older studies, in this field, dealt with the

Figure 1. Proposed conceptual model—impact of ESG/CSR engagement on firms' marketing performance and market value.



topic in question with a financial focus, relating CSR to finance and performance. Recent studies have looked at CSR as an opportunity to create a relationship with the consumer, with research that assesses CSR's impact on marketing, consumer behavior, and brand management" (p. 16). They assert that CSR is related to several marketing variables like brand attitude, corporate reputation, brand credibility, customer satisfaction, and customer loyalty. The study represents a growing interest in CSR in the field of marketing under consumers' pressure for companies to adopt responsible behaviors. Along similar lines, Paolone et al. (2021) confirm that a company's marketing performance can be boosted by its scores in ESG pillars leading to higher revenues. Thus, the authors advise companies to combine the governance pillar, which demonstrates how the company operates its activities, with social and environmental pillars, which show how the company's activities affect the people and planet, to create superior customer value. Yet, no former studies have explicitly examined the impact of CSR/ESG engagement on marketing expenditure that directly relates to a company's financial measures and performance.

Research on the effect of ESG/CSR on companies' financial performance has also evolved over the years, yet the findings do not converge on the same point of view (Margolis et al., 2007; Mikołajek-Gocejna, 2016). The agency theory view of ESG/CSR engagements is often seen as a financial burden or self-serving motivation of managers, often at the cost of shareholders, and therefore, mostly discarded as a manifestation of agency problems within the firm (Bénabou & Tirole, 2010; H. Cheng et al., 2013; B. Cheng et al., 2014; Jensen, 2001; Krüger, 2015; Masulis & Reza, 2015). The research along this line of thought asserts that only firms with well-managed CSR/ESG policies may contribute to the financial performance of the firm (Masulis & Reza, 2015), while most engagements will prove to be an extra financial burden on the firm and a manifestation of agency problems (Bénabou & Tirole, 2010; B. Cheng et al., 2014) and opportunism (H. Cheng et al., 2013), often at the expense of shareholders (Jensen, 2001; Krüger, 2015). Given the divergent nature of the subject and diametric points of view, while some scholars demonstrate that expenditure on socially responsible activities will deteriorate firms' profitability (Baird et al., 2011; Peng & Yang, 2014), others report that spending on socially responsible activities leads to a lower idiosyncratic risk (Albuquerque et al., 2019; D. D. Lee et al., 2009; He et al., 2022; Karwowski & Raulinajtys-Grzybek, 2021), reduction in the firms' financing costs (Albuquerque et al., 2019; Dhaliwal et al., 2011; EL Ghouli et al., 2011; Goss & Roberts, 2011), positive market image (Bushee & Noe, 2000), higher profitability (Al-tuwajri et al., 2004; Burnett & Hansen, 2008; Chang et al., 2018; M. Cheng & Meng, 2022; Orlitzky et al., 2003; Wang et al., 2016), and higher firm value (Albuquerque et al., 2019; Deng et al., 2013; Ferrell et al., 2016). This alternate view on CSR/ESG engagement supports the view that the relationship between societal engagement and corporate performance usually follows a U-shaped path as firms with high expenditure on ESG activities tend to have lower profitability at the beginning which precipitates into a substantial contribution to the financial performance of the firm over time (Barnett & Salomon, 2012; Bowman & Haire, 1975).

Several theories can explain the potential contribution of ESG engagement to the firm's performance and value, notably, the neo-classical Stakeholder theory (Aboud & Diab, 2018; Yoon et al., 2018), competitive advantage (Bernardi & Stark, 2018; Y. Li et al., 2018), information (Y. Li et al., 2018; Yoon et al., 2018), and resource efficiency (Z. Li et al., 2020). According to the Stakeholder theory, organizations are obliged to meet the rights of a larger group of individuals who can affect or be affected by the achievement of the firm's objectives, rather than only the rights of the shareholders (Freeman, 1984). In the current literature, the Stakeholder theory advocates a positive relationship between CSR and Corporate Financial Performance (CFP; Galant & Cadez, 2017). Bernardi and Stark (2018) report that firms with considerable and meaningful ESG engagement may potentially enhance the firms' competitive position and subsequently result in higher value for shareholders. Yoon et al. (2018) found that ESG engagement, may, in long term, increase the operating efficiency of the firm and result in a better market reputation and a better market value. Similarly, B. Cheng et al. (2014) report that the integration of CSR in the organizational strategy may reduce agency cost and information asymmetry due to better stakeholder

engagement. They further argue that firms with superior CSR engagement and transparent disclosure of CSR face fewer financial constraints and lower financing costs. In a similar study, EL Ghoul et al. (2011) suggest that the financing costs are considerably lower in firms with meaningful CSR strategies, particularly due to enhanced stakeholder relationships and product development strategies. They also found that firms with socially responsible practices witness lower volatility and higher market valuation. Aboud and Diab (2018) assert that firms with an increased level of ESG engagement will improve their relationships with their stakeholders. They report that the firms with sound ESG engagement and responsible business practices would largely satisfy the relevant stakeholders and therefore, increase the firms' operating efficiency and financial performance. Y. Li et al. (2018) argue that firms with superior ESG engagement and practices will develop efficient supply chains and operating models, therefore, gaining a considerable competitive advantage, subsequently resulting in superior financial and operating performance. Albitar et al. (2020) report that firms' ESG disclosure and engagement results in a considerable increase in the value of the firm. Consistent with the stakeholder theory, Nguyen et al. (2022) demonstrate that ESG engagement enhances the firms' perception among the investors, subsequently, resulting in the higher market value of its assets and a higher Tobins' Q, besides higher profitability. In a similar study, Carnini Pulino et al. (2022) report that the firms' ESG disclosure is effective in instituting cost-effective strategies, having stable supply chains, and advancing operating efficiency. Aouadi and Marsat (2018) on the other hand, report that the firms' ESG engagement has a considerable positive impact on the market value of the firm only for the firms with higher market attention and located in countries with greater press freedom. Nonetheless, some studies have found no relationship between the two variables and suggested that socially responsible activities will not affect firms' profitability (McWilliams & SIEGEL, 2000; Sun et al., 2010). Atan et al. (2018) evaluated the impact of ESG engagement on the firm's performance in Malaysia and report that ESG engagement does not have any influence on the firms' value or profitability. A meta-analysis was conducted on the positive relation between CSR and CFP (Orlitzky et al., 2003; Wang et al., 2016). Albuquerque et al. (2019) assert that while the relationship between CSR/ESG engagement and a firm's profitability, risk, and value is not completely understood, it is evident that due to the growing consumer and investor consciousness, firms with sound CSR/ESG engagement observe lower volatility in their earnings, lower price and earnings elasticity, and a higher firm value.

In this paper, we attempt to further explore whether there is a considerable impact of firms' CSR/ESG engagement on marketing performance and firm performance. By CSR we refer to the firms' responsible practices integrated into their strategies and communicated with stakeholders, while ESG denotes firms' reported measures. We align with the most recent studies confirming a positive CSR-CFP (Lu et al., 2014; Orlitzky et al., 2003; Wang et al., 2016) and ESG-CFP (Alareeni & Hamdan, 2020; Carnini Pulino et al., 2022; Paolone et al., 2021; M. T. Lee et al., 2022) association using firm market value (Tobin's Q; Alareeni & Hamdan, 2020; Assaf et al., 2017; Carnini Pulino et al., 2022) as a performance measure. Specifically, we address the following research question:

RQ—Does increasing CSR/ESG engagement enhance firms' performance and value by reducing the need for high marketing expenditure?

Firms are recently becoming more active in engaging in ESG/CSR practices to meet consumers' increasing demands for sustainable products and services (Galant & Cadez, 2017). Such firms'/ brands' sustainable engagement has vastly increased recently (Deloitte, 2020). Firms that have a responsible image develop a good reputation that entices customers and positively relates to financial (e.g., higher sales growth and higher return on assets) and non-financial performance (e.g., brand image; Galant & Cadez, 2017). Such firms can more easily market their products and services (Barnett & Salomon, 2006), save costs and increase revenue from higher sales and market share (Weber, 2008). Therefore, our hypotheses are stated as below:

H1. ESG engagement reduces a firm's marketing expenses

H2. CSR engagement reduces a firm's marketing expenses

H3. ESG engagement increases a firm's value

H4. CSR engagement increases a firm's value

According to Lytho (2021), brand value is so broad to define and challenging to measure as it means different things to different people in different contexts. Yet, brand value is commonly measured through cost-based valuation (i.e., how much it costs to build a brand), Market-based valuation (i.e., prices, stock performance, etc.), income-based valuation (i.e., generated income, cash flow, cost savings, and future earnings), and revenue premium valuation (i.e., identity influenced brand purchases). Prior studies illustrate that firms can achieve positive outcomes and optimize sales revenues by emphasizing their responsibility to the environment, community, customers, suppliers, and employees, and by responding to government rules and regulations (Nyame-Asiamah & GHULAM, 2019; Waheed & YANG, 2018). According to Assaf et al. (2017), higher levels of CSR initiatives enhance consumers' satisfaction and attitude toward the firm and lead to higher returns on advertising (marketing) spending. This is justified by the improved firm's brand reputation due to its CSR practices that make it less costly for the firm to attract and retain customers (Assaf et al., 2017).

According to the above discussion and in line with the existing literature, we expect ESG/CSR-engaged firms to have a superior reputation and image that is anticipated to abridge the firm's need to spend high expenditures on marketing activities. As well, a firm's conscious and meaningful ESG engagement is expected to encourage cost-effective processes, strengthen supply chain relationships, build a better investor perception, increase market value on assets, and, therefore improve the firm's value. Thus, we propose:

H5. Firms that are engaged in ESG/CSR practices can improve brand value without the need to spend more on marketing expenses

3. Data description and methodology

The current study attempts to analyze the impact of CSR/ESG engagement on the firms' marketing performance and market value. To evaluate this relationship, a sample of 386 firms from the S&P 500 index was selected. In the selection of the firms for study, financial firms, public administration, and education services were excluded while the other firms were entirely selected based on the availability of CSR/ESG data. These firms were excluded due to the major differences in their financial reporting practices, financing structure, and their mode of operation. The data for the analysis was collected from Refinitiv Eikon for a period of the last 15 years (2007–2021). Some firms during this period had missing data for some variables, therefore, we ended up with an unbalanced panel data of 386 firms with 4840 observations for Model 1 (ESG/CSR and Marketing Expenses) and 4816 observations for Model 2 (ESG/CSR and Firm/Brand Value), described later in this section. The definitions of all the variables in both models are provided in Table 1 below. The data for both models has been winsorized at 1% and 99% to eliminate the outliers.

This paper employs a panel data regression model with the specifications of Pooled Ordinary Least Square (OLS), Fixed Effects, and Random Effects models. The use of panel data regression is expected to produce efficient estimates by allowing control for individual variables' heterogeneity, collinearity, and other robustness measures (Khaki & Akin, 2020). To estimate the relationship between the firm's ESG/CSR engagement and the marketing expenses of the firm, the below model (Model 1) is employed.

$$MEX_{i,t} = \alpha + \beta_1 CSR_{i,t} + \beta_2 ENV_{i,t} + \beta_3 SOC_{i,t} + \beta_4 BSIZE_{i,t} + \beta_5 BDIV_{i,t} + \beta_p FIRMCONTROL_{i,t} + \mu_{i,t}$$

Table 1. Variables definitions

Variable	Definition
FVALUE	Proxy for the value of the firm and is represented by its TOBIN's Q.
MEX	The Ratio of Marketing and Administrative Expenses to Total Revenues
CSR	Corporate Social Responsibility (CSR) Strategy Score reflects the company's practices to communicate that it integrates the economic, social, and environmental dimensions into its decision-making processes
ENV	The Environmental Pillar Score of a firm measures the company's impact on living and non-living natural systems, including the air, land, and water, as well as complete ecosystems.
SOC	Social Pillar Score measures the company's capacity to generate trust and loyalty with its workforce, customers, and society, through its use of best management practices
BSIZE	Size of the total number of board members at the end of a fiscal year
BDIV	Board diversity is measured as the percentage of the board members that have a cultural background different from the location of the corporate headquarters
Control Variables	
SIZE	The size of the firm is measured as the total assets of the firm.
LEV	The leverage of the firm is measured as the ratio of total debt over total assets.
LIQ	The liquidity of the firm is measured as the ratio of current assets to current liabilities
PROF	The profitability of the firm is measured as the ratio of Net Income to Total Sales

To evaluate the relationship between the ESG/CSR engagement, marketing expenses, and the firm value (Tobin's Q), the below model (Model 2) is employed.

$$FVALUE_{i,t} = \alpha + \beta_1 MEX_{i,t} + \beta_2 CSR_{i,t} + \beta_3 ENV_{i,t} + \beta_4 SOC_{i,t} + \beta_5 BSIZE_{i,t} + \beta_6 BDIV_{i,t} + \beta_p FIRMCONTROL_{i,t} + \mu_{i,t}$$

The summary statistics of all the variables employed in this study are presented in Table 2 below. The summary statistics indicate that the marketing expenses demonstrate a wide range across the firms ranging from almost 0 to 236.22; there is also a huge difference in the marketing expenses within the same firm over the years. Likewise, CSR, ENV, SOC, and GOV indicate a huge variation among the firms ranging from 0 to 99.86, 0 to 98.55, 0.26 to 97.99, and 0.45 to 99, respectively. As indicated in the table below, there are considerable differences between the firms compared to the deviations within the firm, therefore, suggesting the applicability of the fixed-effects panel regression model. The applicability of the suitable model is shown by appropriate tests in the results and analysis section.

4. Results and discussions

The current study contributes to the existing literature by investigating the effect of firms' CSR/ESG engagement on the overall firm's value from a marketing perspective in light of the stakeholder theory. This is one of the first researches, to our knowledge that test the effect of CSR and ESG engagement (tested separately) on the firm's need for marketing expenditures and then on the firm's value. The study employs classical panel data regression models to analyze the relationship between CSR engagement, ESG engagement, Marketing Expenses, and Firm Value as described in

Table 2. Summary statistics

Variable	M	SD	Min	Max	Observations
FVALUE	overall	2.251213	0.0252962	45.15067	N = 6157
	between		0.533917	17.50278	n = 441
	within		-10.45536	29.91358	T-bar = 13.9615
MEX	overall	3.056731	-0.0409311	236.2192	N = 5981
	between		-0.0135298	16.07967	n = 421
	within		-15.74418	220.3911	T-bar = 14.2067
CSR	overall	42.4093	0	99.86459	N = 5772
	between		0	98.26691	n = 441
	within		-43.77767	126.6592	T-bar = 13.0884
ENV	overall	44.54859	0	98.54581	N = 5772
	between		0	92.5162	n = 441
	within		-36.90004	108.5926	T-bar = 13.0884
SOC	overall	54.91313	0.2648305	97.993	N = 5772
	between		15.06458	94.93449	n = 441
	within		-11.02513	108.8677	T-bar = 13.0884
GOV	overall	55.68507	0.4497082	99.10746	N = 5772
	between		12.2815	90.78601	n = 441
	within		-1.01244	107.2119	T-bar = 13.0884
LIQ	overall	1.865589	1.35892	17.78686	N = 5863
	between		0.3160147	9.141307	n = 410
	within		-4.707687	10.51114	T-bar = 14.3
PROF	overall	-9.909981	1336.275	176.7901	N = 6439
	between		-7205.266	38.1475	n = 443
	within		-99.86903	7205.62	T-bar = 14.535

(Continued)

Table 2. (Continued)

Variable	M	SD	Min	Max	Observations
SIZE					
overall	23.19883	1.416058	15.01698	27.49604	N = 6421
between		1.307747	18.62993	26.91588	n = 443
within		0.5621398	18.72953	26.42742	T-bar = 14.4944
LEV					
overall	0.3004038	0.2416885	0	3.892046	N = 6386
between		0.2134609	0	3.115177	n = 443
within		0.111263	-0.8642439	1.704863	T-bar = 14.4153

Note: GOV is the Governance Pillar Score and includes Board Diversity and Board Size as its sub-components.

the model specifications presented above (Model 1 and Model 2). To check for the appropriateness of the relevant panel data model, we employed the Breusch Pagan Lagrangian Multiplier Test and Hausman Tests. Breusch Pagan—LM Test is used to test whether or not pooled model generates adequate results and is used to choose between the pooled OLS model and the Random Effects model. On the other hand, the Hausman Test, sometimes often referred to as the model misspecification test is used to choose between the fixed effects model and the random effects model. The results of the Breusch Pagan—LM Test and Hausman Test are provided in Table 3 below.

The model specification tests above indicate that the Fixed effects model is the appropriate model for the analysis. Therefore, while Table 4 and Table 5 report the results for all the classical models, the discussions will be based on the fixed effects model. The models reported in the model specification test in Table 3 above were further adjusted for possible heteroskedasticity by employing the Eicker-Huber-White standard errors for robustness and are reported under model specification 4 in each Table 4 and Table 5. Given that the fixed effects model was reported as the appropriate model, specification 4 reports the results of the Fixed effects model with robustness, and therefore, the discussion and conclusions will be based on the Fixed Effects Robust model.

As previously highlighted, this study is among the very few studies to test the impact of firms' ESG engagement and CSR engagement on marketing performance/expenditure (Model 1). Interestingly, the regression results from Table 4 (visualized in Figure 2) suggest that the marketing expenses of the firm are considerably affected by the firm's CSR engagement, firm size, leverage, and profitability, while ESG engagement of the firm has not been found to have any substantial impact on the firm's marketing expenses. The results from model specifications 2 and 4 (fixed effects model and robust fixed effects model, respectively) suggest that CSR engagement has a negative and statistically significant influence on the marketing expenses of the firm. This can be explained by the fact that an effective CSR strategy helps firms improve their brand image and reputation, and therefore, considerably reduce their marketing expenses and attract more customers (Assaf et al., 2017). In regards to the control variables, the firm size is found to be positively related to marketing expenses, suggesting that big firms have a broader marketing strategy, hence, spend more on marketing and branding (BDC.CA, 2022). The results also suggest that firms with higher leverage and higher profitability tend to have lesser marketing expenses. Although high leveraged firms are theoretically predicted to be more aggressive competitors. This may be due to the higher risk on borrowed funds and therefore, lesser flexibility to expand the marketing budget. Whereas highly profitable firms may have better and more effective strategies to attract and retain their customers and may consider decreasing their marketing budget as one of the ways to enhance their bottom line (BDC.CA, 2022).

We further analyze whether marketing budget, CSR engagement, and ESG engagement contribute to increasing the firm's value by employing Model 2 described in the methodology section above. The results presented in Table 5 (Figure 2) show that the firms' value is affected by marketing expenses (MEX), social engagement (SOC), Board Size (BSIZE), and Board Diversity (BDIV). Surprisingly, the investors do not consider CSR engagement as an important determinant of the firm's value and disregard the firm's CSR strategy while evaluating their investments, consistent with the findings of McWilliams and SIEGEL (2000) and Sun et al. (2010). Our results are also consistent with Bofinger et al. (2022) who report that ESG engagement considerably improves the market valuation of the firms and reduces the deviation of misvalued firms from their true value. They attribute the contribution of ESG engagement on firm value to the growing consciousness of sustainable products and sustainable investing. (He et al., 2022) argue that while ESG engagement may, in principle, reduce the firm's idiosyncratic risk by leading to a convergence of investor opinion, and therefore, a higher market efficiency, and better valuation. Among the ESG determinants, environmental engagement has not been found to be related to the firm's value, unlike what is established in the existing literature (Z. Li et al., 2020; Soyemi et al., 2021; Wassmer et al., 2014). This may be due to the fact that due to the expensive environmentally sustainable

processes and operations; investors may be led to discount the firms with expensive environmental engagements.

Similar to Alareeni and Hamdan (2020) social engagement and governance structure are positively associated with the value of the firm. This may be explained by the fact that the diversity and size of the board, in particular, are considered incredibly important determinants of a firm's effectiveness and sustainability. The impact of board size on firm values is rarely investigated in corporate governance models. Findings are in line with former studies that confirm a positive relationship between board diversity and firm value (Carter et al., 2003; Hassan & Marimuthu, 2016). Although several studies demonstrate a negative relationship between board size with firm value in Australia and India (Kumar & Singh, 2013; Nguyen & Faff, 2007), our results align with, Carnini Pulino et al. (2022), Nguyen et al. (2022), Huang (2021), and Albitar et al. (2020), and Lakatos (2020) who report a positive relationship between ESG engagement and the firm's value and performance. It is worth noting that board diversity increases with firm size and board size (Carter et al., 2003), bringing in greater expertise and control, which is expected to institute cost-effective, sustainable, and profitable measures and projects, therefore, increasing the value of the firm. The board diversity and size of the board are considered to expand the diversification of business by exploring projects with higher sustainability and impact for the society as well as for the investors, besides reducing corruption and agency costs (Bhagat & Bolton, 2019; Lien & Li, 2013). The larger, diverse, and independent boards have also been reported to enhance the transparency in reporting firms' environmental, social, and governance commitments and performance, while also considerably reducing the agency problems. The board's independence and diversity also seek to discourage opportunism, promote sustainable practices, enhance stakeholder engagement, enhance market reputation, and increase firms' value (Al Amosh & Khatib, 2022).

Besides, investors do not consider CSR engagement as an important determinant of the firm's value and disregard the firm's CSR strategy while evaluating their investments. The results reject H4 and align with minority studies that report that firm's CSR practices do not affect financial performance (McWilliams & SIEGEL, 2000; Sun et al., 2010). Then, it is not surprising to find the marketing expenses negatively affecting the firm's value as the investors may not prefer to invest in firms with broad and expensive marketing strategies, affecting the bottom line of the firm. Among the firm control variables, firms' size is negatively associated with the firm's value, while liquidity and leverage are positively associated with the firm's value. These results are consistent with Atan et al. (2018) and may be explained by the fact that as the firms grow in size, they reach a certain level of maturity when the potential for further growth becomes limited, thereby reducing investor attractiveness. Regarding liquidity and leverage, the investors prefer firms employing leverage in their financing structure to amplify returns for the shareholders (M.-C. Cheng &

Table 3. Model specification test

Model Specification Test	Selection Criteria	Chi-Square	p-value	Model Choice
Model 1				
Breusch Pagan LM Test	Pooled Vs Random	24,234.87	0.000	Random
Hausman Test	Random Vs Fixed	15.34	0.000	Fixed
Model 2				
Breusch Pagan LM Test	Pooled Vs Random	6394.03	0.000	Random
Hausman Test	Random Vs Fixed	268.14	0.000	Fixed

Table 4. Panel data regression model results—determinants of marketing expenses (Model 1)

Variables	1 Pooled Model	2 Fixed Model	3 Random Model	4 Fixed Robust Model
CSR	-0.000127*** (0.000)	-0.000119*** (0.000)	-0.000127*** (0.000)	-0.000119* (0.000)
ENV	0.00005 (0.00005)	0.00007 (0.00005)	0.00005 (0.00005)	0.00007 (0.00008)
SOC	0.00006 (0.00006)	0.00003 (0.00006)	0.00006 (0.00006)	0.00003 (0.00009)
BSIZE	-0.00019 (0.00043)	-0.00028 (0.00043)	-0.00019 (0.00043)	-0.00028 (0.00064)
BDIV	0.00000 (0.00008)	-0.00006 (0.00008)	0.00000 (0.00008)	-0.00006 (0.00011)
SIZE	0.00173 (0.00146)	0.00371** (0.00149)	0.00173 (0.00146)	0.00371 (0.00409)
LEV	-0.0400*** (0.00529)	-0.0401*** (0.00536)	-0.0400*** (0.00529)	-0.0401*** (0.0130)
LIQ	0.000284 (0.000768)	0.000301 (0.000771)	0.000284 (0.000768)	0.000301 (0.00184)
PROF	-0.00164*** (0.00003)	-0.00165*** (0.00003)	-0.00164*** (0.00003)	-0.00165*** (0.00010)
Constant	0.198*** (0.0327)	0.156*** (0.0329)	0.198*** (0.0327)	0.156 (0.0954)
Observations	4,840	4,840	4,840	4,840
R-squared		0.487		0.487
Number of Firms	386	386	386	386

Note: *** p < 0.01, ** p < 0.05, * p < 0.1

Tzeng, 2014), while liquidity is also considered an important determinant of a firm’s solvency by all stakeholders and exhibits a concave relationship with the firm’s value (Sola et al., 2010).

The results of this study are graphically summarized in Figure 2 below.

4.1. Conclusions and implications

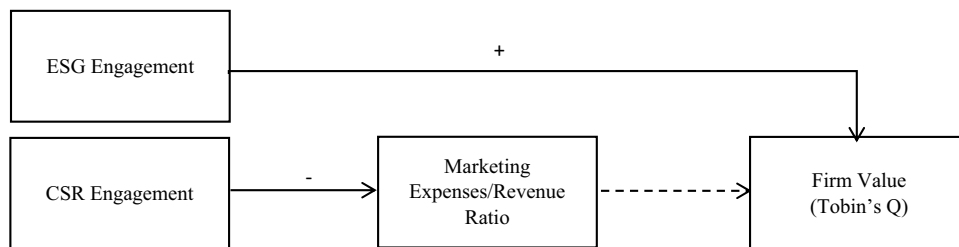
The current study contributes to the existing literature by investigating the effect of the firm’s ESG/ CSR engagement on the overall firm/brand’s value from a marketing perspective in the light of the stakeholder theory. Consistent with the existing literature on the theme, the results suggest that CSR/ESG engagement can be an effective tool for enhancing the marketing performance of the firm, primarily by reducing marketing costs. It is often argued and confirmed by the results of this study that the CSR/ESG engagement generates a favorable consumer response, thereby, creating synergies in the CSR efforts and the marketing strategies to enhance the effectiveness and impact of marketing strategies, often referred to as the “ESG advertising” effect. It is imperative that CSR/ ESG engagement in itself serves as a marketing tactic and often gets cascaded and formally integrated within the marketing strategy of the firm, resulting in reduced marketing expenditure and higher output to marketing efforts. It is also believed that the CSR/ESG engagement of the firm often leads to cost-effective strategies, sustainable supply chains, circular processes, and higher operating efficiency, consequently resulting in a higher value proposition for the firm. As opposed to the traditional shareholders’ value maximization proposition, the results of this study are

Table 5. Panel data regression model results—determinants of firm value (Model 2)

Variables	1 Pooled Model	2 Fixed Model	3 Random Model	4 Fixed Robust Model
MEX	0.574 (0.436)	-2.027*** (0.578)	0.574 (0.436)	-2.027* (1.123)
CSR	0.000807 (0.00133)	0.00138 (0.00135)	0.000807 (0.00133)	0.00138 (0.00182)
ENV	0.00120 (0.00182)	0.00206 (0.00186)	0.00120 (0.00182)	0.00206 (0.00348)
SOC	0.0133*** (0.00207)	0.0107*** (0.00212)	0.0133*** (0.00207)	0.0107*** (0.00327)
BSIZE	0.0355** (0.0162)	0.0577*** (0.0166)	0.0355** (0.0162)	0.0577** (0.0287)
BDIV	0.0361*** (0.00314)	0.0307*** (0.00325)	0.0361*** (0.00314)	0.0307*** (0.00520)
SIZE	-0.538*** (0.0487)	-0.315*** (0.0582)	-0.538*** (0.0487)	-0.315** (0.130)
LEV	1.876*** (0.184)	1.894*** (0.208)	1.876*** (0.184)	1.894*** (0.539)
LIQ	0.156*** (0.0279)	0.0800*** (0.0295)	0.156*** (0.0279)	0.0800 (0.0896)
PROF	0.00475*** (0.00118)	0.00130 (0.00136)	0.00475*** (0.00118)	0.00130 (0.00365)
Constant	12.20*** (1.086)	7.545*** (1.287)	12.20*** (1.086)	7.545** (3.330)
Observations	4,816	4,816	4,816	4,816
R-squared		0.090		0.090
Number of Firms	386	386	386	386

Note: *** p < 0.01, ** p < 0.05, * p < 0.1

Figure 2. Panel regression results of model 1 and model 2.



consistent with the neo-classical stakeholders' theory and signaling theory, suggesting that CSR/ ESG engagement and responsible business processes often lead to a favorable perception among the investors, higher profitability, a higher value for the firm's assets, and consequently, better market value for the firm.

Based on our findings, managers are advised to report the firms/brands' ESG engagement, primarily the firm's board size, board diversity, and social engagement, that are found to directly enhance the firm's market value. Marketers are also recommended to communicate firms/brands' CSR strategies and practices to their customers as this is found to boost brands' image and

reputation that consequently lead to reducing marketing costs. However, focusing only on firms' environmental responsibility is not found to be an added value, especially since some customers might not be keen on purchasing recycled or eco-friendly products depending on the type of purchase products. For instance, in the field of luxury products (usually highly-priced, customers seek products made of genuine material (e.g., leather, fur, silver, etc.) as they are considered more durable and superior in quality compared to environment-friendly alternatives. Therefore, a firm's environmental responsibility can be communicated as an element of an overall corporate social responsibility to enhance the firm's image. Results indicate that stakeholders are more concerned about the firm's societal engagement which enhances the firm's value. Thus, the firm's socially engaging practices must be overtly communicated and reported in a rather cost-effective and sustainable way to generate synergies and value propositions for the investors to look forward to.

4.2. Limitations

Though the study explores a very interesting area of investigating the nature of interactions between CSR and ESG engagement, marketing expenses, and firm value, it suffers from some limitations which can be explored by future researchers. The study is limited to the US firms extracted only from the S&P 500 index. An extended list of firms from multiple institutional and governance landscapes would be needed to validate and supplement the findings of this study. Since customers' perception of a product/brand value varies across industries, product types, and product categories, future research might break down the ESG engagements and focus on a particular area of the engagement in relevance to the industry/product to further expand the scope of this study. The study can also further be improved by studying the intermediating effect of various ESG engagements through marketing expenses on a firm's value or vice-versa. Furthermore, the influence of culture can be incorporated to the examined model to identify differences/similarities across cultures for more advanced and effective global marketing strategies.

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Correction

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Notes

1. [bcg.com](https://www.bcg.com), 2022, Sustainable Investing and Finance.
2. [mbcstrategic.com](https://www.mbcstrategic.com), 2020, Why SCG Investment Marketing Is More Important Than Ever.

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