CORPORATE SOCIAL RESPONSIBILITY AND THE MARKET PERFORMANCE OF BRAZILIAN COMPANIES

Responsabilidade Social Corporativa e o Desempenho de Mercado de Empresas Brasileiras

Larissa Degenhart[1]
Mikaéli da Silva Giordani[2]
Ismael Alan Halberstadt[1]
Cristiano Sausen Soares[1]
Vinícius Costa da Silva Zonatto[1]

1 Federal University of Santa Maria (UFSM), 2 Regional University of Blumenau (FURB)

ABSTRACT

Purpose – This research aimed to analyze the relationship between Corporate Social Responsibility (CSR) and the market performance of Brazilian companies.

Design/methodology/approach – A descriptive, documentary and quantitative research was carried out using panel data regression. The analysis period covered 2010 to 2018 and the sample comprised 41 companies.

Findings – The results revealed that investments in external CSR and the fact that companies are listed on the ISE index increase their market value. The CSR information of Brazilian companies aimed at investments made for a society helps to increase market performance.

Research limitations/implications – It should be noted that the results cannot be generalized for all Brazilian companies. This research contributes to the accounting and CSR literature, by analyzing the benefits of CSR on companies' market performance.

Practical implications – The findings assist investors in the decision-making process, as companies that have CSR actions have positive impacts on their value, operational efficiency and the ability to generate financial performance.

Social implications – The results have social implications, as they reinforce the importance of companies investing in CSR, which can improve their market value and benefit society with practices aimed at social well-being.

Originality/value – CSR was analyzed in several aspects in the accounting literature. However, the focus of the relationship between CSR and specifically market performance has been little explored in Brazil, a fact that denotes research value.

Keywords: Corporate Social Responsibility; Market performance; Brazilian companies.

RESUMO

Objetivo - Esta pesquisa objetivou analisar a relação entre a Responsabilidade Social Corporativa (RSC) e o desempenho de mercado de empresas brasileiras.

Desenho/metodologia/abordagem - Realizou-se uma pesquisa descritiva, documental e quantitativa a partir da regressão de dados em painel. O período de análise abrangeu 2010 a 2018 e a amostra compreendeu 41 empresas.

Resultados - Os resultados revelaram que os investimentos em RSC externa e o fato das empresas estarem listadas no índice ISE aumentam o seu valor de mercado. As informações de RSC das empresas brasileiras voltadas aos investimentos realizados para a sociedade auxiliam para com o aumento do desempenho de mercado.

Limitações/implicações da pesquisa – Destaca-se que os resultados não podem ser generalizados para todas as empresas brasileiras. Esta pesquisa contribui para com a literatura contábil e de RSC, ao analisar os benefícios da RSC no desempenho de mercado das empresas.

Implicações práticas – Os achados auxiliam os investidores no processo de tomada de decisão, visto que as empresas que possuem ações de RSC apresentam reflexos positivos em seu valor, eficiência operacional e capacidade de gerar desempenho financeiro.

Implicações sociais – Os resultados apresentam implicações sociais, pois reforçam a importância de as empresas investirem em RSC, o que pode melhorar o seu valor de mercado e beneficiar a sociedade com práticas que visam o bem-estar social.

Originalidade/valor – A RSC foi analisada sob diversos aspectos na literatura contábil. Contudo, o foco da relação entre RSC e especificamente o desempenho de mercado foi pouco explorado no Brasil, fato que denota valor a pesquisa.

Palavras-chave: Responsabilidade Social Corporativa. Desempenho de mercado. Empresas brasileiras.

1 INTRODUCTION

With the increasing pressure for companies to become sustainable in today's competitive economy, they are increasingly concerned with the conscious use of resources (Kwon & Lee, 2019). In this sense, driven by government and capital market forces, companies have made significant progress in incorporating Corporate Social Responsibility (CSR) practices in recent years (Han et al., 2018).

Companies can start disclosing their CSR practices for several reasons, such as, for example, developing a better relationship with customers, employees, suppliers, reputation for their high-quality products and services, and even socially and environmentally responsible (Rezaee et al., 2019), factors that may reflect on the market performance of these companies.

Thus, CSR can be seen as an integral part of corporate strategy (Choi et al., 2010), as companies identify the opportunity to obtain strategic and competitive advantages by investing resources in CSR (Soares et al., 2018), which is linked to the long-term sustainability of companies (Freguete et al., 2015). In this way, social disclosure can be defined as the information that companies make public in their annual and sustainability reports, which is related to their performance, standards, or activities aimed at CSR, that is, internal, external, and environmental social benefits that companies incorporate in their activities (Brooks & Oikonomou, 2018).

The theory of interested parties addresses that a socially responsible company pays attention to the interests of all interested parties (Freeman, 1984). To that end, the link between CSR and companies' market performance can be established, as investors and key stakeholders reward companies and respond to stakeholder concerns (Lin et al., 2019). Yoon and Chung (2018) argue that stakeholders set standards and assess corporate behavior. Thus, executives and managers must meet the expectations of the different parties, which can lead to an increase in the market value of companies.

In this context, the issue of the potential value of CSR disclosure to shareholders has attracted growing interest in academia, as many studies have examined the usefulness of disclosing

CSR practices to shareholders, analyzing the impacts of this voluntary disclosure on the market value of companies (Nekhili et al., 2017). According to Freguete et al. (2015), studies on CSR have been, over the last decades, a theme present in the academic environment. Although the disclosure of CSR transmits important information to the capital market participants (shareholders, investors, potential shareholders, and financial analysts), this disclosure and its reflexes in the capital market (market performance), are still inconclusive and questionable (Cahan et al., 2016).

CSR has already been analyzed under several aspects in the accounting literature, such as its relationship with the abnormal return on shares (Nossa et al., 2009; Maqbooln & Zameer, 2018), share price, flow expected future of cash and cost of equity (Costa et al., 2018), financial performance (Mallin et al., 2014; Freguete et al., 2015; Esteban-Sanchez et al., 2017; Maqbooln & Zameer, 2018), quality of earnings - earnings management (Gao & Zhang, 2015; Rezaee et al., 2019). However, few surveys have been conducted in Brazil (Nossa et al., 2009; Freguete et al., 2015; Costa et al., 2018; Peria et al., 2020) to identify whether CSR can help explain the market performance of companies because, in general, the relationship between CSR and economic-financial performance is predominant in studies. This research gap in the literature contributes to the development of new studies in the accounting area.

Most research on CSR has focused on developed economies, as in the United States and European countries, with a lower agency cost between managers and shareholders, and thus there was a positive effect of CSR on economic performance -financial and market (Kao et al., 2018). After conducting a review of the accounting and finance literature on the effects of environmental, social, governance and performance disclosures on the company's value, Brooks and Oikonomou (2018) found that the relationship between CSR and financial performance and market share of companies is not clear, which encourages the development of this research.

Despite the finding that corporate environmental sustainability contributes to greater competitiveness and better performance of a company, there is still a lack of consensus on the impact of CSR on the company's valuation/value (Kwon & Lee, 2019). In this sense, motivated by inconclusive results, we have the following research question: What is the relationship between Corporate Social Responsibility and the market performance of Brazilian companies? To answer the question presented, this study aims to analyze the relationship between Corporate Social Responsibility and the market performance of Brazilian companies. This investigation allows us to understand whether there is a long-term benefit obtained by companies through CSR practices and its dissemination to society.

The development of this research is justified, as the perception of the shareholders can interfere in the decision of a manager between investing or not in social and environmental practices, as of CSR (Nossa et al., 2009). Also, the literature addresses some long-term benefits provided by CSR practices (Freguete et al., 2015), such as better performance. CSR plays an important role in obtaining competitive advantage, thus improving the company's reputation and increasing its value (Dhaliwal et al., 2012), an argument that explains the involvement of companies in activities of CSR (Han et al., 2018), which also justifies this study.

Huang and Watson (2015) developed a review of 100 CSR-related studies published in 13 leading accounting and business journals and suggest that the results of these studies are mixed and often inconclusive as to the impacts of CSR disclosure on financial and market performance of the company, quality of earnings and cost of capital. The confirmation of inconclusive results in the accounting literature also justifies the development of research in the proposed context. The analysis of this theme in Brazil is justified, as according to Maqbooln and Zameer (2018), corporate social responsibility is taking strong roots in developing countries, as in Brazil.

This article differs from other research already carried out on this subject and contributes to the accounting literature, since much of the previous research focuses on the association

between financial and economic performance and CSR, and the market performance measured by Tobin's Q and CSR. The present research seeks to investigate other market performance variables together with Tobin's Q, specifically analyzing the impact of CSR on the various measures of market performance.

This research contributes to the CSR literature, by analyzing its benefits for the market performance of Brazilian companies. The results also contribute to the strategic decision of companies focused on CSR, since companies that aim to increase the market value, can invest more in CSR practices, thus improving investments in internal, external, and environmental social benefits. Besides, CSR's contribution to companies 'market performance serves to support companies' decision to invest more in CSR. Finally, it should be noted that the results obtained in Brazil can provide some useful information for policymakers in promoting CSR activities and further promote this discussion to other emerging markets.

2 FORMULATION OF HYPOTHESES

2.1 Corporate Social Responsibility and Market Performance

There are many reasons for management to be oriented towards CSR, among these, it is highlighted that for some managers investing in social purposes can work as part of the strategy developed with a view to companies achieving competitive advantages and sustainability of the enterprise (Freguete et al., 2015). Wang et al. (2014), argue that with the practice of CSR, the company will be able to optimize the use of natural resources in its production line, have less burden with labor causes, implement technological innovations that increase efficiency consequently, there will be fewer production costs and an increase in its market value.

In this sense, the theme of CSR is the subject of empirical studies that aimed to present quantitative evidence of the relationship between CSR and the financial and market performance of companies. However, the decision to invest in a social/environmental project is at the discretion of the manager, therefore, the shareholder does not have access to information that this project may be a positive signal or not for the company in the stock market (Nossa et al., 2009). Since the concept of CSR was incorporated into the accounting literature, definitions and debates about its effect on the company's value (market performance) have been the subject of relevant academic research (Lee et al., 2013).

However, for stakeholders (investors, employees, customers, suppliers, and the community), CSR can influence investor valuation and capital investment decisions in the capital market (Han et al., 2018), which can impact the market performance of these companies. Market performance can be analyzed under several variables. The Price Earning Ratio (PER), Price Book Value (PBV), Price Sales Ratio (PSR), Price Cash Dividends (PCD) and Tobin's Q stand out in this research. According to Assaf Neto (2012), the indicators referring to market performance aim to evaluate the company's performance on its shares.

Several studies, over the years, have aimed to find a relationship between CSR and market performance, more precisely measured by Tobin's Q. However, conflicting results were obtained, which prevents a consensus between this relationship and what stimulates the realization of this study. Studies that found a positive relationship between CSR and market performance were found in the accounting literature: Choi et al. (2010), Kang et al. (2010), Kim and Kim (2014), Gao and Zhang (2015), Cahan et al. (2016), Nekhili et al. (2017), Wang and Sarkis (2017), Ioannou and Serafeim

(2017), Han et al. (2018), Feng et al. (2018), Yoon and Chung (2018), Kim et al. (2018), Bae et al. (2019), Suganthi (2019), Lin et al. (2019) and Kwon and Lee (2019), negative: Lee et al. (2013), Nekhili et al. (2017) and Han et al. (2018) and neutral relation (without significance): Nossa et al. (2009), Rodriguez-Fernandez (2016) and Costa et al. (2018).

Regarding the positive relationship between CSR and market performance, Nossa et al. (2009) approach that the existence of this relationship, from a financial perspective, allows the measurement of how positively the shareholders see the investment of resources in CSR. The vision of improving the company's value (market performance), maintains that CSR increases the well-being of shareholders and improves relations between companies (Bae et al., 2019), and studies show that CSR adds value to market performance (Lin et al., 2019).

Choi et al. (2010) and Kang et al. (2010) found a positive relationship between CSR and market performance (Tobin's Q) and Kang et al. (2010) showed a positive relationship with the PER index. This result suggests that it is important for companies to realize that CSR aspects are relevant to stakeholders and that social and environmental initiatives, when properly developed, tend to improve market performance (Choi et al., 2010). The results of Kim and Kim (2014) revealed that CSR increases shareholder value and Tobin's Q (market performance). Gao and Zhang (2015) found that companies that earn investments in CSR have a higher return on shares and market performance (Tobin's Q). The authors show that CSR is desirable in companies, as it adds a useful "quality dimension" for companies' evaluation.

Cahan et al. (2016) analyzed 21 countries, including Brazil. The authors found a positive relationship between CSR and company value as measured by Tobin's Q. The study by Nekhili et al. (2017) also acknowledged that the disclosure of CSR practices in reports has positive effects on the capital market of family businesses. The results of Wang and Sarkis (2017) suggest that if companies successfully implement CSR governance to generate good CSR results, it plays an important role and positively influences the performance of companies, as measured by Tobin's Q.

The findings by Ioannou and Serafeim (2017) indicate that the increases in sustainability disclosure driven by regulation are associated with increases in company valuations, as reflected in Tobin's Q. Such evidence suggests that efforts to increase transparency regarding the impact of companies on society are effective in improving the amount of disclosure in reports and greater corporate value.

Han et al. (2018) analyzed the relationship between market performance (sales growth) and the CSR of Chinese companies and found that CSR increases the sales growth of competitive companies in the market. Feng et al. (2018) explored whether companies' CSR activities provide added value to capital market participants. The results indicated that CSR provides increases in added value, thus improving the market performance. These results are consistent with the perception of maximizing stakeholder value and that CSR activities have a positive effect on shareholders' wealth. This is because the interests of shareholders and other stakeholders in companies with high CSR are more aligned than in companies with low CSR and are more likely to contribute to the profitability and long-term operation of these companies (Feng et al., 2018).

The study by Yoon and Chung (2018) revealed that the external social benefits of CSR increase the market value of a company. Kim et al. (2018) found that socially responsible activities increase the company's performance (Tobin's Q). Bae et al. (2019) found that CSR positively impacts sales growth (market performance). The results of Suganthi's research (2019) also confirmed that CSR activities have a positive relationship with market performance.

Lin et al. (2019) examined whether CSR has a signaling effect on stakeholders and results in financial benefits for Taiwanese companies. The authors found that allocating resources to diversity, labor rights, variable remuneration, general benefits, training, health, and worker safety can

be beneficial to the creation of a company's value. Finally, Kwon and Lee (2019) showed that CSR is positively related to the market value (Tobin's Q) of technology industries.

On the other hand, Lee et al. (2013) found results that CSR has negative effects on a company's market value. The results of Nekhili et al. (2017) revealed that market-based financial performance, as measured by Tobin's Q, is negatively related to the disclosure of CSR to non-family businesses. The authors argue that family businesses benefit greatly from disclosing their commitment to CSR, as they may have a more direct relationship with shareholders than non-family businesses (Nekhili et al., 2017). Han et al. (2018) also found a negative relationship only in Chinese companies that are not competitive in the market. They found that CSR reduces the market performance of companies operating in non-competitive sectors.

Besides a positive and negative relationship between CSR and market performance, research was also found that did not statistically confirm this relationship. In Brazil, Nossa et al. (2009) investigated the relationship between abnormal return and social and environmental performance (CSR) in Brazilian companies. The results revealed that the internal and external social responsibility indicator and the environmental responsibility indicator are not related to the abnormal return (market performance) of the companies analyzed. Rodriguez-Fernandez's research (2016) also did not find a significant relationship between market performance (Tobin's Q) and the CSR of companies in Madrid, Spain. Costa et al. (2018) found that Brazilian companies in the IBrX-100 index analyzed in the period between 2010 and 2015, mostly disclose socioenvironmental information (75%), however, such information did not affect the companies' value.

Given the context of the studies presented, Yoon and Chung (2018) approach that investors in the capital market interpret internal and external involvement with CSR activities, as a sign of the quality of the management team, which can cause companies to increase market value (Yoon & Chung, 2018). Internal, external, and environmental social benefits related to CSR are expected to be related to an increase in market value. Based on the above, the following hypotheses were elaborated:

H1: *Internal CSR practices positively affect the market performance of Brazilian companies.* **H2:** *External CSR practices positively affect the market performance of Brazilian companies.* **H3:** *Environmental CSR practices positively affect the market performance of Brazilian companies.*

3 METHODOLOGICAL PROCEDURES

This research aimed to analyze the relationship between Corporate Social Responsibility and the market performance of Brazilian companies, through a descriptive, documentary research and a quantitative approach to the data.

The study population comprised all companies listed on Brasil Bolsa, Balcão (B3). The survey sample corresponded to 41 companies that released information on the expenses with internal, external, and environmental social benefits in the Social Balance Sheet (IBASE) and in the Sustainability Report prepared according to the GRI report. Of these companies, 10 were listed on the Corporate Sustainability Index (CSI) during the period analyzed. This sample was delimited by the companies that presented all information concerning the variables and the period analyzed, which comprised the years 2010 to 2018. Financial companies, insurance companies, and those considered outliers were excluded from the sample, as they may present outliers regarding the market performance.

We analyzed companies that released the Social Balance in the period under analysis, according to the Brazilian Institute of Social and Economic Analysis (IBASE) and Global Reporting Initiative (GRI) and companies listed in the ISE index, to compare the results of companies that disclose

reports and companies that are listed in this B3 index. The selection of the sample made it possible to analyze the influence of CSR on market performance between companies that disclose CSR in sustainability reports and companies listed in the ISE index.

The collection of data regarding the market performance (PER, PBV, PSR, PCD, and Tobin's Q) and control variables (Company size and financial leverage) was performed in the Thomson Reuters® database. Information on companies 'CSR (Internal Social Indicators (ISI), External Social Indicators (ESI), and Environmental Indicators (EI)) were collected from the companies' Social Balance Sheets (IBASE) and the Sustainability Reports prepared following the GRI. The CSR variables were composed of Internal, External, and Environmental Social Indicators and divided by the total assets of the companies. Table 1 shows the variables used in the study.

Table 1 - **Variables used in the study**

Description	Proxy	Author (year)
Dependent variables		
Price Earning Ratio (PER)	$\dfrac{Market\ value}{Earnings\ per\ share}$	Kang et al. (2010); Suganthi (2019).
Price Book Value (PBV)	$\dfrac{Market\ value}{Book\ Value\ per\ Share}$	Suganthi (2019).
Price Sales Ratio (PSR)	$\dfrac{Market\ value}{Net\ Revenue\ per\ Share}$	Choi et al. (2010); Han et al. (2018); Bae et al. (2019); Suganthi (2019).
Price Cash Dividends (PCD)	$\dfrac{Dividend\ per\ Share}{Market\ value}$	Suganthi (2019).
Tobin's Q	$\dfrac{VMAO + VMAP + VCD}{Total\ Assets}$	Kang et al. (2010); Choi et al. (2010); Lee et al. (2013); Kim and Kim (2014); Gao and Zhang (2015); Rodriguez-Fernandez (2016); Cahan et al. (2016); Wang and Sarkis (2017); Nekhili et al. (2017); Ioannou and Serafeim (2017); Kao et al. (2018); Yoon and Chung (2018); Kim et al. (2018); Hasan et al. (2018); Lin et al. (2019); Kwon and Lee (2019).
Independent variables		
Corporate Social Responsibility (CSR)	Internal Social Indicators (ISI)	Nossa et al. (2009); Kang et al. (2010); Choi et al. (2010); Lee et al. (2013); Kim and Kim (2014); Gao and Zhang (2015); Cahan et al. (2016); Rodriguez-Fernandez (2016); Wang and Sarkis (2017); Nekhili et al. (2017); Ioannou and Serafeim (2017); Kao et al. (2018); Han et al. (2018); Yoon and Chung (2018); Kim et al. (2018); Hasan et al. (2018); Lin et al. (2019); Kwon and Lee (2019).
	External Social Indicators (ESI)	
	Environmental Indicators (EI)	
Corporate Sustainability Index (CSI)	Dummy variable, assuming 1 for companies listed on the CSI and 0 otherwise.	Own elaboration of the variable for additional tests.
Control Variables		
Company Size (SIZE)	Ln of the book value of the company's total assets	Nossa et al. (2009); Choi et al. (2010); Lee et al. (2013); Gao and Zhang (2015); Rodriguez-Fernandez (2016); Cahan et al. (2016); Nekhili et al. (2017); Yoon and Chung (2018); Kim et al. (2018); Hasan et al. (2018); Kwon and Lee (2019).
Financial Leverage (LEV)	$\dfrac{Return\ on\ Equity}{Return\ on\ Assets}$	Lee et al. (2013); Gao and Zhang (2015); Cahan et al. (2016); Nekhili et al. (2017); Yoon and Chung (2018); Kim et al. (2018); Hasan et al. (2018); Costa et al. (2018).

VMAO: Market value of common shares; VMAP: Market value of preferred shares; VCD: Book value of debt.

Source: Research data.

According to Table 1, five equations were formulated for panel data regressions. The first analyzed the influence of Internal, External and Environmental Social Indicators, Company size, and Financial Leverage on the Price Earning Ratio (PER). The second equation, the influence of these variables on the Price Book Value (PBV). The third sought to highlight the relationship with the Price Sales Ratio (PSR) market performance indicator. The fourth equation sought to relate the independent and control variables with the Price Cash Dividends (PCD) indicator and finally, the fifth equation with the market performance measured by Tobin's Q. It is noteworthy that a complementary analysis was developed (Table 4), adding a dummy variable to the model, that is, companies listed and not listed in the CSI index, but that disclose their investments in CSR, to identify the impact of the company be listed in this important index on market performance. Following are the equations:

$$PER = \beta_0 + \beta_1 ISI + \beta_2 ESI + \beta_3 EI + \beta_4 SIZE + \beta_5 LEV + \varepsilon \qquad (1)$$

$$PBV = \beta_0 + \beta_1 ISI + \beta_2 ESI + \beta_3 EI + \beta_4 SIZE + \beta_5 LEV + \varepsilon \qquad (2)$$

$$PSR = \beta_0 + \beta_1 ISI + \beta_2 ESI + \beta_3 EI + \beta_4 SIZE + \beta_5 LEV + \varepsilon \qquad (3)$$

$$PCD = \beta_0 + \beta_1 ISI + \beta_2 ESI + \beta_3 EI + \beta_4 SIZE + \beta_5 LEV + \varepsilon \qquad (4)$$

$$Tobin's\ Q = \beta_0 + \beta_1 ISI + \beta_2 ESI + \beta_3 EI + \beta_4 SIZE + \beta_5 LEV + \varepsilon \qquad (5)$$

For a better understanding of the variables used in the research, in the sequence, a detail is presented. CSR variables comprise the Internal, External, and Environmental Social Indicators. Internal social indicators refer to all expenses incurred by companies with social actions within the organization, such as, for example, benefits related to employee food, social charges, private pension, health, safety, and medicine at work, among other benefits (IBASE, 2019). External social indicators refer to the total resources allocated to society, such as contributions to education, health, culture, sports, leisure, among others (IBASE, 2019). Environmental indicators are all resources spent by companies on the environment, including investments related to the company's production/operation, programs, and/or external projects, as well as the establishment of annual goals to minimize waste, consumption in general production/operation, and increase efficiency in using natural resources (IBASE, 2019).

Concerning the market performance, the PER indicator shows how much the investors are willing to pay per monetary unit of profits reported by companies (Ross et al., 2015). The market price per common share of the company, divided by its book value, corresponds to the PBV market performance indicator. The analysis of this index allows a "safer" investment in companies, as the book value is the basis of the price practiced in the market (Bodie et al., 2015). The relationship between market value and net revenue is called PSR, which refers to a multiple of revenue that aims to measure the value of equity regarding the revenue it generates. The PCD indicator relates the dividends distributed with the value of the share, that is, it represents the proportion of the profits that are destined to the shareholders. Thus, companies with high PCD rates have a good prospect of dividend distribution (Assaf Neto, 2012). Finally, Tobin's Q indicator aims to measure how the market values a company's operational efficiency and the ability to generate good financial performance (Tobin, 1969).

Two control variables were included in the model, company size, and financial leverage, as they are relevant variables for explaining a company's market performance (Yoon & Chung, 2018).

According to the authors, large companies tend to have better market performance, as they can obtain better efficiencies in their operations, such as lower costs and greater purchasing power. Also, to leverage the company's capital structure over market performance, financial leverage was included. A company with high financial leverage can use tax benefits, increasing its market performance (Tobin's Q) (Yoon & Chung, 2018). For data analysis, normality testing, spearman correlation and panel data regression (SPSS® and STATA® software) were performed.

4 PRESENTATION AND ANALYSIS OF RESULTS

4.1 Correlation between variables

Before analyzing the relationship between CSR and the market performance of Brazilian companies, using panel data regression, the normality test and, subsequently, the spearman correlation were performed, as shown in Tables 2 and 3.

Table 2 - **Normality Test**

Variables	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PER	0.486	369	0.000	0.078	369	0.000
PBV	0.515	369	0.000	0.101	369	0.000
PSR	0.492	369	0.000	0.116	369	0.000
PCD	0.390	369	0.000	0.169	369	0.000
Tobin's Q	0.123	369	0.000	0.866	369	0.000
CSR (ISI)	0.508	369	0.000	0.146	369	0.000
CSR (ESI)	0.438	369	0.000	0.172	369	0.000
CSR (EI)	0.395	369	0.000	0.281	369	0.000
SIZE	0.092	369	0.000	0.948	369	0.000
LEVERAGE	0.270	369	0.000	0.393	369	0.000

Source: Research data.

The data presented in Table 2 reveal that the data do not have a normal distribution, since the Kolmogorov-Smirnov and Shapiro-Wilk tests were significant at the 1% level. Thus, to analyze the association between the variables, aiming to identify possible multicollinearity problems, the spearman correlation must be performed on the data. Table 3 shows the results of the spearman correlation between the variables analyzed in the model.

Table 3
Spearman correlation between variables

Variable	PER	PBV	PSR	PCD	Tobin's Q	ISI	ESI	EI	SIZE	LEV
PER	1	0.404*	0.348*	-0.362*	0.138*	0.073	0.113**	0.043	0.091	0.028
PBV		1	0.499*	-0.253*	0.191*	0.036	0.024	-0.059	0.198*	0.263*
PSR			1	-0.150*	0.117**	-0.098	0.009	-0.172*	-0.085	0.380*
PCD				1	-0.190*	-0.058	0.106**	-0.067	0.169*	0.187*
Tobin's Q					1	-0.050	0.025**	-0.016	0.147*	0.022**
CSR (ISI)						1	0.040*	0.038*	0.145*	-0.071
CSR (ESI)							1	0.285*	-0.072	-1.143
CSR (EI)								1	0.167*	0.048
SIZE									1	0.265*
LEVERAGE										1

* The correlation is significant at the 1% level. ** The correlation is significant at the 5% level.
Source: Research data.

According to Table 3, there is a correlation between dependent and independent variables. The major results showed that the market performance measured by the PER, PCD and Tobin Q index is positively and significantly related to External Social Investments (ESI). This result was somehow expected, since companies that disclose in their sustainability reports investments in CSR actions, consequently tend to present a higher market performance.

Regarding the correlation between the independent variables, it is observed that the variables of internal social investments (ISI) and environmental investments (EI) showed a positive and significant correlation with the size of the company, which reveals that larger companies seek the disclosure of its CSR-oriented practices. However, none of the correlations was strong enough to indicate multicollinearity problems between the independent variables analyzed in the research.

4.2 Analysis of the relationship between CSR and Market Performance

The panel data regression model used for the five models analyzed was the fixed effects model, as the LM Breusch-Pagan and the Hausman tests were significant at the 5% level. Table 4 presents the results of the panel data regression analysis of all equations (1 to 5), considering all companies in the sample. Then, a dummy variable, called CSI dummy, was added to the models to identify whether the fact that the company is listed on a Corporate Sustainability Index and still disclose information on its CSR practices tends to positively impact its performance market share.

Table 4 - **Effects of CSR (Internal, External and Environmental) on market performance**

Variables	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects
	PER (1)	**PBV (2)**	**PSR (3)**	**PCD (4)***	**Tobin's Q (5)***
	Coefficient	**Coefficient**	**Coefficient**	**Coefficient**	**Coefficient**
CSR (ISI)	-276.89	-166.05	-149.24	-0.978	-189.45
CSR (ESI)	131.20	-187.51	-163.01	3.581	139.71**
CSR (EI)	243.50	141.03	-118.55	-132.79	791.19
SIZE	-186.83	-24.75	-20.41	0.073*	2.37**
LEVERAGE	-3.637	-1.715	-1.229	0.048*	0.227**
R *Within*	0.2123	0.067	0.095	0.563	0.173
Test F	0.0000*	0.0000*	0.0000*	0.0000*	0.0000*
Breusch-Pagan	Sig X² 0.0002*	Sig X² 0.0001	Sig X² 0.0000*	Sig X² 0.0012*	Sig X² 0.0012*
Chow	Sig. F 0.0000*	Sig. F 0.0000*	Sig. F 0.0000*	Sig. F 0.0000*	Sig. F 0.0000*
Hausman	Sig. X² 0.0000*	Sig. X² 0.0020	Sig. X² 0.0002*	Sig. X² 0.0001*	Sig. X² 0.0001*
N. observations	369	369	369	369	369

* Significance at the 1% level. ** Significance at the 5% level.
Source: Research data.

Table 4 reveals the main impact of Brazilian companies' investments in internal, external, and environmental CSR on market performance. The coefficients of the internal social indicators (CSR - ISI) and environmental indicators (CSR - EI) were not shown to be related to any of the market performance variables, thus not supporting the hypothesis that internal and environmental CSR practices positively affect the market performance of Brazilian companies (H_1 and H_3).

Investments in external CSR were significantly and positively related to the market performance of Brazilian companies as measured by Tobin's Q. These results corroborate the findings by Kang et al. (2010) and Yoon and Chung (2018), as they analyzed CSR also individually, that is, the impacts of internal, external, and environmental CSR on the market value of companies. In addition to these studies, the studies by Choi et al. (2010), Kim and Kim (2014), Gao and Zhang (2015), Cahan et al. (2016), Nekhili et al. (2017), Wang and Sarkis (2017), Ioannou and Serafeim (2017), Han et al. (2018), Feng et al. (2018), Kim et al. (2018), Bae et al. (2019), Suganthi (2019), Lin et al. (2019) and Kwon and Lee (2019), also corroborate the results of the present research, since they found a positive relationship between CSR and market performance in the most diverse contexts and countries.

These results allow us to accept the hypothesis that external CSR practices positively influence the market performance of the companies in the sample (H2). These results indicate that companies that have actions aimed at society, as well as, allocate resources to improve society are rewarded with an increase in their market value. This relationship between CSR (external) and market performance (Tobin's Q), indicates that the capital market identifies value in companies' engagement in CSR practices (Choi et al., 2010, Jo & Harjoto, 2011).

The other market performance indices (PER, PBV, PSR, and PCD) were not impacted by investments in external CSR. The research by Kang et al. (2010) found a positive relationship between CSR and the PER market performance index in a hotel context, which may explain the divergence of the results with the present study.

Therefore, it is noted that CSR practices can increase the future performance of an organization, as Tobin's Q represents investors' perceptions about the future of a company and the intangible economic potential (Yoon & Chung, 2018). Besides, it represents the market performance of a

company looking towards the future, reflecting the expectations of interested parties concerning the value of a company (Kwon & Lee, 2019).

Regarding control variables, company size and financial leverage were positively related to the PCD index and Tobin's Q, which reveals that larger companies with high financial leverage have better market performance. Following, the results are presented including a CSI dummy variable, to identify whether CSR practices and the company listed on the CSI index also improve market performance.

Table 5 - **Effects of CSR (Internal, External and Environmental) on market performance - CSI inclusion**

Variables	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects	Fixed Effects
	PER (1)	PBV (2)	PSR (3)	PCD (4)*	Tobin's Q (5)
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
CSR (ISI)	-241.62	-286.03	-204.71	-1.299	-117.04
CSR (ESI)	124.23	-127.17	-62.89	-2.132	160.95**
CSR (EI)	156.21	-187.28	-64.53	-128.33	193.19
CSI *dummy*	57.97	-45.79	-24.46	-0.011	5.95*
SIZE	-92.79	-20.57	-0.075	0.072	2.907*
LEVERAGE	-8.99	-1.77	-1.259	0.049	0.234*
R *Within*	0.132	0.091	0.113	0.572	0.251
Teste F	0.0001*	0.0000*	0.0002*	0.0010*	0.0000*
Breusch-Pagan	Sig X^2 0.0004*	Sig X^2 0.0001	Sig X^2 0.0000*	Sig X^2 0.0012*	Sig X^2 0.0003*
Chow	Sig. F 0.0000*	Sig. F 0.0000*	Sig. F 0.0000*	Sig. F 0.0010*	Sig. F 0.0000*
Hausman	Sig. X^2 0.0000*	Sig. X^2 0.0002	Sig. X^2 0.0002*	Sig. X^2 0.0000*	Sig. X^2 0.0001*
N. observation	369	369	369	369	369

* Significance at the 1% level. ** Significance at the 5% level.
Source: Research data.

According to the results presented in Table 5, it is noted that the additional analysis confirmed the premise that companies that disclose information on investments in external CSR and that are listed in the CSI index are also positively related to market performance, in the case of this research measured by Tobin's Q. Also, it is noted that there was an increase in the explanatory power of the model (5), with the inclusion of the dummy CSI variable, when compared to the model (5) in Table 4, which reveals that the fact that the companies are listed in the corporate sustainability index, consequently tends to improve its market value. These results suggest that companies that disclose information about CSR in their reports and that are listed in the CSI index have better market performance when compared to companies that only disclose information about CSR in their sustainability and annual reports.

Among the justifications for the results found in the present research, Kao et al. (2018), as the authors address that investments in CSR have positive effects on market performance, as companies have relationships with different stakeholders (government, competitors, consumers, environmental advocates). In this way, an increase in investments with CSR tends to improve relations with the most diverse stakeholders, which can reduce opportunity costs and also increase the companies' market value (market performance) and their financial performance.

These results also confirm the statement by Feng et al. (2018), as the authors address that CSR has a positive effect on shareholder wealth, as it aims to maximize value for stakeholders. This

positive relationship occurs, therefore, as the interests of all interested parties in companies that invest in CSR are more aligned compared to companies that have low disclosure of their CSR practices.

4.3 Discussion of Results

In this study, we sought to explore the complex relationship between CSR and the market performance of Brazilian companies. The major results revealed that investments in external CSR positively influence the market performance of Brazilian companies as measured by Tobin's Q. Besides, the listing on the CSI index also positively influences the market value of the companies analyzed. Among the justifications for such results, Costa et al. (2018), as they address that companies that develop activities in more competitive markets, such as the case of publicly traded companies in Brazil, have greater incentives to disclose socioenvironmental information.

In this way, direct initiatives with internal stakeholders (employees, managers, owners), as well as initiatives with environmental preservation were not effective in increasing market performance, but external initiatives (contributions to education, health, culture, sports, leisure, among others) explained the market performance of the Brazilian companies analyzed. In this sense, it is noted that the concerns of companies are increasingly concentrated on social issues while aiming to maximize the performance of the company to satisfy interested parties and develop socially responsible actions that bring benefits to society (Rodriguez- Fernandez, 2016). Thus, the external CSR of companies can provide a positive signal for market assessments carried out by investors (Yoon & Chung, 2018).

These results are consistent with the stakeholder theory, as companies' efforts to communicate their CSR practices in reports represent opportunities to meet the demand for information from market participants (shareholders) (Nekhili et al., 2017). CSR is also increasingly on the agenda in companies for its ability to increase competitiveness, which motivates researchers to investigate whether CSR influences business performance (Maqbooln & Zameer, 2018). To this end, disclosures about CSR can reveal new market opportunities related to sustainability or even good relations with employees and other stakeholders, which consequently will increase expectations of future cash flows and better market performance (Tobin's Q) (Cahan et al., 2016).

The results also suggest that managers use the company's engagement with CSR practices to resolve conflicts between stakeholders and thus maximize shareholder wealth, with CSR representing a positive effect on companies' market performance (Jo & Harjoto, 2011). In this way, integrating CSR strategies with the key businesses of the companies is essential for the engagement of all stakeholders and the maximization of shareholder value (Hasan et al., 2018).

Given the importance presented of CSR practices, Rezaee et al. (2019), address that CSR requires companies to take initiatives to promote social good beyond their own interests. Thus, CSR should be an integral part of companies' processes to influence strategic and operational decision-making (Kwon & Lee, 2019). It should be noted that CSR has received considerable attention in the contemporaneity of policymakers, regulators, the business community and investors, and is expected to remain the main theme for the coming decades (Rezaee et al., 2019), given its impacts positives in the market performance of the Brazilian companies analyzed, as well as companies from other countries, as discussed in this study.

5 FINAL CONSIDERATIONS

Based on the objective of analyzing the relationship between Corporate Social Responsibility and the market performance of Brazilian companies, the results revealed that only external CSR practices, aimed at society, have positive impacts on the market performance measured by Tobin's Q. Another important factor is that the company is listed on the Corporate Sustainability Index (CSI), as this variable also had positive impacts on Tobin's Q. Such results reveal the importance for companies to disclose information of a socioenvironmental nature in their sustainability reports, given the positive effects of this information on the market value.

It is concluded that in emerging markets, as Brazil can be considered, CSR practices over the years are being incorporated by companies, however, greater dissemination of these practices to society is necessary. Besides, the disclosure of these practices benefits companies, as they have a positive impact on their market value, thus attracting more investors, aiming at the growth of the organization as a whole.
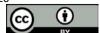
These results contribute to companies' strategic decision making, as they provide evidence that investments in CSR (internal, external, and environmental) have the greatest impact on the market performance of Brazilian companies. Regarding the corporate finance area, this research contributes towards revealing that there are different ways of measuring market performance and that CSR impacts the companies' market performance, which in a way adds to this literature the analysis corporate CSR practices and their impact on corporate finance. This research also contributes to the academic and professional debate on the theme analyzed from the survey and interpretation of the impacts of CSR on the market performance of companies in Brazil.

Regarding companies, the results of this research revealed important implications for strategic managers, because, considering the impact of CSR and the CSI index on companies' market value (Tobin's Q), they should start paying special attention to its Corporate Social Responsibility practices, as well as adapting its conduct so that it is possible to be included in the CSI index. In this sense, CSR practices should not be addressed in companies as an optional activity, but should be integrated into the company's strategy, because when this occurs, they tend to achieve better performance, both financially and in the market (Maqbooln & Zameer, 2018).

Thus, this research provides insights for administrators, intending to renew the company's business philosophy and turn more attention to issues of a social and environmental nature, given its positive impacts on the market performance of Brazilian companies. Therefore, this research provides practical implications for managers to pay attention to implementing different CSR practices, not only focusing on external issues but also on internal and environmental issues, as they can jointly improve companies' results.

The findings of this research also have implications for policymakers and regulators, as the development of legislation so that organizations are more committed to internal, external, and environmental issues is the key to the success of companies. According to Rezaee et al. (2019), investors see investment in CSR as adding value and improving the quality of earnings, thus contributing to the decision making and sustainability of companies. To this end, management must develop and maintain programs aimed at CSR in companies.

Although this research has revealed the importance of disseminating external CSR practices to increase market performance, this study has some limitations that can serve as opportunities for further studies. This research was developed with Brazilian companies that contained all the information in the analyzed period about the researched theme, thus, the results cannot be generalized for all Brazilian companies. To improve the external validity of the study, it is suggested to replicate

this research in different sectors of companies, focusing on Tobin's Q and other financial variables.

Also, it might exist mediating variables or moderating variables that were not included in the study, but that can help explain the relationship between CSR and market performance. Thus, it is suggested that other aspects are also analyzed, such as the economic conditions of the country (Lee et al., 2013). Despite these limitations and recommendations for future studies, it is believed that this study helped to explain the complex relationship between CSR and market performance.

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Thanks

AUTHORS

1. Larissa Degenhart

PhD in Accounting and Administration from Regional University of Blumenau (FURB) and Teacher at Federal University of Santa Maria (UFSM). Santa Maria, Rio Grande do Sul (RS), Brazil
E-mail: lari_ipo@hotmail.com
ORCID: https://orcid.org/0000-0003-0651-8540

2. Mikaéli da Silva Giordani

PhD student in Accounting and Administration from Regional University of Blumenau (FURB). Blumenau, Santa Catarina (SC), Brazil
E-mail: mikagiordani@hotmail.com
ORCID: https://orcid.org/0000-0002-4871-7858

3. Ismael Alan Halberstadt

Master in Business Administration from Federal University of Santa Maria (UFSM). Santa Maria, Rio Grande do Sul (RS), Brazil.
E-mail: ismaah@hotmail.com
ORCID: https://orcid.org/0000-0002-5418-3995

4. Cristiano Sausen Soares

PhD in Accounting Sciences from Federal University of Santa Catarina (UFSC) and Teacher at Federal University of Santa Maria (UFSM). Santa Maria, Rio Grande do Sul (RS), Brazil
E-mail: cristianocontador@hotmail.com
ORCID: https://orcid.org/0000-0002-6427-8699

5. Vinícius Costa da Silva Zonatto

PhD in Accounting and Administration from Regional University of Blumenau (FURB) and Teacher at Federal University of Santa Maria (UFSM). Santa Maria, Rio Grande do Sul (RS), Brazil
E-mail: viniciuszonatto@gmail.com
ORCID: https://orcid.org/0000-0003-0823-6774

Contribution of authors.

Contribution	[Author 1]	[Author 2]	[Author 3]	[Author 4]	[Author 5]
1. Definition of research problem	√			√	
2. Development of hypotheses or research questions (empirical studies)	√				
3. Development of theoretical propositions (theoretical work)					
4. Theoretical foundation/Literature review	√				
5. Definition of methodological procedures	√				
6. Data collection	√	√	√	√	
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10. Manuscript writing	√				
11. Other (please specify)					