BBR. Brazilian Business Review
ISSN: 1808-2386
ISSN: 1807-734X
Fucape Business School

Pereira, Anderson Felipe Aedo; Stocker, Fabrício; Mascena, Keysa Manuela Cunha de; Boaventura, João Maurício Gama

Corporate Social Performance and Financial Performance in Brazilian Companies: Analysis of the Influence of Disclosure

BBR. Brazilian Business Review, vol. 17, no. 5, 2020, September-October, pp. 540-558
Fucape Business School

DOI: https://doi.org/10.15728/bbr.2020.17.5.4

Available in: https://www.redalyc.org/articulo.oa?id=123064464004

How to cite
Complete issue
More information about this article
Journal's webpage in redalyc.org

Scientific Information System Redalyc
Network of Scientific Journals from Latin America and the Caribbean, Spain and Portugal
Project academic non-profit, developed under the open access initiative

BBR
BRAZILIAN BUSINESS REVIEW

Corporate Social Performance and Financial Performance in Brazilian Companies: Analysis of the Influence of Disclosure

Anderson Felipe Aedo Pereira[1]
anderson.fpereira@b3.com.br | 0000-0002-9170-5246

Fabrício Stocker[1]
fabriciostocker@usp.br | 0000-0001-6340-9127

Keysa Manuela Cunha de Mascena[2]
keysamascena@unifor.br | 0000-0002-0844-500X

João Maurício Gama Boaventura[1]
jboaventura@usp.br | 0000-0003-3070-2153

ABSTRACT

The relationship between Corporate Social Performance (CSP) and Corporate Financial Performance (CFP) has been widely tested in the international context; however, there are nuances that have not been fully explained, such as the possible influence of socio-environmental disclosure and studies in specific contexts, such as the Brazilian one. In order to contribute evidence on the direction of the relationship and the presence of moderator variables, this paper aims to analyze the CSP-CFP relationship, investigating if social disclosure moderates this relationship. The research sample is composed of companies that were part of the Corporate Sustainability Index (ISE) in the period from 2010 to 2013 and the hypothetical relationships which were tested by panel data regression models. The results show that there is a positive and significant relationship between CSP and CFP in both directions of causality; however, it was found that the disclosure of sustainability reports does not intensify or alter the relationship between these performance variables.

KEYWORDS

Social Performance; Financial Performance; Corporate Sustainability Index; Social Disclosure; GRI

[1]Universidade de São Paulo, São Paulo, SP, Brasil

[2]Universidade de Fortaleza, Fortaleza, CE, Brasil

Received: 04/30/2019.
Revised: 09/11/2019.
Accepted: 02/29/2020.
Published Online: 07/27/2020.
DOI: http://dx.doi.org/10.15728/bbr.2020.17.5.4

THIS ARTICLE IS DISTRIBUTED UNDER THE TERMS OF THE CREATIVE COMMONS ATTRIBUTION 4.0 INTERNATIONAL LICENSE

1. INTRODUCTION

Performance studies bring into focus the discussion regarding the relationship between Corporate Financial Performance and Corporate Social Performance, as well as the causality between these two. This discussion has received more emphasis in recent years given the acceleration of Corporate Social Responsibility practices and the importance of the sustainability dimension in organizations. The relationship between Corporate Financial Performance (CFP) and Corporate Social Performance (CSP) has been analyzed by various studies, such as those of Waddock and Graves (1997), Orlitzky, Schmidt, and Rynes (2003), Chang, Oh, and Messersmith (2013), Garcia, Sousa-Filho, and Boaventura (2018), and Fiandrino, Devalle, and Cantino (2019); however, some propositions supported by different theoretical positions still lack empirical studies, hence the research proposed in this paper.

The literature discussing the relationship between CSP and CFP has advanced in the sense of empirically testing the causality relationship, with many studies in the international context testing whether the relationship is positive, negative, or neutral. Although many studies have tested the direct relationship between CSP and CFP and most have found this relationship to be positive, to understand this complex and multidimensional phenomenon it is necessary to evaluate the investigation of different contexts and related variables that can provide support in explaining the relationship. This study in particular ratifies the relationship between CSP and CFP and seeks to explore nuances that have not been fully explained, such as the possible influence of socio-environmental disclosure in this relationship in the context of Brazilian organizations.

Within this scenario, what still remains unknown and what this research proposes to answer is: what is the influence of socio-environmental disclosure on corporate performance? In samples of companies in developing social and economic contexts, such as that of Brazil, can similar or different results be found from those of other international studies? How can Stakeholder Theory be used to add to and discuss this causality relationship and organizational performance?

To answer the questions raised, this study aims to analyze the moderating effect of disclosure in the CSP-CFP relationship, considering both directions of the relationship. The study method is applied in a sample of companies listed on the B3 (*Brasil, Bolsa, Balcão*) exchange that formed part of the Corporate Sustainability Index (ISE) in the period from 2010 to 2013. The index served as the basis for the data collection and measurement of CSP, while CFP was obtained by the market value of the companies collected from the Economática® database. The analyses were obtained through hypothesis tests in panel data regression models and fixed and random model estimations.

The results of the research indicates that there is a positive and significant relationship between CSP and CFP in both directions of causality; that is, there is evidence that social performance explains financial performance, and that financial performance explains social performance. Regarding the moderating effect of disclosure, the empirical data reveals that there is no moderation in the sample studied. Therefore, by analyzing listed companies participating in the ISE, that is, consolidated and mature companies in terms of socio-environmental management, it is possible to find that the disclosure of sustainability reports does not intensify or alter the CSP-CFP relationship in both directions of causality.

This study advances the knowledge on organizational performance and presents two main contributions. The first contribution concerns Stakeholder Theory, which supports the discussions on CSP, providing evidence that the social performance of an organization has an influence on its financial performance, a discussion that arises regarding management for stakeholders and other

topics concerning Corporate Social Responsibility, which form part of the social performance construct.

The second contribution relates to evidence about the direction of causality and the presence of moderating variables in the CSP-CFP relationship. This evidence complements the previous studies that test unilateral and direct relationships and provide evidence regarding the CSP-CFP relationship in the Brazilian context. The relevance of this research derives from it advancing the empirical analyses with the potential to delve more deeply and seek new explanations for the performance relationships, and thus provide support in advancing the theory on the topic. At the end of the paper, some limitations of the study are presented, regarding the sample and methodology employed, as well as suggestions for future studies to advance the assumptions addressed in this paper.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Organizational performance is multi-dimensional, and can be evaluated from different perspectives. The most consolidated dimension for analyzing an organization's performance is the economic-financial one, which has standardized and comparable indicators; however, another analytical dimension that has gained importance in recent decades is Corporate Social Performance. Evaluating the performance of companies and understanding what leads an organization to have superior performance to others are the aims of studies on strategy and organizations, arousing the interest not only of researchers of the topic but also of managers and practitioners.

2.1. Corporate Social Performance (CSP)

CSP is a concept that differs from CSR. CSR involves organizational practices and policies that reflect responsibility in businesses and provide social benefits (Matten & Moon, 2008). On the other hand, CSP refers to the results of the policies and practices of organizations (Clarkson, 1995). In short, CSR deals with activities and CSP deals with results (Salazar et al., 2012). For Carroll (1979, p. 504), CSP "requires that 1) social responsibility can be evaluated, 2) social questions are identified, and 3) a philosophical response is chosen." It is observed that the literature on CSP relates to CSR, as an input, and to the assessment of stakeholders, as an output. This study seeks to address CSP as an input and CFP as an output.

Considering that CSP aims to evaluate results, it is important to identify ways of measuring it. The studies primarily consider environmental, social, and governance (ESG) databases, reputational indices, sustainability reports, and questionnaires (Waddock & Graves, 1997; Boaventura et al., 2012; Xie et al., 2019). It is important for the CSP measurement to evaluate the effectiveness and efficiency of the programs developed by organizations and not only inputs, such as the quantity of hours dedicated to voluntary work (Salazar et al., 2012) or only a part of the CSR practices (Fiandrino, Devalle, & Cantino, 2019).

This study intends to measure CSP using secondary data obtained by collecting data from GVces for the composition of the ISE portfolio of the B3. Adhesion to the ISE indicates that the company is concerned about adopting social responsibility practices, and presenting high social performance, legitimacy, and corporate reputation (Crisóstomo & Oliveira, 2016). Therefore, by analyzing performance in the ISE it is possible to find evidence regarding the results of social programs and practices, which reflects the concept of CSP as proposed by Salazar et al. (2012).

2.2. Corporate Financial Performance (CFP)

CFP is generally measured in three ways: market measures (return for the investor), accounting measures (accounting return), and a percentage measure (survey) (Orlitzky et al., 2003). The market measures gauge CFP using share price or the appreciation in it, reflecting investors' satisfaction. Alternatively, there are some indicators used to measure such performance, such as return on assets (ROA), return on equity (ROE), or earnings per share (EPS), indicators that capture internal financial efficiency in some way. The accounting measures reflect the organization's internal efficiency, based on managers' decisions and policies. Finally, the survey measure is based on subjective estimates for financial performance (Orlitzky et al., 2003).

The literature on measuring CFP is more consolidated than that on measuring CSP. In the literature that covers social performance, there is no definition of how to evaluate the fulfillment of each stakeholder's demands (Fiandrino, Devalle, & Cantino, 2019); on the other hand, in the literature that covers financial performance, there is a greater range of possible ways of measuring such performance (Boaventura et al., 2012; Hategan, Sirghi, Curea-Pitorac, & Hategan, 2018).

2.3. Direction of the Relationship between CSP and CFP

The main interest of the researchers who have analyzed these constructs has been to evaluate whether one performance dimension has an impact on the other, that is, to analyze the CSP-CFP relationship. Analyzing this relationship has gained importance and aroused interest in studies that consolidated the empirical studies that have tested the CSP-CFP relationship, such as the analysis of 127 publications by Margolis and Walsh (2003) and 58 empirical studies by Boaventura, Silva, and Bandeira de Mello (2012), and other studies whose interest has been in understanding the CSP-CFP relationship and its impact, such as that of Hasan, Kobeissi, Liu, and Wang (2018), who investigated American companies, that of Danso, Adomako, Amankwah-Amoah, Owusu-Agyei, and Konadu (2019), on African companies, that of Hou (2019), on Asian companies, and that of Mukherjee & Nuñez (2019), who investigated Indian companies.

To understand the causality relationship between CSP and CFP it is primarily important to understand the theories that support the objective functions of companies, under the lens of each one of those constructs. CSP is supported by Stakeholder Theory and CFP by the Theory of the Firm. For Stakeholder Theory, the objective function of organizations is to coordinate stakeholders' interests. Stakeholders are understood to be the individuals or groups that can affect the obtainment of the organization's objectives or that are affected by the process used to achieve those objectives (Freeman, 1984). Considering this definition and the objective function of organizations, companies should simultaneously attend to shareholders and society, for example, as they are individuals or groups that are affected by the decisions of the organization's management.

On the other hand, the Theory of the Firm – developed in the context of the birth of economic science in the 18th century – proposes that the objective function of organizations is to maximize profits, as well as affirming the other microeconomic theories and maximization theory (Boaventura, Cardoso, Silva, & Silva, 2009).

Waddock and Graves (1997) studied what the causality relationship was between financial and social performance and used two theories to explain this phenomenon: Good Management Theory and Slack Resource Theory. Slack Resource Theory assumes that the better an organization's financial performance, considering the availability of financial and other resources, opportunities are created for the company to invest in social performance, such as benefits for the community, employment relations, and development; in return, the company obtains a competitive advantage in relation to its long-term image, reputation, and cost savings (Nason, Bacq, & Gras, 2018).

The premises of Slack Resource Theory were primarily developed from the 1980s onward and various studies have sought to correlate excess resources with corporate performance (Daniel, Lohrke, Fornaciari, & Turner Jr., 2004). On the other hand, Good Management Theory states that when a company is perceived by its stakeholders as having a good reputation there will be greater opportunities for superior financial performance. These opportunities will be created through market mechanisms, such as cost reductions for raising capital, among others (Fiandrino, Devalle, & Cantino, 2019).

Having laid out the theoretical basis for each construct, it is possible to observe that there is greater alignment between CSP and the objective function proposed by Stakeholder Theory and, on the other hand, the company's objective function proposed by the Theory of the Firm is more aligned with CFP (Boaventura et al., 2009). Considering the arguments regarding the direction of causality, this study tests two hypotheses:

- **H1**: Corporate Social Performance (CSP) has a positive relationship with Corporate Financial Performance (CFP)
- **H2**: Corporate Financial Performance (CFP) has a positive relationship with Corporate Social Performance (CSP).

2.4. Legitimacy Theory

To understand how the voluntary disclosure of information on the part of the managers of organizations works, prior knowledge of Legitimacy Theory is important. Suchman (1995, p. 574) defines legitimacy as "a generalized perception or assumption that the actions of any entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions."

There are various reasons that motivate organizations to seek legitimacy. The efforts of managers to legitimize their practices depend on the results that those actions promote. There are two dimensions that concern this search for legitimacy: (a) the continuity and credibility aspect and (b) the distinction between the search for passive support and active support (Nason, Bacq, & Gras, 2018).

Based on the continuity and credibility dimension, Suchman (1995) indicates that the elements of this aspect influence the stability and understanding of the organization's activities, but not to the same extent (Suchman, 1995, p. 574). By increasing the stability and understanding of organizational activities, legitimacy enables more resources to be captured by making the organization more reliable in the eyes of its stakeholders (Garcia, 2016; Nason, Bacq, & Gras, 2018).

On the other hand, in the search for support dimension, Suchman (1995) states that the type of support sought by the organization will determine the level of legitimacy that it will adopt – high or low. Thus, it is understood that, according to the type of support that the organization seeks, the degree of disclosure will be high or low, since legitimacy and disclosure are related.

Legitimacy can be classified into three types: moral, pragmatic, and cognitive. Moral legitimacy "reflects a positive nominal evaluation of the organization and its activities" (Suchman, 1995, p. 579); pragmatic legitimacy reflects the organization's immediate interests in the eyes of its spectators, where these interests often imply exchanges between both; and finally, cognitive legitimacy "involves the affirmative support for an organization or mere acceptance of the organization as necessary or inevitable" (Suchman, 1995, p. 582).

It is possible to identify that the disclosure of information is an instrument to legitimize organizational practices, as is already highlighted in the studies on CSR practices and sustainable development (Xie, Nozawa, Yagi, Fujii, & Managi, 2019). Some institutional theories propose that corporate governance mechanisms, including the disclosure of information, promote legitimacy gains (Hamilton & Biggart, 1988; Garcia, 2016; Nason, Bacq & Gras, 2018; Mukherjee & Nuñez, 2019). The disclosure of information on social performance is a way of giving visibility to the actions of organizations in order to legitimize their practices, in the light of Legitimacy Theory (Khan, Myttakin, & Siddiqui, 2012).

Based on the studies on legitimacy and its theory, it is possible to affirm that the greater the need to legitimize organizational actions and practices, the greater the voluntary disclosure practiced by organizations will be (Fiandrino, Devalle, & Cantino, 2019). Thus, this study seeks to analyze the impact of the disclosure of information on the relationship between financial performance and social performance.

2.5. Moderation by Social Disclosure in the CSP-CFP Relationship

Besides evaluating the direction of causality, the studies have made advances in analyzing the variables that could moderate the relationship. Different moderating variables have been tested, such as innovation and the level of differentiation of the industry (Hull & Rothenberg, 2008), strategies for engagement in social responsibility (Tang, Hull, & Rothenberg, 2012), ownership concentration (Peng & Yang, 2014), corporate governance (Fiandrino, Devalle, & Cantino, 2019), and ESG (environmental, social, and governance) actions (Xie, Nozawa, Yagi, Fujii, & Managi, 2019). A systematic analysis of the publications that have analyzed the variables that moderate the CSP-CFP relationship was carried out by Grewatsch and Kleindienst (2017), who examined a series of studies that have tested variables that could moderate this relationship. However, the authors considered social disclosure as a way of measuring performance in sustainability or social performance, and did not make advances in analyzing disclosure as a variable that moderates the CSP-CFP relationship.

Social disclosure is an important moderating variable in the CSP-CFP relationship and is supported by Legitimacy Theory (Khan, Myttakin, & Siddiqui, 2012). It is considered that disclosing information of a social and environmental nature is a way for managers of organizations to legitimize their Corporate Social Responsibility (CSR) practices and actions and, consequently, there are reflections in CFP. Moderation by disclosure was investigated by Garcia, Sousa-Filho, and Boaventura (2018), who found a positive moderating effect of disclosure in the relationship between CSP and CFP. Moderation by disclosure was found considering CSP in relation to employees and to suppliers, that is, considering CSP in a disaggregated way.

One of the arguments for the relationship between social disclosure and CSP is that companies with superior socio-environmental performance have a greater incentive to disclose their actions and commitments, which is an assumption defended by Verrecchia (1983) and corroborated by Lang and Lundholm (1993) and Mukherjee and Nuñez (2019). Another argument is that with disclosure companies seek to improve the perception of stakeholders regarding the company, thus avoiding possible risks and future social costs (Dye, 1985, Hategan et al., 2018, Hou, 2019).

Some studies that have empirically analyzed the relationship between social and voluntary disclosure and performance have found a positive relationship, such as those of Clarkson, Li, Richardson, and Vasvari (2008), Dawkins and Fraas (2011), Silva-Gao (2012), and Gallego-

Álvarez (2012). Other studies have found a negative relationship, such as those of Sutantoputra, Lindorff, and Johnson (2012) and Cho, Guidry, Hageman, and Patten (2012). Therefore, the empirical investigation of the relationship between social disclosure and performance is not yet consolidated (Clarkson et al., 2008; Garcia et al., 2018). However, it is argued that when a company has high CSP and provides communication of and accountability for its performance through disclosure, it can obtain CFP (Garcia et al., 2018).

Regarding financial performance, Healy and Palepu (2001) argue that there are six forces that motivate managers to voluntarily disclose information to the market, these being: transactions in the capital market, disputes over corporate control, stock compensation, litigation, proprietary costs, and talent management signaling. For the purposes of this study, CFP is measured using market value, similarly to in the studies of Berman, Wicks, Kotha, and Jones (1999) and Choi and Wang (2009). It can be stated that voluntary disclosure may be associated with financial performance since the disclosure of good information about an organization can attract or retain shareholders and investors in the company, resulting in greater market performance. Therefore, it is argued that if the company has high CFP and practices for disclosing to investors through social disclosure, it has a greater commitment to practices geared toward its stakeholders and society, thus increasing its CSP. Considering these arguments, in order to evaluate the moderating effect of disclosure on the relationship between CSP and CFP, the following hypotheses will be tested:

- **H3**: The presence of disclosure moderates the CSP-CFP relationship.
- **H4**: The presence of disclosure moderates the CFP-CSP relationship.

3. METHODOLOGIAL PROCEDURES

This study can be classified as descriptive and explanatory. The method used was quantitative, considering that it relied on statistical techniques to test the questions previously presented.

To achieve the research objectives of this study, the Corporate Sustainability Index of the B3 was analyzed. The index "measures the average return on a theoretical portfolio of stocks of open companies listed on the B3 with the best sustainability practices" (B3, 2017).

The calculation methodology uses the Center for Sustainability Studies of the FGV (GVces) as a technical partner and is composed of a quantitative analysis (score in the questionnaire), qualitative analysis (verification of documents that prove practices and actions carried out by the organizations), and the evaluation and decision of the CISE (the ISE deliberative council, composed of representatives of 11 national capital market institutions and led by the B3) (B3, 2017).

The sample is composed of the companies that answered the ISE questionnaire in 2010 (to compose the 2010/2011 portfolio), 2011 (to compose the 2011/2012 portfolio), 2012 (to compose the 2012/2013 portfolio), and 2013 (to compose the 2013/2014 portfolio). In Figure 1, it is possible to verify the performance of the ISE portfolio as of 11/16/2006, comparing with the IBOVESPA – the main portfolio of the B3 – as of the same period (base 100 = 11/16/2016). It is observed that the performance of the index was better than that of the IBOVESPA.

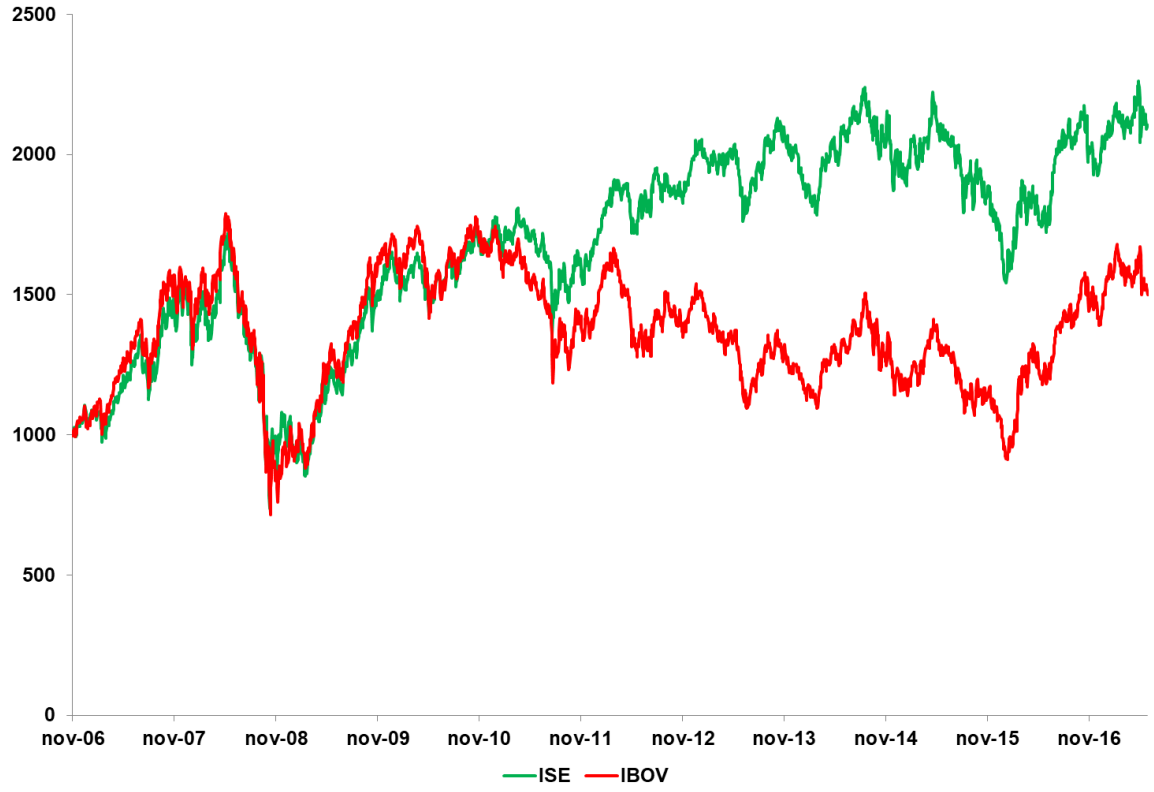

Figure 1. Performance of the ISE portfolio vs. IBOV (B3, 2017).

3.1. Measurement of the Constructs

Considering the hypotheses of this study, the research model can be represented by Figure 2.

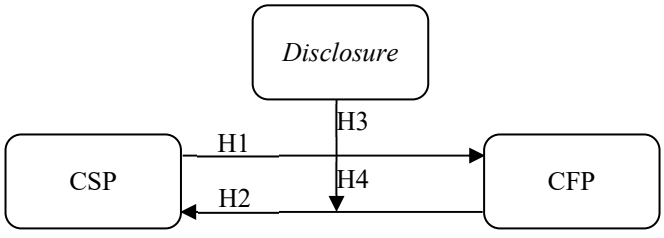

Figure 2. Research model.

The CSP was obtained by the score received by the company for performance in the social dimension of the sustainability index. It is important to highlight that the CSP in this study is the result of a methodology already consolidated in the market and that has credibility, according to the financial performance of the ISE portfolio presented in Figure 1. The companies that answer the ISE questionnaire are first subjected to a quantitative analysis, as previously mentioned. This analysis scores each answer to the question options related to the indicators and criteria of the dimension of the questionnaire. In the 2013 version of the ISE questionnaire, for example, the Social Dimension (SOC) has 14 indicators grouped into 4 criteria. The answers to the questions related to each indicator add up points to compose the indicator, which has a total weight pre-

defined by the B3 and GVces. The total sum of the indicator and criteria scores consists of the score attributed to the dimension, used in this study as a proxy for CSP. In the case of Corporate Financial Performance (CFP), this was measured by the market value of the companies, extracted from the Economática® economic-financial data platform.

The disclosure variable is classified as a dummy variable. To collect this information, the Sustainability Disclosure Database platform, managed by the Global Reporting Initiative (2017), was used. The GRI reports disclosed by the companies are important tools for stakeholder engagement and for communicating social performance, indicating how much the company discloses its efforts to attend to the interests of its stakeholders (Mascena, Fischmann, & Boaventura, 2018; Stocker et al., 2020). Based on the reports disclosed, 1 or 0 were added for the companies in the sample, with the data being collected for 2009, 2010, 2011, 2012, and 2013. Over the course of the research, a sample of 69 firms that answered the ISE questionnaire was considered. Chat 1 summarizes the measurement of the variables in this study.

Chart 1
Measurement of the constructs

Construct	Conceptual definition	Author(s)	Operational definition
CSP	Refers to the results of the policies and practices of the corporations, which reflect the responsibility of the business in relation to various social goods.	Salazar, Husted, & Biehl (2012)	Social Dimension of the Corporate Sustainability Index
CFP	The firms seek long-term maximization of company market value, a result of the capacity to generate cash flow.	Jensen (2001)	Market value
Disclosure	Decision to disclose or withhold information.	Verrechia (1983)	Dummy variable (1 for disclosure of the GRI report and 0 for non-disclosure)

Two control variables were chosen that will be incorporated into the model: the company's size, measured by the natural logarithm of the firm's total assets, and the operating sector. To incorporate the operating sector into the model, dummy variables were used taken from the classifications defined by NAICs and available in Economática®. Total assets were also taken from the Economática® platform.

3.2. Data Analysis Method

The hypotheses were tested through panel data regression models. Estimations were carried out via fixed and random models, using the Hausman test to decide which model is most appropriate for the sample. In the Hausman test, if the null hypothesis is rejected, fixed effects is chosen. In the sample studied, the Hausman test was not rejected in three of the models estimated and, therefore, random effects estimation was chosen, using the generalized least squares (GLS) method as the most suitable one for the sample (Fávero & Belfiore, 2017).

Four models were estimated:

$$CFP_{it} = \beta CSP_{it} + bSize_{it} + bSector_{it} + bYear_{it} + e_{it} \quad (1)$$

$$CSP_{it} = \beta CFP_{it} + bSize_{it} + bSector_{it} + bYear_{it} + e_{it} \quad (2)$$

$$CFP_{it} = \beta CSP_{it} + \beta CSPxDisclosure_{it} + bSize_{it} + bSector_{it} + bYear_{it} + e_{it} \quad (3)$$

$$CSP_{it} = \beta CFP_{it} + \beta CFPxDisclosure_{it} + bSize_{it} + bSector_{it} + bYear_{it} + e_{it} \quad (4)$$

In the four models tested, the dependent variable was defined with a one-year lag. The models were tested with the help of the Stata® software. To define the models, tests were carried out to identify outliers and influential observations. To identify possible outliers, the r standard and r student values obtained were considered, evaluated after preliminary multiple regression model tests. Absolute values above 2 indicate that the observation may by an outlier and, according to this criterion, 12 possible outliers were identified. However, besides identifying outliers it is important to identify influential observations, which would be those that actually compromise the results of the model. To identify influential observations, the Cook's distance was calculated. Analyzing the distances generated, no absolute numbers higher than 1 were found, which indicates that there are no influential observations. Thus, we chose to maintain the number of observations collected.

After testing the panel data regression models, normality tests were carried out for the residuals in Models 1 and 2 (with CFP as dependent and with CSP as dependent). The Shapiro-Wilk and Shapiro-Francia tests were employed (Fávero & Belfiore, 2017). The tests obtained rejected the non-normality of the residuals hypothesis, which implies a limitation of this research.

4. ANALYSIS AND DISCUSSION OF THE RESULTS

The total research sample is formed of 69 companies, although the quantity of observations and companies varies in the models depending on the data available. In 68% of the observations it was found that the companies published GRI reports in the year, which indicates that the sample has a high level of social disclosure. The quantity of companies per sector is presented in Table 1.

Table 1
Frequency by operating sector

Sector	n
Business administration	1
Medical and social care	1
Wholesale	1
Retail	7
Construction	1
Education	2
Electricity, gas, and water company	16
Real estate and rental of other goods	1
Manufacturing industry	17
Information	8
Mining and quarrying	1
Financial services and insurance	9
Transport and storage	4

It is observed that the greatest number of companies was classified into the manufacturing industry (24% of the sample) and electricity, gas, and water (23% of the sample) sectors, followed by the financial services and insurance sector (13% of the sample).

In an exploratory analysis, the Pearson correlations between the main research variables were also analyzed, as presented in Table 2.

Table 2
Correlation between the variables

	CFP	CSP	Disclosure	Size
CFP	1			
CSP	0.3085**	1		
Disclosure	0.1748*	0.3059**	1	
Size	0.6574**	0.4690**	0.3017**	1

†p < 0.1; *p < 0.05; **p < 0.01

It is observed that all the variables obtained a level of significance greater than 0.05. The correlation between the CSP and CFP constructs was positive (0.3085); that is, there are indications that the greater the market value, the higher the social rating of the ISE questionnaire. From analyzing the correlation between CFP and disclosure, it was observed that there is a positive correlation (0.1748), but this is smaller than the correlation between CSP and CFP. On the other hand, the correlation between CSP and disclosure was greater (0.3059). Finally, the correlations between the size control variable and the CSP and CFP variables obtained high results (the correlation between size and CSP was 0.469 and the correlation between size and CFP was 0.6574).

Thus, there is statistical evidence to affirm that there is a positive correlation between CSP and CFP; that is, the higher the market value of the companies listed in the ISE, the greater their social practices indicator. This relationship was also investigated using panel data regression analysis models, as described below.

4.1. Test of the CSP-CFP Relationship

The first panel data regression models of this study sought to test hypotheses H1 and H2. The hypotheses suggest that there is a direct relationship between CSP and CFP, which can have two types of direction of causality: greater CSP leads to greater CFP and greater CFP leads to greater CSP. In the tests, one-year lags of the dependent variable were used; that is, it was tested whether CSP explained CFP in the subsequent year as well as whether CFP explained CSP in the subsequent year. Models 1 and 2 are presented in Table 3.

It is observed that Models 1 and 2 presented in Table 3 are significant at the 0.05 level (Wald chi2 229.83 and 112.59, respectively). The results indicate that CSP as an explanatory variable has a positive and significant relationship with CFP and that, in addition, CFP as an explanatory variable has a positive and significant relationship with CSP, considering the other variables of the longitudinal models. Therefore, **H_1 is supported** (H_1: CSP has a positive relationship with CFP) and **H_2 is supported** (H_2: CFP has a positive relationship with CSP) in the sample analyzed.

The dispersion graph presented in Figure 3 presents the behavior of the sample in relation to the CFP and CSP variables.

In this research, the possible presence of outliers and influential observations was analyzed and the tests were carried out with and without the presence of possible outliers. The different tests reinforced the results reported.

Table 3
Models 1 and 2 – Relation between CSP-CFP

Dependent: CFP	Model 1		Dependent: CSP	Model 2
	Coefficent	Standard-error	Coefficent	Standard-Error
CSP	330597**	122040	–	–
CFP	–	–	9.88E-08*	4.56E-08
Size	6700048**	1618507	4.2011**	0.9872
Year_2010	4586350**	1767545	-3.5430**	0.9195
Year_2011	438008	1653175	-2.2927**	0.8650
Year_2012	1363161	1602106	0	(omitted)
Year_2013	0	(omitted)	0	(omitted)
Business administration	-11200000	19600000	31.1946*	13.2940
Medical and social care	1914314	26700000	18.5754	16.5765
Wholesale	-8053231	22900000	42.1907**	14.7512
Retail	978699	20200000	7.8639	13.5476
Construction	28000000	21000000	9.4919	12.2176
Education	401167	19500000	20.1979	13.1174
Electricity, gas, and water	3388034	20900000	20.5786	13.7026
Real estate and rental	3426781	20200000	19.7457	13.1305
Manufacturing industry	-8018355	25800000	31.4368*	16.1936
Information	15800000	26600000	23.5524	15.2796
Mining and quarrying	5605053	25900000	40.6746*	15.7463
Financial services	176000000**	26700000	0	(omitted)
Transport and storage	0	(omitted)	0	(omitted)
Constant	-111000000**	29800000	-41.5983*	20.2528
R^2 (*overall*)	0.83		0.5746	
Wald chi2	229.83**		112.59**	
Observations	223		171	
Firms	68		66	

†p < 0.1; *p < 0.05; **p < 0.01

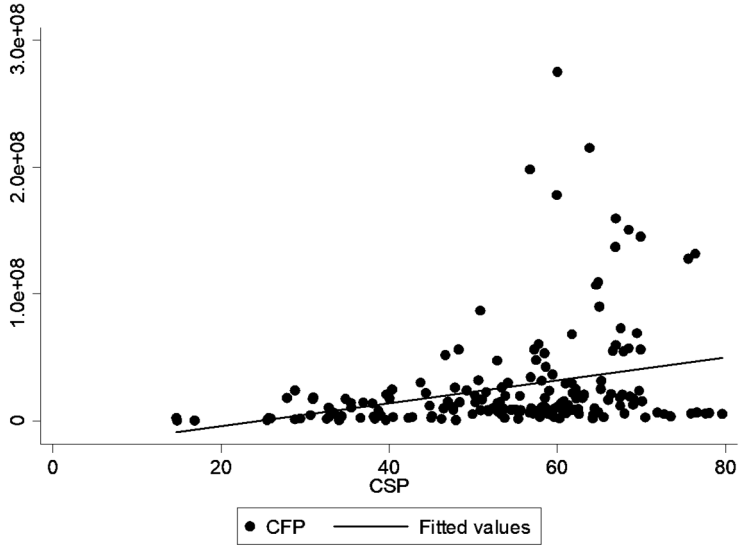

Figure 3. CFP-CSP dispersion graph.

4.2. Test of moderation by disclosure in the CSP-CFP relationship

The relationship between CSP and CFP was analyzed with the presence of disclosure as a moderator. The research model sought to alternate CSP and CFP as dependent variables and to compare the results by adding the interaction between the explanatory variable and disclosure. It is important to highlight that in all the models, size and the operating sector were used as control variables. The third and fourth panel data regression models sought to test hypotheses H3 and H4, and are presented in Table 4.

Models 3 and 4 presented in Table 4 are significant at the 0.05 level (Wald chi2 227.63 and 111.95, respectively). The moderation by social disclosure was not significant in any of the models, both with CFP as dependent and with CSP as dependent. Thus, **H3 is not supported** (H3: The presence of disclosure moderates the CSP-CFP relationship) and **H4 is not supported** (H4: The presence of disclosure moderates the CFP-CSP relationship) in the sample.

Table 4
Models 3 e 4 – Disclosure moderation

Dependent: CFP	Model 3		Dependent: CSP	Model 4
	Coeficiente	Erro-padrão	Coeficiente	Erro-padrão
CSP	322756*	125709	–	–
CFP	–	–	9.19E-08†	5.61E-08
CSPxDisclosure	10018	38991	–	–
CFPxDisclosure	–	–	7.29E-09	3.41E-08
Size	6624759**	1650089	4.2057**	0.9904
Year_2010	4546649*	1776085	-3.5690**	0.9303
Year_2011	423285	1656417	-2.3187**	0.8762
Year_2012	1386241	1607219	0	(omitted)
Year_2013	0	(omitted)	0	(omitted)
Business administration	-11000000	19700000	31.2850*	13.3413
Medical and social care	2281925	26900000	18.6971	16.6368
Wholesale	-7657959	23000000	42.3061**	14.8059
Retail	1226042	20300000	7.9723	13.5984
Construction	28400000	21200000	9.5974	12.2647
Education	654954	19600000	20.3376	13.1736
Electricity, gas, and water	3479508	21000000	20.6676	13.7507
Real estate and rental	3726100	20300000	19.8561	13.1807
Manufacturing industry	-8026887	26000000	31.5337*	16.2492
Information	16400000	26800000	23.7461	15.3529
Mining and quarrying	5589530	26100000	40.7645*	15.7998
Financial services	177000000**	26800000	0	(omitted)
Transport and storage	0	(omitted)	0	(omitted)
Constant	-110000000**	30200000	-41.7464*	20.3260
R^2 (*overall*)	0.8297		0.5749	
Wald chi2	227.63**		111.95**	
Observations	223		171	
Firms	68		66	

†p < 0.1; *p < 0.05; **p < 0.01

The summary of the results obtained for each model is presented in Table 5.

Table 5
Consolidated results of each model

	Dependent Variable	Adjusted R-square	P-value CSP	P-value CFP	P-value Disclosure	Conclusion
H1	**CFP**	0,83	0,007	Not applicable	Not applicable	There is statistical evidence to state that the **CSP explains the CFP**
H2	**CSP**	0,57	Not applicable	0,03	Not applicable	There is statistical evidence to state that the **CFP explains the CSP**
H3	**CFP**	0,82	0,01	Not applicable	0,79	There is no statistical evidence to state that **disclosure moderates the relationship between CSP and CFP**
H4	**CSP**	0,57	Not applicable	0,10	0,83	There is no statistical evidence to state that **disclosure moderates the relationship between CFP and CSP**

5. DISCUSSION

The results of this research support both types of causality relationship between CSP and CFP, Slack Resource Theory and Good Management Theory (Waddock & Graves, 1997). Slack Resource Theory assumes that the better the organization's financial performance, the more opportunities are created for the company to invest in social performance, and the more the firm obtains competitive advantage in relation to its image, reputation, and cost savings in the long run. On the other hand, Good Management Theory states that when the company is perceived by its stakeholders as having a good reputation there will be greater opportunities for superior financial performance. Evidence is observed in the sample that supports both theories.

This evidence resumes the discussion in the studies on Corporate Social Responsibility and organizational performance with regard to "doing good or doing well" that seek empirical evidence and discuss what companies do that is good and efficient (Mukherjee & Nuñez, 2019). What companies do that is good considers their ethical stance, seeking to fulfill the interests of society and relating fairly with their stakeholders. What companies do efficiently involves their decisions and strategies that have led to superior performance and effectiveness in their strategic planning (Hategan, Sirghi, Curea-Pitorac, & Hategan, 2018; Stocker & Mascena, 2019).

On the other hand, based on Legitimacy Theory (Suchman, 1995; Garcia, 2016), it was tested whether the disclosure of GRI reports reinforces the CSP-CFP relationships and no evidence was found for moderation by disclosure in the relationship. One possible explanation is that the disclosure of GRI reports does not explain high market value performance in the ISE portfolio, since the sample chosen is composed of relatively homogeneous companies in terms of a high standard of sustainability practices and disclosure of social performance. This same result is revealed by Fiandrino, Devalle, and Cantino (2019) after analyzing a particular group of companies of European countries whose CSR and governance practices are similar, and disclosure activity is mandatory and not voluntary.

This study presents different perspectives in relation to the findings of Garcia et al. (2018). First, it includes the direction of causality that considers CSP as dependent on CFP; that is, it tests Slack Resource Theory and not only Good Management Theory. This study finds evidence of both types of relationship in the Brazilian context, while Garcia et al. (2018) addressed the direction of causality of Good Management Theory and found a partially supported relationship. The relationship was partially supported because each stakeholder was studied in a disaggregated way, and the authors found a positive relationship only for performance in relation to the community and CFP, and a negative relationship for performance in relation to employees and CFP in companies in the Bloomberg database.

In this sense, Garcia et al. (2018) contribute by analyzing each one of the stakeholders separately while this study contributes by verifying in an aggregated way that actions geared toward social performance that benefit multiple stakeholders can have a synergetic impact, an important and current perspective of management for stakeholders (Tantalo & Priem, 2016). Both directions of causality analyzed reveal that the CSP-CFP relationship can generate a cyclical effect of superior social and financial performance.

Garcia et al. (2018) also partially support the moderation by disclosure hypothesis, since moderation occurs for performance with employees and suppliers and does not occur for the community. The aforementioned authors also analyzed the moderation considering only one direction of causality. The results presented in this article analyze the moderation by disclosure in both directions of causality, although no moderating effect was found in the sample analyzed.

However, the evidence shows that when only the Brazilian context of ISE companies is considered, there is no moderation by disclosure. Considering that the ISE companies are large firms that seek to maintain their reputation in relation to sustainability and CSR practices, and that they also present high performance in the financial market, disclosure may have a marginal effect on performance. This effect is better observed in more heterogeneous samples, as highlighted by Xie et al. (2019), in markets and contexts where it is even possible to perceive a different level of disclosure and consequently a smaller or bigger relationship with corporate performance in the short and long terms. In Brazil, large companies that have superior performance in CSR tend to have persistent leadership in social responsibility (Crisóstomo & Oliveira, 2016), a finding that collaborates the results of this study. From this perspective, this study also offers an empirical contribution by analyzing the Brazilian context, as although the CSP-CFP relationship has been analyzed in different countries and samples, few studies focus on a sample of Brazilian companies.

6. CONCLUSION

This study argues that the relationship between CSP and CFP is positive considering both directions of causality of the relationship, CSP affecting CFP and CFP affecting CSP. The results confirm in the sample studied that there is a positive and significant relationship between the variables considering both causality models. Market value was used to measure CFP and the social dimension of the ISE questionnaire was used to measure CSP; thus, there is statistical evidence to affirm that the greater the financial performance of the companies' stocks, the greater their practices will be that affect stakeholders, and the greater the performance in relation to their stakeholders, the greater their market value.

Regarding moderation by disclosure, the results indicate that there is no statistical evidence for stating that the presence of disclosure is capable of moderating the CSP-CFP and CFP-CSP relationships. These findings indicate that disclosure considered as disclosure of GRI reports of the ISE companies does not influence the relationship between social and financial performance.

It also warrants mentioning some limitations of the research, such as evaluating disclosure by the presence and absence of GRI report, evaluating only one measure of financial performance, and the number of observations in the period in which the data were available. An analysis with a greater number of observations over a long time period would provide more robust results and, therefore, it is suggested that the research is widened in future studies. It also warrants mentioning, as a limitation of the study, the small number of firms that compose the Corporate Sustainability Index of the B3, even though they are the companies with the most liquidity and representativeness in the country. Future studies could consider international databases and add indices that feature as a proxy for Corporate Social Performance.

It is also suggested that future studies investigate the social disclosure of companies, verifying if a greater quality or range of reports could have some influence on the relationships studied. That is, they would not focus on the disclosure or not of the report, but instead evaluate the content disclosed in the reports. It is also believed that the type of context of companies, operating in different countries and experiencing institutional pressures or different regulations, can mean the influence of the disclosure relationship causes a different result from the one found in this and in other research.

The contribution of this research lies in it providing evidence about the direction of causality and the presence of moderating variables in the CSP-CFP relationship, thus complementing the previous studies that test unilateral and direct relationships and revealing the robustness of the corporate performance studies, as well as providing evidence regarding the CSP-CFP relationship in the Brazilian context.

REFERENCES

B3. (2017). Índice de Sustentabilidade Empresarial. Retrieved March, 2017, from <https://www.isebvmf.com.br/>

Berman, S. L., Wicks, A. C., Kotha, S., & Jones, T. M. (1999). Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal, 42*(5), 488-506.

Boaventura, J. M. G., Cardoso, F. R., Silva, E. S., & Silva, R. S. (2009). Teoria dos stakeholders e teoria da firma: um estudo sobre a hierarquização das funções-objetivo em empresas brasileiras. *Revista Brasileira de Gestão de Negócios, 11*(32), 289-307.

Boaventura, J. M. G., Silva, R. S., & Bandeira-de-Mello, R. (2012). Performance Financeira Corporativa e Performance Social Corporativa: Desenvolvimento Metodológico e Contribuição Teórica dos Estudos Empíricos. *Revista Contabilidade & Finanças, 23*(60), 232-245.

Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *Academy of Management Review, 4*(4), 497-505.

Chang, Y. K., Oh, W. Y., & Messersmith, J. G. (2013). Translating corporate social performance into financial performance: exploring the moderating role of high-performance work practices. *The International Journal of Human Resource Management, 24*(19), 3738-3756.

Cho, C. H.; Guidry, R. P.; Hageman, A. M.; Patten, D. M. (2012). Do actions speak louder than words? An empirical investigation of corporate environmental reputation. *Accounting, Organizations and Society, 37*(1), 14-25.

Choi, J., & Wang, H. (2009). Stakeholder relations and the persistence of corporate financial performance. *Strategic Management Journal, 30*(8), 895-907.

Clarkson, M. E. (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review, 20*(1), 92-117.

Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society*, *33*(4-5), 303–327.

Crisóstomo, V. L., & Oliveira, M. R. (2016). Uma análise dos determinantes da responsabilidade social das empresas brasileiras. *Brazilian Business Review, 13*(4), 75-97.

Daniel, F., Lohrke, F. T., Fornaciari, C. J., & Turner Jr, R. A. (2004). Slack resources and firm performance: a meta-analysis. *Journal of Business Research, 57*(6), 565-574.

Danso, A., Adomako, S., Amankwah-Amoah, J., Owusu-Agyei, S., & Konadu, R. (2019). Environmental sustainability orientation, competitive strategy and financial performance. *Business Strategy and the Environment, 28,* 885-895.

Dawkins, C.; Fraas, J. W. (2011). Coming Clean: The Impact of Environmental Performance and Visibility on Corporate Climate Change Disclosure. *Journal of Business Ethics, 100*(2), 303-322.

Dye, R. A. (1985). Disclosure of Nonproprietary Information. *Journal of Accounting Research*, *23*(1), 123–145.

Fávero, L. P., & Belfiore, P. (2017). *Manual de análise de dados*. Rio de Janeiro: Elsevier.

Fiandrino, S., Devalle, A., & Cantino, V. (2019). Corporate governance and financial performance for engaging socially and environmentally responsible practices. *Social Responsibility Journal, 15*(2), 171-185.

Freeman, R. E. (1984). *Strategic management: a stakeholder approach*. Boston: Pitman.

Gallego-Álvarez, I. (2012). Indicators for Sustainable Development: Relationship between Indicators Related to Climate Change and Explanatory Factors. *Sustainable Development, 20*(4), 276-292.

Garcia, E. A. R. (2016). *A Influência do Disclosure na Relação entre Corporate Social Performance e Corporate Financial Performance*. [Doctoral dissertation]. Universidade de Fortaleza. Fortaleza, Brasil.

Garcia, E. A. R., Sousa-Filho, J. M., & Boaventura, J. M. G. (2018). A influência do disclosure social na relação entre Performance Financeira Corporativa e Performance Social Corporativa. *Revista Contabilidade & Finanças, 29*(77), 229-245.

Global Reporting Initiative. (2017). *Sustainability Disclosure Database*. Disponível em: <http://database.globalreporting.org/search/>. Retrieved August, 2017.

Grewatsch, S., & Kleindienst, I. (2017). When does it pay to be good? Moderators and mediators in the corporate sustainability–corporate financial performance relationship: A critical review. *Journal of Business Ethics, 145*(2), 383-416.

Hamilton, G. G., & Biggart, N. W. (1988). Market, culture, and authority: A comparative analysis of management and organization in the Far East. *American Journal of Sociology, 94*, s52-s94.

Hategan, C. D., Sirghi, N., Curea-Pitorac, R. I., & Hategan, V. P. (2018). Doing well or doing good: The relationship between corporate social responsibility and profit in Romanian companies. *Sustainability, 10*(4), 1041.

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics, 31*(1), 405-440.

Hou, T. C. T. (2019). The relationship between corporate social responsibility and sustainable financial performance: Firm-level evidence from Taiwan. *Corporate Social Responsibility and Environmental Management, 26*(1), 19-28.

Hull, C. E., & Rothenberg, S. (2008). Firm performance: The interactions of corporate social performance with innovation and industry differentiation. *Strategic Management Journal, 29*(7), 781-789.

Jensen, M. C. (2001). Value maximization, stakeholder theory, and the corporate objective function. *Journal of Applied Corporate Finance, 14*(3), 8-21.

Khan, A., Muttakin, M. B., & Siddiqui, J. (2013). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of Business Ethics, 114*(2), 207-223.

Lang, M., & Lundholm, R. (1993). Cross-Sectional Determinants of Analyst Ratings of Corporate Disclosures. *Journal of Accounting Research*, *31*(2), 246–271.

Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly, 48*(2), 268-305.

Mascena, K. M. C., Fischmann, A. A., & Boaventura, J. M. G. (2018). Priorização de stakeholders em empresas que divulgam relatórios GRI no Brasil. *Brazilian Business Review, 15*(1), 17-32.

Matten, D., & Moon, J. (2008). "Implicit" and "explicit" CSR: A conceptual framework for a comparative understanding of corporate social responsibility. *Academy of Management Review, 33*(2), 404-424.

Mukherjee, A., & Nuñez, R. (2019). Doing well by doing good: can voluntary CSR reporting enhance financial performance? *Journal of Indian Business Research, 11*(2), 100-119.

Nason, R. S., Bacq, S., & Gras, D. (2018). A behavioral theory of social performance: Social identity and stakeholder expectations. *Academy of Management Review, 43*(2), 259-283.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies, 24*(3), 403-441.

Peng, C. W., & Yang, M. L. (2014). The effect of corporate social performance on financial performance: The moderating effect of ownership concentration. *Journal of Business Ethics, 123*(1), 171-182.

Salazar, J., Husted, B. W., & Biehl, M. (2012). Thoughts on the evaluation of corporate social performance through projects. *Journal of Business Ethics, 105*(2), 175-186.

Silva-Gao, L. (2012). The Disclosure of Environmental Capital Expenditures: Evidence from the Electric Utility Sector in the USA. *Corporate Social Responsibility and Environmental Management, 19*(4), 240–252.

Stocker, F., Arruda, M. P., Mascena, K. M. C., & Boaventura, J.M.G. (2020). Stakeholder engagement in sustainability reporting: a classification model. *Corporate Social Responsibility and Environmental Management*, 1–10. https://doi.org/10.1002/csr.1947

Stocker, F., & Mascena, K. M. C. (2019). Orientação e gestão para stakeholders no processo de decisão organizacional. *Revista de Gestão e Secretariado, 10*(1), 167-191.

Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review, 20*(3), 571-610.

Sutantoputra, A. W.; Lindorff, M.; Johnson, E. P. (2012). The relationship between environmental performance and environmental disclosure. *Australasian Journal of Environmental Management, 19*(1), 51–65.

Tang, Z., Hull, C. E., & Rothenberg, S. (2012). How corporate social responsibility engagement strategy moderates the CSR–financial performance relationship. *Journal of Management Studies, 49*(7), 1274-1303.

Tantalo, C, & Priem, R. L. (2016). Value creation through stakeholder synergy. *Strategic Management Journal, 37*(2), 314-329.

Verrecchia, R. E. (1983). Discretionary disclosure. *Journal of Accounting and Economics, 5*, 179-194.

Waddock, S. A., & Graves, S. B. (1997). The corporate social performance-financial performance link. *Strategic Management Journal, 18*(4), 303-319.

Xie, J., Nozawa, W., Yagi, M., Fujii, H., & Managi, S. (2019). Do environmental, social, and governance activities improve corporate financial performance? *Business Strategy and the Environment, 28*(2), 286-300.