



CSR performance and firm performance in the tourism, healthcare, and financial sectors: Do metrics and CSR committees matter?

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ABSTRACT

The purpose of this study is twofold. First, it tests the association between corporate social responsibility (CSR) performance and firm performance in the tourism, healthcare, and financial sectors. Second, it investigates whether CSR committees moderate this association in those sectors. To achieve these objectives, two proxies for CSR performance namely CSR performance and change in CSR performance are utilized. Moreover, firm performance is measured by three dimensions: market-based, accounting-based, and sales-based performance. The data for the three sectors were retrieved from the Thomson Reuters Eikon database from 2011 to 2018. While the financial sector generates firm value out of CSR performance per se, the tourism and healthcare sectors cannot. It is imperative to establish CSR committees among tourism firms to enhance firm value from CSR practices, since CSR performance and change in CSR performance per se do not generate value unless CSR performance interacts with the CSR committee. Moreover, the interaction of CSR committees with change in CSR performance does not generate value in either sector, which may imply that stockholders are satisfied with the current level of CSR engagement. Unlike the tourism sector, CSR committees cannot currently contribute to achieving higher market value in the healthcare and financial sectors. The conclusions concerning other performance metrics (profitability and sales) for the three sectors are outlined in the conclusion section. The study provides an opportunity for the three sectors to leverage CSR for firm performance improvement and presents refined guidelines that employ different firm performance measurements and CSR metrics.

1. Introduction

The concept of corporate social responsibility (CSR) has attracted increased attention to society's concerns about environmental degradation (Turker, 2009). Increased public attention to CSR has motivated businesses to communicate information regarding their environmental and social activities to their consumers (Hamrouni et al., 2019) in ways that are beyond their contractual obligations (Choi et al., 2010), technical and legal requirements (Carter, 2005), and economic interests (Turker, 2009). By integrating environmental and social issues into business operations (Bocquet et al., 2017), CSR has now become an integral part of corporate strategy (Choi et al., 2010).

The debate surrounding the relationship between CSR and firm financial performance has recently become a topic of great interest to

academia, business, and policymakers. The findings of previous studies are rather inconsistent. Based on an extensive review study by Friede et al. (2015), 90% of existing empirical studies detected a non-negative relationship (a majority of which was positive) between CSR and corporate financial performance. However, other notable studies have detected positive (Jo et al., 2015; Martinez-Conesa et al., 2017), negative (Makni et al., 2009), or non-significant connections (Van Beurden and Gössling, 2008; Makni et al., 2009) between CSR and firm performance. Moreover, Nollet et al. (2016) found a U-shaped association between CSR and accounting-based firm performance.

The inconsistencies among the existing findings result from the variety of CSR dimensions employed in the studies (Crifo et al., 2016), missing links that might explain the relation between CSR and performance (Bocquet et al., 2017), and the inappropriate approaches (Wang

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et al., 2016) sometimes employed in the investigation of CSR–firm performance associations. Crifo et al. (2016) argue that due to the multi-dimensionality of CSR, which includes social, environmental, and business behavior factors, using a single proxy leads to uncertainty of its relationship with other variables. Integrating the omitted links, moderating and mediating factors, including customer satisfaction, competitive advantage, firm reputation (Saeidi et al., 2015), and innovation (Martinez-Conesa et al., 2017) into analysis may interpret the firm performance and CSR relation more accurately (Bocquet et al., 2017). This study specifically focuses on the ability of CSR committees to moderate the association between CSR performance and firm financial performance.

This study fills the gaps of existing literature and contributes to studies of this topic in the following ways. Firstly, as discussed above, the inconsistency of current findings on CSR–firm performance relation has been attributed to the multi-dimensionality of CSR. Little is known about a variety of firm financial performance measures. For the purpose of this study, since different financial performance measures reflect different dimensions of firm financial performance (Gentry and Shen, 2010), the connection between firm financial performance and CSR is evaluated using three broad metrics of financial performance: namely market-based performance, accounting-based performance (three profitability proxies), and sales-based performance (two proxies). The market-based performance dimension determines the importance of CSR on firm value; while profitability proxies were used to reflect the return on the cost of involvement in CSR activities; and sales-based proxies measure the motivation of internal stakeholders and the visibility of firms' CSR initiatives to consumers. These financial performance metrics are commonly used indicators among all sectors which make our comparative investigation across three sectors meaningful. Moreover, unlike many prior studies that examined only CSR performance, this study measures change in CSR performance as well as CSR performance.

Second, although the impacts of corporate governance and CSR on firm performance have been investigated separately in the relevant literature, their joint effect on firm performance has yet to be thoroughly studied. Since corporate governance is a crucial pillar of sustained CSR orientation (Jamali et al., 2008), and because these two are interrelated factors (Karim et al., 2020), it is essential to examine their combined impact on different firm performance indicators.

Third, most of the existing studies in this field of research have investigated the CSR–firm performance relationship on a cross-sectoral basis. However, the findings of previous research have demonstrated that corporate social performance may be industry-dependent and sensitive to factors of industrial influence (Van Beurden and Gössling, 2008). Several prior studies focused on a comparative examination of various sectors on the link between CSR–firm performance relationship, but they did not pay attention to the homogeneity of the sectors included in the sample. They included a wide range of sectors in the sample such as energy, materials, industrials, consumer goods, healthcare, telecommunication, financials, retail, technology among others (Feng et al., 2017; Blasi et al., 2018). This sampling heterogeneity weakens the comparability of those past studies' findings across sectors. Hence, this study overcomes their limitation by narrowing the sample to the following three service sectors namely the health, tourism, and financial sectors. We follow some prior studies in designing a research sample peculiar to the service sector; previously, Tsang (1998),¹ incorporated banking and hospitality sectors in their study's sample, Bose and Gupta (2017) conducted a study on banking and healthcare sectors comparatively, and Sinthupundaja et al. (2019) conducted a service sector study including six sub-sectors such as commerce, healthcare, media, professional services, tourism and leisure, and transportation and logistics. Besides, these three sectors adopted in this study are classified among the environmentally less sensitive industries which constitutes a

common ground to take them into the research sample (Giannarakis, 2014). Furthermore, building its sample on twelve service sectors, Lee and Pati (2012) assert that the service sector lags behind the manufacturing sector in leveraging CSR to create competitive advantage, and the managers in the service sector considers firm performance and CSR as mutually exclusive. Hence, more research is needed and justified in establishing the connection between CSR and firm performance in the service sector. Because the product offerings of firms operating in service sectors are highly intangible, and consumers are not able to see or test these services before purchase, their stakeholders are likely to look for quality signals such as CSR programs (Kim et al., 2017). Indeed, Sinthupundaja et al. (2019) support this argument pointing out that CSR enhances consumers' perception of service quality leading to firm performance increase in the sector. In addition to the shared product intangibility features of the selected service sector sample, operational processes of all three sectors are labor-intensive; a company's CSR activities increase firm performance through positive employee work outcomes (Jeon et al., 2020). Due to such factors, CSR significantly impacts the financial performance and market value of firms in the service sector more than those in other industries (Casado-Díaz et al., 2014). However, despite similarities among these three sectors, considering their dissimilarities such as financial structure and exposed regulations, the health, financial, and tourism sectors are investigated separately and comparatively in the empirical part. Such an approach allows this study to comprehensively reveal the effects that CSR has on firm performance. Hence, we synthesize the results for each sector and suggest unique implications for each one highlighting the similarities and differences in the findings across these three sectors. Finally, to enhance the comparability of the three sectors, we use the performance metrics which are commonly used for all sectors including the three sectors used in the study.

The second section of this study provides a theoretical background of the topic, which is followed by the research methodology section. The fourth section reports the findings for the tourism, healthcare, and finance sectors comparatively. Then, the fifth section discusses the findings and concludes the study's results. Finally, the last section suggests implications for shareholders, firms, and CSR committees, sets limitations that this study experiences, and proposes future avenues of research.

2. Theoretical background

Although CSR has received considerable attention from researchers, the findings of research on the relationship between CSR and firm performance are still mixed. In the relevant published literature, this inconsistency has been attributed to the fact that CSR is difficult to conceptualize (Wood, 2010), and that there is currently no shared global understanding or uniform application of CSR across the globe (Ağan et al., 2016). An increase in demand for sustainable and eco-friendly products and services has led more firms to actively engage in CSR practices (Van Beurden and Gössling, 2008). Despite their variety across published research on the subject, all CSR definitions agree on the idea that companies seek to meet societies' expectations when generating their environmental management strategies (Gössling and Vocht, 2007; Saeidi et al., 2015). Baumgartner (2014) argued that CSR integrates environmental and social aspects into corporate activities. According to Freeman (1984), since a 'managerial view' is more complicated than a 'production view', from a social perspective, firms are expected to act responsibly toward government, investors, consumers, and to responsibly manage employees in ways that create sustained value for the company.

There are two dominant theoretical approaches within which the relationship between CSR and firm performance can be interpreted. From the shareholder view, which is also known as the classical view, Friedman (1970) argued that because executive managers are legal agents and employees of business owners, they are only responsible for

¹ They included the food and beverage sector as well.

maximizing shareholder wealth. Focusing more on CSR instead of maximizing profit leads to a deficiency of market mechanisms and a failure to achieve optimal resource allocation. Confirming the shareholder view, *Orlitzky (2015)* claimed that although CSR can be beneficial to firms in some cases, it undermines the foundations of the free market, liberty, and property rights and does not benefit firms in the long or short run. The second dominant theoretical approach runs contrary to the shareholder view. According to *Freeman (1984)*, meeting the needs of stakeholders improves a company's reputation in a way that positively impacts its performance. According to the stakeholder theory by Freeman, shareholders are considered one of the multiple stakeholders, including external and internal constituents (*Ruf et al., 2001*). Since firms' shareholder value can be reduced when met with adverse confrontations from stakeholders, incurring some negative social costs is unavoidable for firms (*Ruf et al., 2001*). A stakeholder-oriented firm also maximizes shareholder profit while generating value for stakeholder groups (*Mishra & Suar, 2010*).

By reviewing the findings of over 2000 empirical studies, *Friede et al. (2015)* evidenced that ESG (environmental, social, governance) criteria and corporate financial performance are positively related across various regions and approaches; this positive association has remained stable since the mid-1990s. Increased CSR leads to improved financial performance (*Rodriguez-Fernandez, 2016; Crifo et al., 2016*), and firms' initiatives that support sustainability are profitable (*Kuzey and Uyar, 2017*). *Crifo et al. (2016)* argued that even though relevant literature has provided mixed findings, over the past three decades, studies have tended to expose the positive relationship between green practices, human resources, customer and supplier dimensions, and firm performance. A favorable CSR position of firms toward primary stakeholder groups creates satisfaction among stakeholders who, in turn, bring cost advantage and efficiency gains to companies (*Mishra & Suar, 2010*). Particularly, in a competitive business environment, an improved reputation has a significant impact on a firm's economic value (*Hamrouni et al., 2019*).

Although the positive link between CSR and firm performance has been evidenced over time, there are other aspects of this debate. *Ruf et al. (2001)* argued that enhancements in the social performance of firms are paid back in the short-run and have continuing positive financial effects. Authors also state that consumers are aware of corporate actions regarding social responsibility, and by improving social responsibility, firms can achieve a competitive advantage even in a short period of one year. On the contrary, according to *Nollet et al. (2016)*, an increase in CSR is not profitable in the short term. Initially, its impact on firm profitability is negative, while the relationship between CSR and performance in terms of profitability only becomes positive after CSR investment surpasses a critical point. Firms that adopt an assertive CSR strategy gain a positive effect, whereas firms that adopt responsive CSR behaviors experience disadvantageous consequences. Firms that do not clearly identify their stakeholders, formalize their CSR practices, and are lack an asserted economic objective of CSR involvement experience the negative impact of CSR activities on the introduction of innovation and overall corporate performance (*Bocquet et al., 2017*).

Furthermore, *Choi et al. (2010)* found that CSR and financial performance are only positively related when firms prioritize specific stakeholder groups and exhibit socially responsible behavior toward prioritized stakeholders. Separate sub-components of ESG may also have different associations with firm performance. Only governance has a significant positive relation to corporate financial performance, whereas social and environmental components are not significantly related (*Nollet et al., 2016*). Analogously, different performance proxies contribute to contradictory findings of CSR–firm performance association.

The following sub-sections review the literature concerning (1) three types of firm performance indicators, namely market-based performance (Tobin's Q), accounting-based performance (profitability), and sales-based performance (employee and customer-induced), and (2) the role

that CSR committees have in enhancing CSR performance and firm performance. We do not formally establish the hypotheses, to evade the complexity that arises from involving three sectors in the study, along with the usage of two proxies for CSR performance, three firm performance metrics, and a moderator.

2.1. Market-based performance (Tobin's Q)

Tobin's Q measures a firm's market valuation relative to its assets-in-place (*Rodgers et al., 2013*). It shows the market evaluation of a future cash flow and its associated risk, which identifies investors' expectations of future prospects and assesses the overall growth potential of the firm (*Cahan et al., 2016*). Tobin's Q also represents the expected long-term profitability aspect of firm performance and reflects the public's trust in the company (*Marti et al., 2015*). *Pekovic and Vogt (2020)* argued that the use of Tobin's Q as a forward-looking firm performance measure is necessary, as the impacts of CSR are more likely to be seen in the medium-term or long-term future. Positive (*Marti et al., 2015*), negative (*Buallay et al., 2020; Crisóstomo et al., 2011*), and non-significant relationships (*Rodriguez-Fernandez, 2016; Velte, 2017; Karim et al., 2020*), between CSR and Tobin's Q, have been concluded in prior studies. The significant positive impact of CSR on Tobin's Q indicates that better corporate social performance can reveal the market expectations of increases in future cash flow and potential sustainability-related opportunities of the firm (*Cahan et al., 2016*). It has been evidenced that CSR significantly affects a firm's financial performance, especially when corporate performance is evaluated through market-based measures (*Casado-Díaz et al., 2014; Pérez and López-Gutiérrez, 2020*). The market-based measures reflect investors' expectations of future prospects and assess the growth potential of the firm (*Cahan et al., 2016*). Investors consider CSR to be an important factor in their investment decisions and they appreciate the numerous benefits that CSR brings to firms (*Flammer, 2013*). In this respect, CSR investment may help firms sustain their growth potential by balancing the interests of shareholders and stakeholders.

Conversely, the negative association between CSR and Tobin's Q demonstrates that when corporate social activities do not adequately address aspects of CSR according to market expectations, such as eco-friendly management and liability remediation for firms in the mining sector, cause investors to anticipate future decreases in cash flow, thus decreasing Tobin's Q ratio. (*Crisóstomo et al., 2011*). This evidences the adverse impact of social involvement on firm value.

Moreover, the importance of corporate social engagement and its effect on firm value has been found to vary across the globe depending on the national, institutional, and economic environment of each nation (*Marti et al., 2015*). In some economies, firms do not consider the disclosure of social, non-financial information to be a mechanism for increasing market values, and investors are unwilling to pay a premium for CSR (*Buallay et al., 2020*). In addition to transnational differences, *Sudana et al. (2019)* studied the differences between CSR and Tobin's Q across industries and CSR dimensions. They found that firms' environmentally-related social activities affect Tobin's Q positively in the mining sector, but negatively in the production of consumer goods. Similarly, employee health and occupational safety dimensions are positively related to Tobin's Q in the agriculture, transportation, infrastructure, and finance sectors, although the relationship is negative in the trade and service industries. The employee-related CSR dimension positively relates to Tobin's Q, whereas the environmental dimension has no significant association (*Cavaco and Crifo, 2014*).

Studies that found a non-significant positive link between CSR and Tobin's Q (*Velte, 2017; Karim et al., 2020*) argue that the economic advantage of CSR is seen in the medium- or long-term future, and its benefit on firm value is likely to be manifested in the long-term (*Cavaco and Crifo, 2014*). Increased engagement of CSR activities throughout more firms is likely to affect investors' perceptions of the intangible values they associate with firms, along with future profitability, and

long-term expected growth opportunities (Pekovic and Vogt, 2020). The top ten percent of firms with the highest CSR in a given industry have comparatively higher market valuations and a significant relationship connection between social performance and Tobin's Q; no significant relationships were found among firms with lower CSR scores (Awaysheh et al., 2020). The non-significant relationship between CSR and Tobin's Q suggests several explanations. First, outcomes generated by the social investment vary by stakeholder groups, and existing CSR measurement dimensions suggest that strategic CSR investment targeting is needed (Rodgers et al., 2013). Also, the effectiveness of CSR investment is dependent on the moderating effects of corporate governance (Pekovic and Vogt, 2020), innovations (Martinez-Conesa et al., 2017), and reputation and customer satisfaction (Saeidi et al., 2015). Therefore, the relationship between CSR scores and Tobin's Q of the current year may not always be straightforward.

2.2. Accounting-based performance (profitability)

One stream of literature claims that the positive relationship between corporate social performance and financial performance is not industry or region-specific, but rather a worldwide phenomenon (Jo et al., 2015). CSR has a significant positive relationship to the accounting-based financial performance of firms (Marti et al., 2015). Such findings are supported by the fact that a firm's favorable social behavior satisfies primary stakeholders which provides cost advantages and efficiency gains, thereby increasing the return on assets (Mishra & Suar, 2010). Compared to Tobin's Q, accounting-based performance proxies measure short-term firm performance (Pekovic and Vogt, 2020), which has a significant positive relationship with CSR. In particular, the governance dimension of ESG has a stronger impact on performance than other components (Velte, 2017). The firms that report high sustainability ratings exhibit stronger financial performances in terms of ROA (return on assets) and ROE (return on equity) (Rodriguez-Fernandez, 2016; Wu and Shen, 2013; Lenssen et al., 2011). Furthermore, CSR has a short-term and continuing impact on profitability measures (Ruf et al., 2001). By implementing CSR initiatives, companies seek to generate other managerial benefits such as high employee motivation, attracting and retaining key people in the industry, and gaining increased customer awareness (El Ghoul, Guedhami and Kim, 2017). For instance, in the financial sector, firms with higher CSR ratings show comparatively better profitability and low non-performing loans (Wu and Shen, 2013).

Another stream of literature argues that the relation between aggregate CSR measurements and firm performance is non-significant or positively significant only when firms prioritize specific stakeholder groups and operate within economies that have strong levels of institutional development. Choi et al. (2010) evidenced that CSR has a positive impact on ROA and ROE only when it is measured with a stakeholder-weighted index, which includes weighted values for prioritized specific groups of stakeholders. In contrary cases, the relationship is not significant. Certain sub-components of CSR, including human resources, customer, and employee dimensions, are positively associated with profitability, while other dimensions and aggregate CSR are not (Crifo et al., 2016). CSR activities related to product improvements and community relate to short-term firm performance in terms of accounting-based measures, whereas the impact of employee-related activities is observed in the long run (Theodoulidis et al., 2017).

The findings that evidence the significant negative association between CSR and firm performance argue that firms are faced with compromising between financial performance and social responsibility (Karim et al., 2020). Buallay et al. (2020) found that the connection between CSR and ROA is not statistically significant, and one-year lagged corporate social expenses are negatively associated with ROA, which may mean that managers incur agency costs to gain greater reputation and/or personal benefits at the expense of the firm's profit (Karim et al., 2020). Another study that examined the negative

association between CSR and firm profitability argues that the effects of CSR are not immediate results. While corporate social expenses negatively affect profitability at the beginning of a new CSR initiative, those expenses eventually reverse, and profitability is achieved after a certain point of CSR investment is crossed (Nollet et al., 2016).

CSR practices are taken from advanced economies with strongly developed regulative, governance, and business environments (Kabir and Thai, 2017). In these countries, corporate social activities are more visible, which facilitates the positive relationship between CSR and firm profitability (Kabir and Thai, 2017). The absence of CSR's explanatory power over firm profitability in terms of ROA (Crisóstomo et al., 2011) is explained by the fact that dynamically changing societal perceptions have caused continuous adaptation within the CSR field, which makes the direction and the significance of the CSR and firm performance relationship unclear (Van Beurden and Gössling, 2008). Therefore, in economies with a comparatively weak institutional environment, corporate social engagement may be less observable, and CSR might negatively or insignificantly impact firm profitability.

2.3. Sales-based performance (employee and customer-induced)

Engagement in CSR activities shows how firms behave to meet the expectations of their stakeholders (Chen et al., 2019), including customers, suppliers, and employees. According to Famiyeh (2017), companies experience higher operational performance and receive long-term benefits if they introduce internal CSR programs such as better working conditions and standards for employees, retention of qualified personnel, attracting socially conscious investors, and retaining a repeat customer base. Yoon and Chung (2018) argued that although the impact of external CSR dimensions on short-term operational performance may be insignificant, CSR programs that target internal stakeholders, particularly managers, employees, and executives, enhance employee's levels of loyalty and productivity. Authors have also argued that the human resource dimensions of CSR lead to increased operational efficiency by improving employee productivity in the short run.

Socially responsible activities such as transaction minimizations for stakeholders, efficient wage systems, valuing employee feedback, staff motivation, and responses to consumer concerns positively affect the rate of products sold per employee by offsetting the CSR-related costs and making the firm more sustainable among its competitors (Becchetti and Trovato, 2011). Ruf et al. (2001) attributed the positive relationship between CSR and sales growth to the fact that consumers are aware of and support socially responsible behaviors, and by improving corporate social performance, firms can reach a competitive advantage even in the short-term interval.

Rodgers et al. (2013) claimed that returns on CSR investments vary according to different dimensions and stakeholder groups. Strategic investment in CSR-oriented management has a positive impact on the overall firm performance (Nollet et al., 2016). Contrary to the above evidence, according to Cui et al. (2015), there is a negative relation between CSR and efficiency performance in terms of sales growth. In developing economies with weak institutions and low household income levels, consumers are relatively price-sensitive and do not value products that have higher price points because of CSR-associated expenses. Authors also argued that although the resources and visibility of large firms enable their involvement in beneficial CSR activities, most private firms fail to benefit from CSR initiatives, including environment-friendly investments and employee welfare programs, due to their social expenses (Cui et al., 2015). Firms with strong CSR commitments may not be able to offer low enough prices to attract customers.

2.4. The CSR committee

According to Jamali et al. (2008), if firms fail to have a solid pillar of corporate governance, they cannot generate a stronger CSR orientation.

Therefore, it is essential to create necessary governance infrastructure systems like effective strategic planning and control systems. Corporate governance mechanisms, including appropriate committee settings and board independence, positively affect corporate social disclosure and performance levels (Khan et al., 2013). To benefit the firm's shareholders and stakeholders, the strength of corporate governance practices emerges from the strategic guidance demonstrated by the board of directors (Jamali et al., 2008). In designing an optimal corporate governance structure, firms are recommended to conduct an accurate cost-benefit analysis, since employing certain governance mechanisms can be costly and is not always effective (Oh et al., 2018).

It has been strongly recommended that by delegating specific tasks to specialized small groups of board members with field-targeted experiences, the formation of board sub-committees enhances the functioning of corporate governance mechanisms (Jiraporn et al., 2019). Functions of the CSR committee complement the functions of the audit committee; the CSR committee aims to enhance firm performance by aligning corporate objectives and achieving better communication with internal and external stakeholders, while the audit committee evaluates corporate growth opportunities from an accounting standpoint according to financial risk and accountability (Peters et al., 2019).

The role of the CSR committee in the CSR–firm performance context is not consistent. According to Rodrigue et al. (2013), the function of CSR committees is more symbolic than operational since they generally lack decision-making power and are not involved in the implementation of CSR activities. Instead, the role of a CSR committee is limited to recommendation-making. However, more recent studies have evidenced their important impact on corporate performance. Due to its strong link to CSR, the CSR committee, among other board responsibilities, determines the board's effectiveness in promoting the stakeholder perspective (Cucari et al., 2018). From the stakeholders' point of view, the CSR committee's appointment to work on business activities is more likely to display the firm's relative legitimacy within society (Mallin and Michelin, 2011). The presence of CSR committees indicates the way of sustainability encouragement (Fuente et al., 2017) and the effort to improve stakeholder-oriented management of firms by implementing specialized governing mechanisms (Hussain et al., 2018).

In the context of the relationship between CSR and firm performance, the positive influence of the CSR committee is achieved through actions that propose corporate sustainability improvement (García-Sánchez et al., 2019a). The CSR committee's effectiveness depends on whether committee members can identify the actions needed to increase the firm's visibility and position, to monitor its behavior, reliability, and the quality of communicated information regarding the firms' environmental and social commitments (García-Sánchez et al., 2019b). Moreover, the creation of a CSR committee may be effective, only if a firm presents sustainable behavior and aims to produce a better social performance in the medium to long term (Peters et al., 2019).

In line with the reviewed literature, we propose the following two research questions and seek to answer them through the empirical analysis:

R1: In the tourism, healthcare, and finance sectors, do ESG score and change in ESG score affect a firm's financial performance based on three dimensions: market-based performance (Tobin's Q), accounting-based performance (profitability), and sales-based performance (employee and customer-induced)?

R2: In the tourism, healthcare, and finance sectors, do CSR committees moderate the link between ESG score and change in ESG score and a firm's financial performance, according to the three dimensions market-based performance (Tobin's Q), accounting-based performance (profitability), and sales-based performance (employee and customer-induced)?

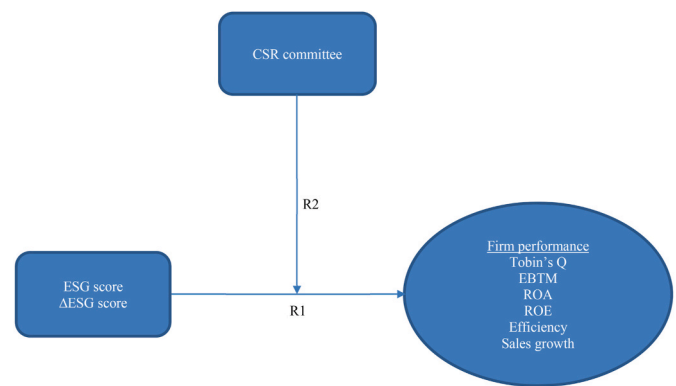


Fig. 1. The figure depicts the theoretical background of the study. The left construct depicts ESG score and change in ESG score, the right construct shows firm performance proxies, and the upper construct demonstrates the moderator (please the definitions of the variables in the “Variables” section).

2.5. Research methodology

This study includes univariate and multivariate analyses to test the proposed relationships. After the data screening process, descriptive statistics, a bivariate non-parametric correlation analysis using Spearman's coefficient of correlations, and a panel data analysis with a fixed-effects estimator are performed.

2.5.1. Variables

The study utilizes four sets of variables: firm performance, CSR performance, CSR committees, and control variables. Firm performance is proxied by Tobin's Q, Earnings-Before-Tax Margin (EBTM), Return on Assets (ROA), Return on Equity (ROE), Efficiency, and Sales Growth (Sgrowth) to capture different facets of firm performance (Ruf et al., 2001; Uyar et al., 2020). The reason behind the selection of these financial performance metrics is that they are commonly used indicators among all sectors which makes our comparative investigation across three sectors meaningful. While Tobin's Q reflects the growth opportunities of a firm, EBTM, ROA, and ROE reflect the profit-generating ability of a firm according to sales, available assets, and shareholder investment, respectively. Tobin's Q is a firm value proxy commonly used throughout existing literature that is calculated by the market value of equity plus book value of debt scaled by total assets (Uyar et al., 2020). EBTM, ROA, and ROE are calculated by dividing earnings before tax by total revenues, total assets, and total equity, respectively (Ruf et al., 2001; Uyar et al., 2020). Furthermore, efficiency is calculated by dividing total revenues by total assets (Rashid, 2015), and Sgrowth depicts the percentage change in revenues in the current period (t) relative to the previous period (t-1) (Ruf et al., 2001).

The second set of variables are two indicators of CSR performance: ESG score (ESGs) and ESG score change (ΔESGs).² The ESG scores were developed by Refinitiv (2021a) to objectively and openly assess a firm's relative ESG performance. The scores consider ten main CSR categories including CSR strategy, human rights, product responsibility, resource use, and innovation (including a total of 186 detailed metrics), among others. These ten scores are then combined into social, environmental, and governance pillar scores, which are finally aggregated into a single ESG score based on self-reported public information (Refinitiv, 2021a). The ESG scoring approach adopts a percentile ranking methodology among the existing companies in the considered group. The methodology is based on the following factors: number of companies to be scored, number of companies with a worse score, and number of companies with

² Please see the following section for a detailed description of the Thomson Reuters Eikon database.

the same score in the group. The score calculated will be always between 0 and 100 indicating the relative ESG performance of a firm within the group (Refinitiv, 2021a). The changes in ESG scores were calculated by the authors. ESG score change depicts the percentage change in ESG score in the current period (t) relative to the previous period (t-1). Although ESG score is a commonly used CSR performance indicator (Cheng et al., 2014; Uyar et al., 2020), ESG score change is a rarely adopted indicator (Cheong et al., 2017) which has different implications than raw ESG score. While raw ESG score indicates the current situation, ESG score change reflects the progress of CSR engagement.

As a moderator, the third set of variables assesses whether or not a firm has a CSR committee (CSRcom), which is a binary variable taking 1 if a CSR committee exists and 0 otherwise (Mallin and Michelon, 2011; Rodrigue et al., 2013). Hence, the study tests whether CSR committees can be a catalyst for translating CSR performance into firm performance. The fourth set of variables are control variables, including board-related, ownership structure, and financial variables, as specified in Table 1. Other board-related control variables are board size (Bsize), board gender diversity (Bdivers), board independence (Bindep), and CEO duality (CEOdual) (Fernández-Gago et al., 2016; Uyar et al., 2020). While Bsize is proxied by the number of directors on the board, Bdivers and Bindep are measured by the percentages of female and independent directors on boards, respectively. CEOdual is a dichotomous variable that takes 1 if the board is chaired by the CEO and 0 otherwise (Uyar et al., 2020). Highlighted board structure variables are likely to affect both CSR performance and financial performance.

Furthermore, the ownership structure is controlled by the free float percentage (FF) proxied by the percentage of shares traded on the stock exchange (Kuzey and Uyar, 2017). The extent of shares traded could be a predictor of both CSR performance, as the higher level of FF shows the ownership dispersion. Finally, firm size (Fsize), as proxied by the natural logarithm of total assets, and Leverage, as proxied by total liabilities to total assets, are controlled (Crisóstomo et al., 2011; Fernández-Gago

et al., 2016). These two control variables are incorporated because larger firms have more resources to deploy for CSR, and more leveraged firms may have a greater tendency to practice CSR initiatives to appease creditors. Firm size and leverage also have implications on firm financial performance. The descriptions of all variables are provided in Table 1 below.

2.5.2. Sample and data

The initial sample includes 940 (Tourism), 425 (Healthcare providers & services), and 8685 (Financials) firm-year records between 2011 and 2018 retrieved from the Thomson Reuters Eikon (Eikon thereafter) database for the three sectors. The Eikon database is one of the most inclusive databases that provides company fundamentals equivalent to 99% of the global market scale. Its scope extends to over 120 countries with nearly 55,000 active corporations, and its existence dates back to the 1980s (Refinitiv, 2021b). The Eikon database also includes ESG data for close to 10,000 companies. ESG data coverage reaches as high as 80% of the global market cap and contains a data archive of more than 70 countries that dates back to 2002 (Refinitiv, 2021c). Accordingly, the sample of the study included firms where both the fundamentals and the ESG data are available in the Eikon database. The sector definitions were adopted from the Thomson Reuters Business Classification (TRBC, i.e. the Refinitiv Business Classification). The TRBC consists of a five-level hierarchical framework that includes ten economic sectors, 28 business sectors, 54 industry groups, 136 industries, and 837 activities (Refinitiv, 2021d). The financial and healthcare sectors are among the ten economic sectors and the tourism sector is among the 54 industry groups catalogs in the Eikon database. The tourism sector is comprised of hotels, motels, restaurants, bars, cruise lines, casinos, gaming, leisure, and recreation corporations. The healthcare sector in the database spans healthcare providers and services, managed healthcare firms, pharmaceuticals, biotechnology and medical research, advanced medical equipment and technology, medical equipment, and suppliers and distribution companies. To dedicate the sample to healthcare services only, we formed the sample from “healthcare providers & services” (hereafter healthcare) only and ran the analyses accordingly. The financial sector includes banking, consumer lending, corporate finance, investment banking, and brokerage, investment management and funding, financial and commodity markets, financial technology, insurance and brokers, life and health insurance, real estate, and residential and commercial real estate investment trust firms, among others (Refinitiv, 2021d).

Although some prior studies treat the financial sector differently and omit it from their samples, presuming that it may be subject to different CSR regulations, or that its CSR behavior might be different than other sectors or industrial firms (Hamrouni et al., 2019; Rezaee et al., 2020), finance is included within the sample of this study. This is because the sample of this study consists of three service sectors that are all employee-intensive and provide intangible services to the clients. Hence, because they are labor-intensive sectors, their common ground is to initiate employee-induced and client-focused CSR practices. Moreover, they cannot bundle their CSR practices with their products, but CSR can be embedded into their service delivery processes. In this context, the three service sectors of tourism, healthcare, and finance that satisfy these two conditions are included in this study's sample to explore differences and/or similarities regarding ESG scores. By doing so, this study aims to fill the present gap in existing literature between the excessive investigation of industrial firms and the rare examination of service firms. Nevertheless, because there may be variations even among these three service sectors and considering their different sample sizes, this study runs the empirical models for each sector separately. The difference among the sample size of these three sectors is related to the availability of the ESG data for firms in each sector from the Eikon database.

The data screening process is a crucial step required before further analysis. The sample is undertaken for data preprocessing by

Table 1
Description of the variables.

Variables	Definitions
<i>Dependent variables (Firm performance):</i>	
Tobin's Q	Firm Value: Market value of equity plus debt divided by total assets
EBTM (%)	Earnings-Before-Tax Margin; Earnings before tax divided by total revenues
ROA (%)	Return on Assets; Earnings before tax divided by total assets
ROE (%)	Return on Equity; Earnings before tax divided by total equity
Efficiency (%)	Assets Turnover: Revenues divided by total assets
Sgrowth (%)	Sales Growth; Sales growth in the current year relative to the previous year
<i>CSR performance variables:</i>	
ESGs	CSR Performance; ESG score ranging between 0 and 100
ΔESGs	CSR Performance Change; ESG score change
<i>Moderator:</i>	
CSRcom	CSR Committee; CSR committee; if exists 1, otherwise 0
<i>Control variables:</i>	
Bsize	Board Size; Total number of directors on board
Bdivers	Board Gender Diversity; The percentage of female directors on board
Bindep	Board Independence; The percentage of independent directors on board
FF	Free float percentage: The percentage of shares traded on the stock exchange
Fsize	Firm Size; Natural logarithm of total assets
Leverage	Leverage: Total liabilities divided by total assets
CEOdual	CEO Duality: 1 if the same person is chairman and CEO, 0 otherwise

The data was retrieved from the Thomson Reuters Eikon database.

incorporating the missing data analysis, detection of outliers, winsorization, and multiple imputations. Initial screening of the data indicated that EBTM, ROA, ROE, Efficiency, Sgrowth, ESGs, Δ ESGs, Bsize, Bdivers, Bindep, FF, Fsize, and Leverage had extreme values with high variability around mean values. The given variables are subject to the winsorization. The indicated variables are winsorized in lower and the top tails at one percent by replacing the extreme values in both ends with their winsorized counterparts. After the winsorization step, the distribution of the variables indicated that a heavy skew in distribution had been reduced. Furthermore, the data set was also subject to multivariate outlier detection. After using the MCD (Minimum Covariance Determinant) estimator that robustified the Mahalanobis distance (Verardi and Dehon, 2010), 9 extreme firm-year records were removed from the sample. The final sample for the analysis consisted of 937 firm-year records in tourism, 425 in healthcare, and 8679 in finance sectors.

In the following step, missing data and multiple imputation analyses were performed. The variables ESGs, CSRcom, and CEOdual had no missing values. Only the variables with less than 12% missing values were selected for imputation. Therefore, Tobin's Q (12%), ROA (0.27%), ROE (0.29%), Bsize (0.11%), Bdivers (1.11%), Bindep (0.15%), FF (0.62%), Fsize (0.24%), and Leverage (0.27%), with the indicated missing values in percentage, were selected for the multiple imputation analysis. The missing values were analyzed by determining the pattern of the missing data and estimating the means, standard deviations, covariance, and correlations for missing values using Expectation-Maximization (EM) methodology. Little's MCAR test was performed to determine if the imputation was a necessary step. The results of the EM analysis performed using Little's (1988) Chi-Square statistics to test if the values were missing completely at random (MCAR) (H_0 : The data are missing completely at random) indicated that the data were not missing completely at random (Little's MCAR Chi-Square Test: 1466.28; p -value: 0.001). Therefore, it was not safe to delete the records with missing values list-wise or to impute the missing values individually. For this, multiple imputation analysis was employed. Finally, the Markov chain Monte Carlo (MCMC) multiple imputation method was performed, using linear regression as the model type for scale variables, to generate possible missing values, thus creating multiple complete data sets. The authors agreed not to impute the variables with more than 20% missing values such as EBTM, Efficiency, and Sgrowth. Finally, Δ ESGs was not imputed since it indicates a one-year lag in the ESG variable. In further analysis, the values of Δ ESGs for 2011 are missing due to the lagged calculation of ESGs.

2.5.3. Empirical methodology

The structure of this sample is presented in a firm-year longitudinal format while there is also a time-variant association between independent test variables and the dependent variables. As the most appropriate tool of analysis, regression analysis was used for the panel data, which can reduce the risk of multicollinearity and estimation bias (Baltagi, 2001). Initially, the F-test, the Breusch and Pagan Lagrangian Multiplier (LM) test, and Hausman's test are performed for each individual proposed model to determine the most appropriate method of regression analysis. First, F-test results indicated that Fixed-Effects Panel Regression analysis should be used instead of ordinary pooled-Ordinary Least Squares (OLS) regression analysis. Second, the LM test indicated that a panel data analysis with random-effects was the most appropriate, compared to the standard OLS regression analysis. Finally, Hausman's test (Hausman, 1978) revealed that panel data analysis with fixed-effects is the most appropriate analysis approach compared to the random-effects panel data regression analysis. The baseline analysis results are, therefore, based on the panel data analysis with fixed-effects.

The proposed research models are formulated using the given functional relationship in Eq (1).

$$y_{it} = \alpha + \beta X_{it} + \vartheta_i + \epsilon_{it} \quad \text{Eq (1)}$$

In this proposed model, the " y_{it} " represents the dependent variables:

Tobin's Q, EBTM, ROA, ROE, Efficiency, and Sgrowth. The independent variable term " X_{it} " represents the independent test as well as the control variables where the independent test variables are ESGs, Δ ESGs, CSRcom, ESGs*CSRcom, and Δ ESGs*CSRcom, and the control variables are Bsize, Bdivers, Bindep, CEOdual, FF, Fsize, Leverage, and ROA. The variable ROA is used interchangeably as the dependent variable and a control variable in the proposed models. The index " i " shows the firm as the panel variable, and the index " t " shows the year as the time variable. In addition, the term in the model " $\vartheta_i + \epsilon_{it}$ " is the error term, " ϑ_i " is the firm-specific error term, and " ϵ_{it} " is the usual error term. The proposed models were run with robust standard errors to eliminate the heteroskedasticity in the idiosyncratic error term, " ϵ_{it} " (Wooldridge, 2013).

Employing the fixed-effects panel analysis removes the risk of omitted variable bias by estimating the amount of changes within firms during the studied years (Wooldridge, 2010). Fixed-Effects Regression analysis using the year as a dummy variable can eliminate the risk of omitted variable bias.

2.6. Findings

2.6.1. Descriptive statistics

The summary of statistics for each variable is presented in three panels. The tourism, healthcare, and financial sectors are presented separately (Table 2). The results show that while the tourism sector has the highest mean value (1.91) of Tobin's Q, the financial sector has the lowest mean value (0.81.) While the finance has the highest mean value among the three sectors (38.95%) for EBTM, the tourism sector has the lowest value (12.39%) While tourism has the highest mean value (8.89%) of ROA, and the finance sector has the lowest mean value (3.62%) Moreover, while tourism has the largest mean value (16.33) of ROE, and finance sector has the smallest value (13.30). Efficiency has the highest value of 83.97% for healthcare while it has the lowest score of 21.53% for the finance sector. Moreover, Sgrowth has the highest mean value of 13.54% for the financial sector while it has the lowest score of 8.78% for healthcare. However, ESGs are very close to each other between the three sectors: 49.46 for tourism, 50.03 for finance, and 51.13 for healthcare. Likewise, Δ ESGs have close values among the three sectors with 5.46% for tourism, 5.47% for healthcare, and 4.49% for finance. The descriptive statistics of control variables can be tracked in Table 2.

Furthermore, Fig. 2 shows the evolution of ESGs during the period of study. It is observable that the tourism sector had a lower ESG mean value than healthcare and finance until 2015 but it surpasses the other two sectors in 2016 and 2017. Overall, the rising mean values of the three sectors' ESGs after 2015 except tourism's decline in 2018 are illustrated on the corresponding graphs. Fig. 3 shows the trend of change in ESGs over time for the three sectors. There are two noteworthy trends on the chart: one is the close trend between the three sectors during the study period, and the second is the increase in Δ ESGs rates until 2016, followed by a decline in the past two years. This may demonstrate that the respective sectors engaged with CSR investment intensively until 2016 and then tended to stabilize.

2.6.2. Correlation analysis

In order to measure the bivariate association between each pair of the variables of interest, Spearman's Rank Correlation analysis is performed since some of the variables are categorical variables. The results of the correlation analysis are shown in Table 3 under three panels for each of the three individual sectors.

In the tourism-specific sample, the results showed that ESGs have a significant negative association with EBTM ($r_s = -8.5\%$, p -value $< .05$) and Sgrowth ($r_s = -14.6\%$, p -value $< .05$), while Δ ESGs have no significant bivariate relationship with any of the dependent variables. The correlation analysis of the healthcare sector indicated that ESGs have a significant positive bivariate relationship with ROA ($r_s = 9.8\%$, p -value $< .05$) and ROE ($r_s = 24.2\%$, p -value $< .05$) and have a significant

Table 2
Descriptive statistics.

Panel A: Tourism (N = 937)					
Variable	Obs	Mean	Std. Dev.	Min	Max
Tobin's Q	937	1.91	1.68	0.00	15.26
EBTM	893	12.39	33.29	-204.37	139.04
ROA	937	8.89	10.04	-62.88	35.45
ROE	937	16.33	40.85	-152.83	122.46
Efficiency	893	82.73	57.87	0.24	214.74
Sgrowth	728	9.87	45.95	-100.00	686.36
ESGs	937	49.46	17.16	12.65	92.17
ΔESGs	765	5.46	14.66	-25.05	61.44
Bsize	937	9.18	2.74	1.00	26.00
Bdivers	937	16.07	12.31	0.00	57.14
Bindep	937	73.69	16.13	0.00	100.00
FF	937	74.32	23.24	4.06	100.00
Fsize	937	21.70	1.41	17.66	24.48
Leverage	937	60.22	24.55	5.55	112.42
CSRcom	937	0.46	0.50	0.00	1.00
CEOdual	937	0.45	0.50	0.00	1.00

Panel B: Healthcare (N = 425)					
Variable	Obs	Mean	Std. Dev.	Min	Max
Tobin's Q	425	1.58	1.00	0.15	7.45
EBTM	375	12.81	26.10	-59.85	139.04
ROA	425	6.76	7.42	-26.52	35.45
ROE	425	14.38	29.85	-152.83	122.46
Efficiency	375	83.97	54.53	0.12	214.74
Sgrowth	299	8.78	18.70	-100.00	93.09
ESGs	425	51.13	16.64	17.61	93.26
ΔESGs	341	5.47	13.39	-25.05	61.44
Bsize	425	9.34	2.73	3.00	22.00
Bdivers	425	17.91	11.57	0.00	60.00
Bindep	425	80.03	12.41	40.00	100.00
FF	425	83.01	20.17	1.39	100.00
Fsize	425	21.96	1.62	18.37	26.00
Leverage	425	59.21	20.70	3.48	112.42
CSRcom	425	0.32	0.47	0.00	1.00
CEOdual	425	0.34	0.47	0.00	1.00

Panel C: Finance (N = 8679)					
Variable	Obs	Mean	Std. Dev.	Min	Max
Tobin's Q	8679	0.81	2.68	0.00	230.48
EBTM	4546	38.95	49.81	-204.37	139.04
ROA	8679	3.62	6.24	-63.98	35.45
ROE	8679	13.30	18.79	-152.83	122.46
Efficiency	4553	21.53	27.99	0.00	214.74
Sgrowth	3658	13.54	71.64	-100.00	686.36
ESGs	8679	50.03	17.94	11.82	95.84
ΔESGs	7065	4.49	14.64	-25.05	61.44
Bsize	8679	10.50	3.85	1.00	38.00
Bdivers	8679	15.49	12.38	0.00	71.43
Bindep	8679	77.29	18.00	0.00	100.00
FF	8679	77.61	25.00	0.10	100.00
Fsize	8679	23.44	2.00	13.56	29.02
Leverage	8679	70.39	25.10	3.48	112.42
CSRcom	8679	0.39	0.49	0.00	1.00
CEOdual	8679	0.31	0.46	0.00	1.00

negative relationship with Tobin's Q ($r_s = -16.9\%$, $p\text{-value} < .05$) and Sgrowth ($r_s = -13.2\%$, $p\text{-value} < .05$), and no significant relationship with EBTM and Efficiency. Also, ΔESGs only have a significant negative relationship with Efficiency ($r_s = -13.5\%$, $p\text{-value} < .05$) but no significant bivariate association with the rest of the dependent variables at 5% significance level.

With respect to the financial sector, the correlation analysis revealed that ESGs have a significant positive bivariate correlation with EBTM ($r_s = 7.3\%$, $p\text{-value} < .05$), ROE ($r_s = 6.0\%$, $p\text{-value} < .05$), and have a negative significant correlation with Tobin's Q ($r_s = -12.9\%$, $p\text{-value} < .05$), ROA ($r_s = -7.0\%$, $p\text{-value} < .05$), and Efficiency ($r_s = -7.8\%$, $p\text{-value} < .05$). Furthermore, ΔESGs have a significant positive bivariate correlation with Tobin's Q ($r_s = 3.2\%$, $p\text{-value} < .05$), ROA ($r_s = 3.0\%$, $p\text{-value} < .05$), and ROE ($r_s = 2.8\%$, $p\text{-value} < .05$) while there are no

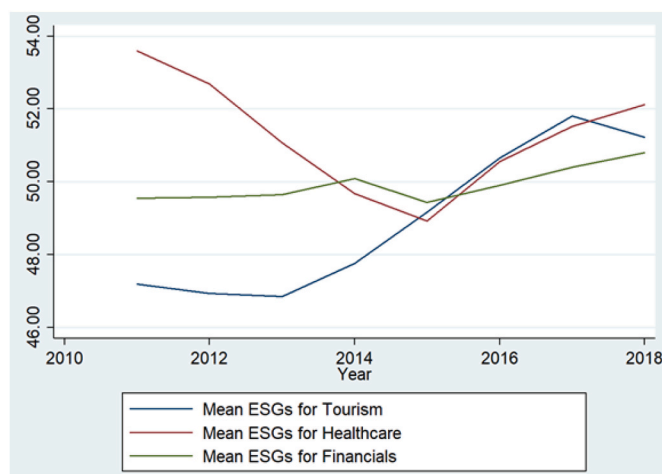


Fig. 2. Mean ESGs between 2011 and 2018 for Tourism, Healthcare, and Financial sectors.

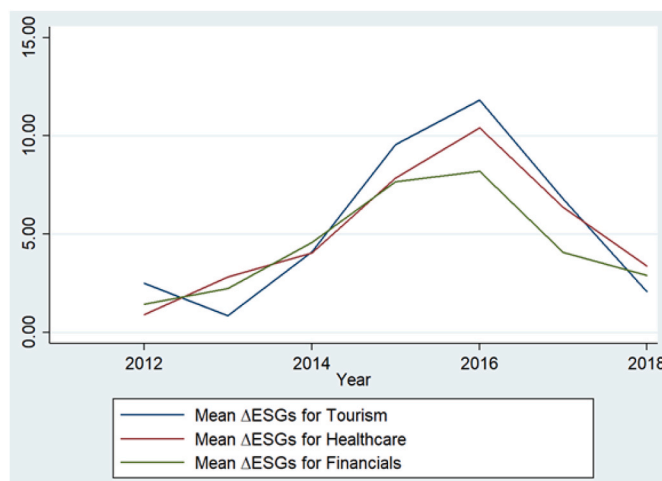


Fig. 3. Mean ΔESGs between 2012 and 2018 for Tourism, Healthcare, and Financial sectors.

significant correlations with EBTM or Efficiency.

The multicollinearity issue is addressed by evaluating the VIFs (Variance Inflation Factors). Each proposed model is subject to multicollinearity analysis. The results of the VIFs range between 1.10 and 2.76, which are relatively lower than the cut-off value of 10, must be reached for the existence of multicollinearity to occur (Hair et al., 2019).

2.6.3. Empirical results

The results of the aforementioned models for the baseline analysis are presented in Table 4 through 9. In each table, the dependent variable of interest is shown in the tourism, healthcare, and financial sectors.

In Table 4, the association of the test, as well as the control variables with Tobin's Q, is shown. The results showed that ESGs have a significant positive association with Tobin's Q in the financial sector ($p < .05$) and have a weak significant negative association with it in the tourism sector ($p < .10$), while it does not have any significant association in the healthcare sector. CSRcom has a significant negative relationship with Tobin's Q in the tourism sector ($p < .01$). The interaction variable ESGs*CSRcom has a significant positive association with Tobin's Q in the tourism sector ($p < .01$). The following variables ΔESGs and ΔESGs*CSRcom do not have a significant association with Tobin's Q in any sample.

Regarding the dependent variable EBTM, the association between

Table 3
Spearman's correlation coefficients.

Panel A: Tourism																	
Variables	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	
1	Tobin's Q	1															
2	EBTM	0.3824*	1														
3	ROA	0.7033*	0.6482*	1													
4	ROE	0.3815*	0.3528*	0.5918*	1												
5	Efficiency	0.3954*	-0.2688*	0.4571*	0.3055*	1											
6	Sgrowth	0.1497*	0.1063*	0.1269*	0.1197*	-0.0118	1										
7	ESGs	-0.0083	-0.0852*	-0.0289	0.0169	0.0568	-0.1456*	1									
8	ΔESGs	-0.0176	0.0543	0.0121	0.0187	-0.0454	-0.0053	0.0704	1								
9	Bsize	0.0269	-0.0528	-0.0104	0.0469	0.0373	-0.0842*	0.3610*	-0.0376	1							
10	Bdivers	0.0432	-0.0891*	0.0262	0.0416	0.1927*	-0.0266	0.3733*	-0.0251	0.1350*	1						
11	Bindep	-0.0444	-0.1333*	-0.0504	-0.0103	0.1161*	-0.0396	0.2595*	0.0428	0.2318*	0.2152*	1					
12	FF	0.0566	-0.0485	0.0488	0.0123	0.1608*	0.0744*	0.1638*	-0.0206	0.0013	0.3003*	0.3100*	1				
13	Fsize	-0.2177*	-0.0359	-0.3031*	-0.0729*	-0.3902*	-0.0287	0.4194*	-0.0223	0.4237*	0.0217	0.1271*	0.0148	1			
14	Leverage	-0.0658*	-0.2262*	-0.1476*	0.0152	0.0713*	0.0446	0.1849*	-0.0344	0.1993*	0.2864*	0.2392*	0.1777*	0.2283*	1		
15	CSRcom	-0.0396	-0.0577	-0.0724*	-0.0013	-0.0581	-0.1280*	0.6995*	-0.0012	0.3495*	0.1734*	0.0995*	0.0623	0.3020*	0.0884*	1	
16	CEOdual	0.1115*	0.0156	-0.0313	-0.0179	-0.0247	0.0275	-0.0139	-0.0423	0.0931*	-0.1260*	0.1402*	0.0126	0.1934*	0.0594	-0.0287	1

Panel B: Healthcare																	
Variables	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	
1	Tobin's Q	1															
2	EBTM	0.2556*	1														
3	ROA	0.4592*	0.7373*	1													
4	ROE	0.1551*	0.5526*	0.6670*	1												
5	Efficiency	0.1897*	-0.2839*	0.3019*	0.2122*	1											
6	Sgrowth	0.0611	-0.0884	-0.0392	-0.0542	0.1086	1										
7	ESGs	-0.1688*	0.0467	0.0983*	0.2418*	0.0522	-0.1321*	1									
8	ΔESGs	0.0348	0.0725	0.018	-0.0362	-0.1347*	-0.0332	0.0732	1								
9	Bsize	0.0191	-0.0013	0.1599*	0.1126*	0.1952*	0.0362	0.2698*	-0.0181	1							
10	Bdivers	-0.021	0.1328*	0.0061	0.0219	-0.1039*	-0.0776	0.2907*	0.0688	0.1084*	1						
11	Bindep	-0.2404*	0.0627	0.1428*	0.1439*	0.0673	0.0943	0.2898*	-0.0359	0.2124*	0.0493	1					
12	FF	-0.2041*	-0.2054*	0.0186	0.1097*	0.2646*	-0.0354	0.3610*	-0.1075*	0.0646	0.2180*	0.1909*	1				
13	Fsize	-0.4324*	-0.082	-0.0277	0.0878	0.0883	0.0392	0.6129*	-0.0517	0.3996*	0.0536	0.3512*	0.3104*	1			
14	Leverage	-0.3725*	-0.2236*	-0.2655*	0.1290*	0.0284	0.0197	0.2689*	-0.0407	0.1040*	0.0547	0.1661*	0.1960*	0.4811*	1		
15	CSRcom	0.1364*	0.0389	0.1779*	0.1689*	0.0313	-0.0954	0.4990*	0.0104	0.3555*	0.2219*	0.0407	0.094	0.3092*	0.1877*	1	
16	CEOdual	-0.1252*	-0.1930*	-0.0187	-0.0415	0.3093*	0.0683	-0.0681	-0.0751	-0.063	-0.1903*	0.0505	0.1245*	0.1732*	0.1043*	-0.1255*	1

Panel C: Finance																	
Variables	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	
1	Tobin's Q	1															
2	EBTM	-0.0332*	1														
3	ROA	0.5180*	0.6169*	1													
4	ROE	0.0419*	0.3847*	0.5760*	1												
5	Efficiency	0.2913*	-0.4309*	0.3145*	0.3116*	1											
6	Sgrowth	0.0838*	0.0165	0.1213*	0.1678*	0.1411*	1										
7	ESGs	-0.1294*	0.0727*	-0.0700*	0.0595*	-0.0781*	-0.0272	1									
8	ΔESGs	0.0322*	0.0275	0.0304*	0.0278*	0.0012	0.024	0.1377*	1								
9	Bsize	-0.4377*	-0.0877*	-0.2664*	0.0748*	-0.0226	0.0099	0.2017*	-0.0243*	1							
10	Bdivers	-0.0106	0.0879*	0.0063	0.0712*	-0.0094	-0.0327*	0.3345*	0.0237*	0.0857*	1						
11	Bindep	-0.0456*	0.0546*	-0.0477*	-0.0266*	-0.0785*	-0.0375*	0.1443*	0.0278*	0.0328*	0.2181*	1					
12	FF	0.0915*	-0.0498*	-0.0823*	-0.1406*	-0.0933*	0.0276	0.1548*	-0.0066	-0.0434*	0.2188*	0.2143*	1				
13	Fsize	-0.6253*	-0.0349*	-0.4525*	0.0646*	-0.2358*	0.0723*	0.4068*	0.0079	0.5451*	0.0773*	0.0615*	-0.0091	1			
14	Leverage	-0.6555*	-0.4052*	-0.6080*	0.1364*	0.0703*	0.0865*	0.1600*	-0.0162	0.4384*	0.0448*	0.0332*	-0.0353*	0.7100*	1		
15	CSRcom	-0.1723*	0.0789*	-0.0645*	0.0815*	-0.0599*	-0.0500*	0.6234*	-0.0071	0.2611*	0.1567*	0.0156	0.0049	0.3437*	0.1691*	1	
16	CEOdual	0.0477*	-0.1685*	0.0108	0.0213*	0.1447*	0.0590*	-0.0873*	-0.0178	0.0519*	-0.0077	-0.0003	0.1103*	0.0168	0.021	-0.0990*	1

*p < .05.

Table 4
Panel data regression analysis with fixed-effects (dependent variable: Tobin's Q).

Independent variables	(2)	(3)	(4)
	Tourism	Healthcare	Finance
ESGs	-0.012* (-1.92)	-0.0048 (-0.95)	0.0035** (2.19)
ΔESGs	0.0014 (0.57)	0.0017 (0.75)	-0.00031 (-0.43)
CSRcom	-1.15*** (-3.06)	0.071 (0.21)	-0.059 (-0.57)
ESGs*CSRcom	0.020*** (2.96)	-0.0018 (-0.34)	0.0012 (0.66)
ΔESGs*CSRcom	0.00061 (0.17)	0.0016 (0.44)	-0.00023 (-0.20)
Bsize	0.011 (0.50)	-0.017 (-0.65)	-0.0067 (-1.23)
Bdivers	-0.0014 (-0.29)	0.0020 (0.49)	-0.0023 (-1.59)
Bindep	-0.0029 (-0.60)	-0.0051 (-1.49)	-0.00054 (-0.46)
CEOdual	-0.063 (-0.43)	-0.17* (-1.76)	0.014 (0.40)
FF	0.0027 (0.61)	0.010** (2.36)	-0.0016 (-1.33)
Fsize	-0.89*** (-9.54)	-0.24** (-2.22)	-0.80*** (-22.84)
Leverage	0.011*** (3.62)	-0.0043 (-0.98)	0.0027 (1.62)
ROA	0.040*** (10.64)	0.018*** (3.38)	-0.022*** (-9.98)
Constant	20.7*** (9.81)	6.90*** (3.06)	19.6*** (24.78)
<i>Firm-Year Effect</i>	Yes	Yes	Yes
<i>N</i>	765	341	7065
<i>R</i> ²	0.37	0.18	0.12
<i>F-stat.</i>	18.35***	2.76**	39.88***

t statistics in parentheses; *p < .10, **p < .05, ***p < .01.

EBTM and the independent variables in each sample is shown in Table 5. While ESGs are weakly significant negative in the financial sector (p < .10), the coefficients of ΔESGs are not significant in any sample. Furthermore, the interaction variable ΔESGs*CSRcom is significant positive in the financial sector (p < .05), but it is not significant in the tourism and healthcare sectors. The results indicated no significant coefficients of CSRcom and ESGs*CSRcom in any sample.

In Table 6, the association between ROA and the independent variables is shown. According to the results of our analysis, CSRcom has a significant negative association with ROA in the tourism sector (p < .01), while the interaction variable ESGs*CSRcom only has a significant positive association with ROA in the tourism sector (p < .05). Finally, the variables of ESGs, ΔESGs, and ΔESGs*CSRcom have no significant association with ROA in any sector.

In Table 7, the associations between the independent variables and ROE as the dependent variable are presented for each sample. The results revealed that the coefficients of ESGs, ΔESGs, CSRcom, ESGs*CSRcom, and ΔESGs*CSRcom are not significant in any sample.

Table 8 shows the results of the relationships between the independent variables and Efficiency. According to the results obtained, ESGs has a weak significant positive relationship with Efficiency in the healthcare sector (p < .10). In addition, the coefficients of ΔESGs, CSRcom, ESGs*CSRcom, and ΔESGs*CSRcom are not significant in any of the sample.

Finally, Table 9 presents the relationship between the independent variables and the dependent variable of Sgrowth. The coefficient of ΔESGs is significant positive in the financial sector (p < .01). In addition, the coefficient of CSRcom is weakly negative (p < .10) in the financial sector. The coefficient of the moderating variable ESGs*CSRcom is significant positive in the financial sector (p < .05). Lastly, the coefficients of ESG and ΔESGs*CSRcom are not significant in any sample.

Table 5
Panel data regression analysis with fixed-effects (dependent variable: EBTM).

Independent variables	(2)	(3)	(4)
	Tourism	Healthcare	Finance
ESGs	0.15 (0.53)	-0.077 (-0.54)	-0.22* (-1.73)
ΔESGs	-0.076 (-0.72)	-0.046 (-0.76)	0.0085 (0.16)
CSRcom	-16.7 (-1.04)	-4.52 (-0.48)	2.30 (0.28)
ESGs*CSRcom	0.31 (1.07)	0.085 (0.55)	-0.098 (-0.67)
ΔESGs*CSRcom	-0.078 (-0.50)	-0.071 (-0.71)	0.18** (2.00)
Bsize	-0.13 (-0.13)	1.63** (2.38)	-0.35 (-0.69)
Bdivers	0.33 (1.54)	0.014 (0.12)	0.28** (2.49)
Bindep	-0.12 (-0.58)	-0.014 (-0.15)	-0.055 (-0.61)
CEOdual	-0.78 (-0.13)	0.010 (0.00)	-1.05 (-0.37)
FF	0.085 (0.46)	0.071 (0.52)	0.20* (1.79)
Fsize	-12.8*** (-3.24)	-1.86 (-0.65)	18.0*** (7.40)
Leverage	-0.56*** (-4.43)	-0.40*** (-3.56)	-1.16*** (-11.38)
Constant	313.6*** (3.54)	59.4 (0.99)	-302.1*** (-5.68)
<i>Firm-Year Effect</i>	Yes	Yes	Yes
<i>N</i>	730	299	3659
<i>R</i> ²	0.07	0.15	0.06
<i>F-stat.</i>	2.39**	2.03**	9.61***

t statistics in parentheses; *p < .10, **p < .05, ***p < .01.

Table 6
Panel data regression analysis with fixed-effects (dependent variable: ROA).

Independent variables	(2)	(3)	(4)
	Tourism	Healthcare	Finance
ESGs	-0.095 (-1.38)	-0.074 (-1.24)	-0.013 (-1.33)
ΔESGs	0.013 (0.48)	-0.0043 (-0.16)	-0.0018 (-0.41)
CSRcom	-11.4*** (-2.82)	-1.28 (-0.32)	0.25 (0.40)
ESGs*CSRcom	0.18** (2.44)	0.031 (0.48)	-0.0016 (-0.14)
ΔESGs*CSRcom	0.010 (0.26)	-0.039 (-0.89)	0.010 (1.41)
Bsize	0.16 (0.66)	0.60* (1.96)	0.00079 (0.02)
Bdivers	0.10* (1.88)	-0.027 (-0.56)	0.016* (1.78)
Bindep	-0.078 (-1.49)	0.024 (0.58)	0.0089 (1.25)
CEOdual	-3.55** (-2.24)	0.054 (0.05)	0.35 (1.60)
FF	-0.033 (-0.68)	0.12** (2.30)	0.019** (2.56)
Fsize	-3.16*** (-3.14)	-3.88*** (-3.07)	1.94*** (9.03)
Leverage	-0.13*** (-4.06)	-0.26*** (-5.13)	-0.21*** (-21.14)
Constant	98.1*** (4.36)	93.2*** (3.54)	-28.9*** (-5.97)
<i>Firm-Year Effect</i>	Yes	Yes	Yes
<i>N</i>	765	341	7065
<i>R</i> ²	0.12	0.25	0.09
<i>F-stat.</i>	4.38***	4.62***	29.41***

t statistics in parentheses; *p < .10, **p < .05, ***p < .01.

Table 7
Panel data regression analysis with fixed-effects (dependent variable: ROE).

Independent variables	(2)	(3)	(4)
	Tourism	Healthcare	Finance
ESGs	0.19 (0.54)	-0.22 (-0.65)	-0.012 (-0.35)
ΔESGs	-0.033 (-0.25)	0.10 (0.65)	0.019 (1.25)
CSRcom	-8.22 (-0.40)	-17.2 (-0.74)	-1.14 (-0.51)
ESGs*CSRcom	0.030 (0.08)	0.29 (0.77)	0.0072 (0.19)
ΔESGs*CSRcom	-0.054 (-0.27)	-0.35 (-1.39)	0.012 (0.50)
Bsize	0.75 (0.62)	5.93*** (3.35)	-0.090 (-0.77)
Bdivers	-0.029 (-0.11)	-0.13 (-0.46)	0.075** (2.46)
Bindep	0.12 (0.44)	-0.012 (-0.05)	-0.019 (-0.76)
CEOdual	7.51 (0.94)	-4.72 (-0.72)	-0.061 (-0.08)
FF	-0.023 (-0.10)	0.27 (0.91)	0.0026 (0.10)
Fsize	11.5** (2.27)	-24.1*** (-3.29)	3.00*** (4.03)
Leverage	-0.70*** (-4.41)	-0.52* (-1.80)	-0.13*** (-3.88)
Constant	-212.2* (-1.87)	508.0*** (3.33)	-45.8*** (-2.73)
<i>Firm-Year Effect</i>	Yes	Yes	Yes
<i>N</i>	765	341	7065
<i>R</i> ²	0.05	0.13	0.01
<i>F-stat.</i>	2.07**	2.06**	2.51**

t statistics in parentheses; *p < .10, **p < .05, ***p < .01.

Table 8
Panel data regression analysis with fixed-effects (dependent variable: Efficiency).

Independent variables	(2)	(3)	(4)
	Tourism	Healthcare	Finance
ESGs	-0.16 (-1.02)	0.25* (1.67)	0.0068 (0.25)
ΔESGs	0.031 (0.52)	-0.058 (-0.90)	-0.0025 (-0.21)
CSRcom	-10.7 (-1.16)	-4.12 (-0.41)	-1.54 (-0.85)
ESGs*CSRcom	0.037 (0.23)	-0.042 (-0.26)	0.051 (1.59)
ΔESGs*CSRcom	0.10 (1.14)	0.072 (0.67)	-0.022 (-1.07)
Bsize	0.014 (0.03)	-0.87 (-1.19)	0.36*** (3.28)
Bdivers	-0.064 (-0.52)	0.080 (0.68)	-0.00084 (-0.03)
Bindep	0.028 (0.23)	-0.061 (-0.58)	0.0035 (0.18)
CEOdual	-9.36*** (-2.65)	5.67* (1.68)	0.15 (0.25)
FF	0.0054 (0.05)	0.74*** (5.03)	0.052** (2.09)
Fsize	-26.7*** (-11.72)	-26.4*** (-8.63)	-7.78*** (-14.64)
Leverage	0.39*** (5.38)	-0.13 (-1.13)	-0.13*** (-6.01)
constant	653.8*** (12.84)	606.8*** (9.50)	194.9*** (16.73)
<i>Firm-Year Effect</i>	Yes	Yes	Yes
<i>N</i>	730	299	3663
<i>R</i> ²	0.29	0.43	0.12
<i>F-stat.</i>	12.44***	8.79***	22.02***

t statistics in parentheses; *p < .10, **p < .05, ***p < .01.

Table 9
Panel data regression analysis with fixed-effects (dependent variable: Sgrowth).

Independent variables	(2)	(3)	(4)
	Tourism	Healthcare	Finance
ESGs	0.18 (0.42)	-0.15 (-0.59)	-0.41 (-1.58)
ΔESGs	0.16 (0.96)	-0.11 (-1.06)	0.32*** (2.84)
CSRcom	-31.8 (-1.27)	-12.9 (-0.77)	-32.2* (-1.86)
ESGs*CSRcom	0.49 (1.08)	0.21 (0.79)	0.70** (2.28)
ΔESGs*CSRcom	0.10 (0.41)	0.071 (0.40)	-0.26 (-1.36)
Bsize	-0.091 (-0.06)	-2.20* (-1.81)	1.66 (1.58)
Bdivers	-0.070 (-0.21)	0.36* (1.82)	0.17 (0.70)
Bindep	0.11 (0.32)	0.045 (0.26)	-0.26 (-1.39)
CEOdual	-11.5 (-1.19)	-3.30 (-0.59)	-0.31 (-0.05)
FF	0.26 (0.89)	-0.13 (-0.52)	0.13 (0.56)
Fsize	39.6*** (6.37)	14.2*** (2.78)	14.0*** (2.74)
Leverage	0.48** (2.41)	-0.18 (-0.92)	0.13 (0.60)
Constant	-900.4*** (-6.47)	-252.1** (-2.37)	-293.8*** (-2.63)
<i>Firm-Year Effect</i>	Yes	Yes	Yes
<i>N</i>	728	299	3658
<i>R</i> ²	0.12	0.10	0.02
<i>F-stat.</i>	4.14***	2.01**	3.74***

t statistics in parentheses; *p < .10, **p < .05, ***p < .01.

Table 10 summarizes the findings of the individual samples of the tourism, healthcare, and financial.

3. Discussion and conclusion

This study uniquely focuses on tourism, healthcare, and finance sectors by measuring gross CSR performance as well as a change in CSR performance and incorporates the interaction effect of the CSR committee with CSR performance. Also, by diversifying firm performance metrics, it explores different implications for alternative performance improvements. Furthermore, it identifies whether there are any particularities among the three service sectors regarding the performance-enhancing role of CSR commitments. Although organizations may receive some non-financial benefits from CSR engagements, private

Table 10
A summary of findings for the tourism, healthcare, and finance samples.

	Tourism	Tobin's Q	EBTM	ROA	ROE	Efficiency	Sgrowth
ESGs	-	ns	ns	ns	ns	ns	ns
ΔESGs	ns	ns	ns	ns	ns	ns	ns
ESGs*CSRcom	+	ns	+	ns	ns	ns	ns
ΔESGs*CSRcom	ns	ns	ns	ns	ns	ns	ns
	Healthcare	Tobin's Q	EBTM	ROA	ROE	Efficiency	Sgrowth
ESGs	ns	ns	ns	ns	ns	+	ns
ΔESGs	ns	ns	ns	ns	ns	ns	ns
ESGs*CSRcom	ns	ns	ns	ns	ns	ns	ns
ΔESGs*CSRcom	ns	ns	ns	ns	ns	ns	ns
	Finance	Tobin's Q	EBTM	ROA	ROE	Efficiency	Sgrowth
ESGs	+	-	ns	ns	ns	ns	ns
ΔESGs	ns	ns	ns	ns	ns	ns	+
ESGs*CSRcom	ns	ns	ns	ns	ns	ns	+
ΔESGs*CSRcom	ns	+	ns	ns	ns	ns	ns

^a ns: not significant.

companies expect their CSR investment to be justified by financial returns. CSR efforts are costly investments due to their human resource and information system requirements. Thus, translating those CSR practices into increased firm performance is an important challenge for business organizations to address.

The regression results for individual sectors yielded different outcomes, which confirms the findings of [Sudana et al. \(2019\)](#) that showed varying results across industries. In this respect, while CSR performance per se is value-relevant for financial sector investors, it is not value-relevant for the tourism or healthcare sector. In the tourism sector, CSR performance requires interaction with the firm's CSR committee to generate value. The data indicates that the CSR committee is particularly influential and necessary in motivating stockholders to pay increased share prices in the tourism sector. However, CSR performance per se and its interaction with the CSR committee are not value-relevant for the healthcare sector. Hence, the finding for the healthcare sector confirms the argument of [Rodrigue et al. \(2013\)](#) that CSR committees are symbolic rather than consequential, but the finding for the tourism sector is in line with several positive views about the role of CSR committees in ensuring corporate legitimacy ([Mallin and Michelon, 2011](#)) and sustained corporate commitment to CSR ([Hussain et al., 2018](#)).

Second, considering the accounting-based firm performance metrics employed in this study, in the tourism sector, ROA is only enhanced through interaction between CSR performance and CSR committee, whereas neither CSR performance nor change in CSR performance results in higher EBTM and ROE. By incorporating change in CSR performance, this finding provides additional evidence over [Uyar et al. \(2020\)](#)'s proven negative association between CSR performance and profitability within the tourism sector. The healthcare sector yielded consistently insignificant results according to all accounting-based performance indicators used. Furthermore, across three profitability metrics, firm performance in the healthcare sector was not enhanced by CSR performance change as well. Hence, the healthcare sector does not confirm [Mishra and Suar \(2010\)](#)'s argument that a firm's favorable social behavior satisfies the primary stakeholders that provide cost advantages and efficiency gains, which eventually increases profitability. Even CSR committees cannot help the healthcare sector translate CSR investment into greater firm profitability. Furthermore, CSR performance and change in CSR performance do not have a direct significant association with profitability in the financial sector at all, except a weak negative significant coefficient in EBTM. Nevertheless, the interaction between CSR performance change and the CSR committee improves EBTM. This finding confirms that board committee settings within the internal governance mechanism play a role in leveraging CSR to firm performance ([Khan et al., 2013](#)). Overall, the results show that the link between CSR performance and profitability is metric-sensitive and sector-sensitive.

Third, while the healthcare sector is successful in generating higher sales revenue relative to CSR performance with available assets (efficiency), the tourism and financial sectors are not. CSR performance change is particularly influential in achieving increased sales growth in the financial sector. In addition, although CSR performance alone is not sufficient in generating increased sales growth, the help of the CSR committee makes sales growth possible in the financial sector. The sectors that achieve higher efficiency and/or sales growth are more likely to strategically target consumers through CSR efforts ([Ruf et al., 2001](#); [Rodgers et al., 2013](#)) and/or to enhance employee motivation through CSR investments ([Becchetti and Trovato, 2011](#)).

In summary, the findings suggest that there is no "one size fits all" approach for different types of sectors. This has been proven true even within the relatively homogeneous sample of service firms within this study. However, it should be noted that, despite the notable differences between the sampled sectors, there are some congruences among them. Therefore, every service sector must develop its own particular strategy to translate CSR performance into firm performance. This study provides an opportunity for these sectors to leverage CSR for firm performance

improvement and suggests refined guidelines by employing alternative types of performance and CSR metrics.

3.1. Implications, limitations, and future research avenues

The findings of this study suggest implications for shareholders, firms, and CSR committees. Shareholders can utilize these findings to examine their investment and trading decisions in each sector. They can assess whether or not CSR generates adequate value for them and also whether CSR committees help to increase the value generation of CSR efforts. Firms can consider these findings when reviewing their CSR strategies and evaluate the establishment of CSR committees accordingly. For example, CSR and change in CSR performance in the tourism sector do not generate value, neither enhances efficiency nor sales growth. In the healthcare sector, CSR and change in CSR performance do not improve firm value and profitability. Hence, tourism and healthcare firms should review their corporate agendas for translating CSR investment to higher firm performance.

More specifically, it is imperative to establish CSR committees within tourism firms to enhance the firm value of CSR practices since CSR performance and change in CSR performance per se do not generate value unless CSR performance interacts with the CSR committee. As CSR committees cannot help generating value out of CSR performance in the healthcare sector, the boards of directors should review the configuration, agenda, and monitoring ability of the CSR committees. Moreover, the interaction of CSR committees with the change in CSR performance in both tourism and healthcare sectors does not generate value, which may imply that stockholders are satisfied with the current level of CSR engagement. They may think that excessive CSR engagement is costly and thereby detrimental to firm value. In the financial sector, CSR committees do not appear to be influential in generating value from CSR engagement. While CSR performance per se is value-relevant in this sector, change in CSR performance is not. Like the healthcare sector, CSR committees cannot currently contribute to achieving higher market value in the financial sector. Because of this, the current structures, qualifications, and agendas of CSR committees within the finance sector must be reviewed to develop policies that communicate the outcomes of CSR achievements with shareholders through the use of social media, corporate websites, and standalone CSR reporting.

The results of accounting-based measures can guide firms on how to improve the profitability of CSR practices, which requires a focus on increasing revenues and controlling costs. Among the three sectors surveyed in this study, healthcare appears the weakest sector in terms of profitability since it cannot generate profit out of CSR performance and CSR performance change with and without CSR committees. The tourism sector cannot earn profits according to the three profitability metrics out of either CSR performance or CSR performance change; it can only improve profitability in one metric (ROA) with the moderation of CSR committees. Supporting this evidence, while efficiency and sales growth in the tourism sector are not enhanced by CSR performance with or without a CSR committee, CSR improves efficiency in the healthcare sector. As was discussed in this study's literature review, the tourism sector can introduce and intensify internal CSR to improve working conditions and employee standards, to retain qualified personnel, and to grow a repeat customer base to experience higher operational performance and receive greater benefits from CSR efforts ([Famiyeh, 2017](#)). The tourism sector is also advised to develop CSR-focused brand-building and marketing strategies to boost sales and cost-controlling from CSR efforts, such as reducing resource usage and promoting recycling. On the other hand, CSR performance and change in CSR performance cannot boost revenue growth in the tourism and healthcare sectors with and without CSR committees. The results currently render CSR committees ineffective at achieving higher revenues out of CSR efforts in these sectors. Indeed, this outcome might also demonstrate an insufficient existence of CSR committees in the tourism and healthcare sectors. According to the descriptive statistics, the existence of CSR

committees in the healthcare sector during the analysis period was lower than those of the tourism and financial sector which could be increased in the forthcoming periods.

Finally, while the financial sector has been successful at translating CSR performance change to achieve increased revenues, CSR cannot succeed in achieving higher profits in terms of all three profitability metrics without support from a CSR committee. However, a CSR committee's role in fostering profitability is limited to only one metric of profitability, earnings before tax margin. These findings highlight the limited ability of the financial sector to achieve higher revenues and profitability through CSR investments. Even the presence of a CSR committee cannot ameliorate the situation significantly because it has a very limited role in managing profitability and sales performance. In order to improve this situation, a firm's board of directors must assign their company's CSR committee a more active role in developing relevant marketing and cost management strategies so that higher revenues and profitability may be achieved.

Thus, the three sampled service sectors enjoy higher firm performance out of their CSR efforts depending on the metric and sometimes with the support of CSR committees. In line with the findings of the study, these three sectors can now determine their corporate strategies more accurately, regarding how to translate CSR investment into firm performance with or without the formulation of a CSR committee. The three service sectors must consider policies that will generate revenue, monitor and control costs, and communicate CSR initiatives with shareholders and stakeholders like employees and customers, as these two groups are likely to boost revenue. CSR committees must develop specific policies to improve each performance metric by leveraging CSR investments to target shareholders, employees, and customers, among other stakeholders. Hence, as a response to the two research questions posed in the introduction section, the effect of CSR performance and CSR performance change on firm performance is dependent on the metrics and sector of the firm, and CSR committees have a limited moderation effect between CSR performance and firm performance.

This study poses several limitations: the findings are particular to the three surveyed service sectors (tourism, healthcare, and finance). Because of this, the results may not be valid for other service and manufacturing firms. For example, in another service sector such as media, the results might differ, as it is more visible to the public, and firms in this sector may feel greater pressures of stakeholders than other sectors, which could also affect their CSR practices. This limitation also provides future research opportunities within other service sectors and the manufacturing industry. Moreover, as the CSR performance is likely to be time-varying, the results should be considered within the sample period of the study (2011–2018). Finally, the CSR committee variable is measured with the committee's existence or not with a binary variable due to the availability of the data in the data source; hence, it was impossible to incorporate the characteristics of the CSR committee due to the unavailability of the data.

Potential avenues of future research can also be identified through this study. A qualitative study might provide useful insights into how CSR translates CSR performance into firm performance at the varying metrics of performance. Furthermore, aside from the CSR committee, other moderators like female directors or ownership types might be tested to see whether they play a critical role in connecting CSR performance to firm performance. Furthermore, testing the highlighted associations in shareholder versus stakeholder-oriented environments may yield different outcomes, which deserves to be the subject of future studies. Finally, individual metrics of ESG (environmental, social, and governance) may provide particular insights if examined in future studies. For example, such examinations may prove which individual ESG metric is the most influential metric on firm performance improvement. This study was not able to pursue such examinations because of its existing analysis of three sectors and its use of several performance metrics, which rendered an already complex investigative framework.

CRediT authorship contribution statement

Cemil Kuzey: Methodology, Formal analysis. **Ali Uyar:** Methodology, Conceptualization, Writing – original draft, Writing – review & editing. **Mirgul Nizaeva:** Conceptualization, Writing – original draft, Writing – review & editing. **Abdullah S. Karaman:** Data curation, Methodology.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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