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Impact of corporate donations to combat Covid-19 on the market value of donor companies: an analysis from the perspective of legitimacy theory

Impacto das doações corporativas para o enfrentamento da Covid-19 no valor de mercado das empresas doadoras: uma análise sob a perspectiva da teoria da legitimidade

Impacto de las donaciones corporativas para combatir el Covid-19 en el valor de mercado de las empresas donantes: un análisis desde la perspectiva de la teoría de la legitimidad

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Abstract

Purpose: The objective of the study is to verify the impact of corporate donations aimed at combating Covid-19 on the market value of the involved companies.

Methodology: We employ the event study methodology, examining the returns of company shares on the dates when corporate donations were announced.

Results: Results indicate an increase in the standard deviation of daily returns of Itaú, Vale and JBS shares compared to Ibovespa. For Itaú, three statistically significant abnormal returns occurred during the event window, with two being negative and only one positive, thus the negatives prevailed. In the case of Vale, there was one significant abnormal return of each kind prior to the event, and one positive return on the event day. For JBS, five statistically significant abnormal returns were observed during the event window, with three being positive and two negatives. Therefore, the hypothesis that corporate donations during the Covid-19 pandemic positively impact the market value of donors was partially confirmed for Vale and JBS, but not for Itaú.

Contributions of the Study: The study concludes that acts of corporate social responsibility (CSR) positively impact the market value of the practicing companies. Additionally, it suggests that the impact on market value varies among companies based on the nature of the threat to their legitimacy, with those facing threats originated from individual responsibility showing a positive impact.

Keywords: Covid-19; Corporate Donation; Legitimacy Theory; Corporate Social Responsibility; Event Study.

Resumo

Objetivo: O objetivo do estudo é verificar o impacto das doações corporativas para o enfrentamento da Covid-19 no valor de mercado das empresas envolvidas.

Metodologia: Emprega-se a metodologia de estudo de eventos do retorno das ações das empresas nas datas de divulgação da realização das doações corporativas.

Resultados: Os resultados apontam um aumento no desvio padrão dos retornos diários das ações do Itaú, Vale e JBS, quando comparados ao do Ibovespa. No caso do Itaú ocorreram 3 retornos anormais estatisticamente significativos durante a janela do evento, sendo 2 negativos e apenas 1 positivo, de modo que aqueles prevaleceram. Na Vale houve 1 de cada em momento anterior ao evento, assim como 1 positivo no dia do evento. Na JBS foram verificados 5 retornos anormais estatisticamente significativos durante a janela do evento, sendo 3 positivos e 2 negativos. Desse modo, a hipótese estabelecida, no sentido de que as doações corporativas no contexto da pandemia de Covid-19 impactam positivamente o valor de mercado das doadoras, foi parcialmente confirmada em relação à Vale e JBS, não se observando o mesmo no Itaú.

Contribuições do Estudo: A prática de atos de responsabilidade social corporativa (RSC) impacta positivamente o valor de mercado das empresas praticantes. Além disso, o estudo indica que o impacto no valor de mercado varia entre as empresas conforme a natureza da ameaça à legitimidade delas, sendo que aquelas cuja ameaça decorre de sua responsabilidade individual apresentaram impacto positivo.

Palavras-chave: Covid-19; Doação Corporativa; Teoria da Legitimidade; Responsabilidade Social Corporativa (RSC); Estudo de Eventos.

Resumen

Objetivo: El objetivo del estudio es verificar el impacto de las donaciones corporativas para combatir el Covid-19 en el valor de mercado de las empresas en cuestión.

Metodología: Se utiliza la metodología de estudio de eventos de devolución de acciones de empresas en las fechas de divulgación de donaciones corporativas.

Resultados: Los resultados apuntan a un aumento en la desviación estándar de la rentabilidad diaria de las acciones de Itaú, Vale y JBS, en comparación con el Ibovespa. En el caso de Itaú, hubo 3 retornos anormales estadísticamente significativos durante la ventana del evento, 2 de los cuales fueron negativos y sólo 1 positivo, por lo que prevalecieron. En Vale hubo 1 de cada uno antes del evento, además de 1 positivo el día del evento. En JBS, se verificaron 5 retornos anormales estadísticamente significativos durante la ventana del evento, 3 de los cuales fueron positivos y 2 negativos. Así, la hipótesis establecida, en el sentido de que las donaciones corporativas en el contexto de la pandemia de Covid-19 impactan positivamente el valor de mercado de los donantes, fue parcialmente confirmada en Vale y JBS, no observándose lo mismo en Itaú.

Contribuciones del Estudio: La práctica de actos de responsabilidad social empresarial (RSE) impacta positivamente en el valor de mercado de las empresas que lo practican. Además, el estudio indica que el impacto sobre el valor de mercado varía entre empresas dependiendo de la naturaleza de la amenaza a su legitimidad, teniendo un impacto positivo aquellas cuya amenaza surge de su responsabilidad individual.

Palabras clave: COVID-19; Donación Corporativa; teoría de la legitimidad; Responsabilidad Social Empresarial (RSE); Estudio de eventos.

1 Introduction

The global pandemic caused by the SARS-CoV-2 virus, commonly known as the coronavirus disease (Covid-19), has had far-reaching effects that extend well beyond the health sector. These effects have included significant economic consequences, such as disruptions in supply chains and impacts on corporate revenues. As evidenced in the 2020 Edelman Trust Barometer Special Report, the pandemic has also resulted in a decline in corporate legitimacy among consumers and society at large. For example, companies that did not safeguard their employees during the pandemic may encounter adverse consequences with respect to their legitimacy, whereas those that made a positive contribution to society are likely to experience a favorable impact on their legitimacy.

Considering these circumstances, it can be posited that this context may prove advantageous for companies whose legitimacy is under threat, as they may seek to enhance it through societal actions, such as engaging in and promoting acts of corporate social responsibility (CSR) (Islam, 2017). Corporate donations fall within this framework and are one of the primary forms and proxies of CSR. They have the potential to create a favorable impression of the company among customers and suppliers, thereby mitigating potential threats to its legitimacy (Houqe et al., 2019).

In the Brazilian context, Batista, Saran, Limongi, Silva, and Gomes (2020) conducted an analysis of consumer reactions to Magazine Luiza S.A.'s R$10 million donation to combat the spread of the novel coronavirus, finding that it resulted in positive engagement. It is noteworthy that the benefit derived from the public did not originate from the donation itself, but rather from its communication..

The three largest donations made by Brazilian companies to combat Covid-19 came from companies facing challenges to their legitimacy. Itaú Unibanco S.A. donated R$1 billion, despite the frequent questioning of its banking activities by society (Sartore, 2006). Vale S.A., which donated R$500 million, has been responsible for two of the largest environmental disasters in history, namely the Mariana and Brumadinho disasters that occurred in recent years (Fabrício et al., 2019). Lastly, JBS, which made a R$400 million donation, has been implicated in corporate scandals pertaining to product quality and public official corruption, which have eroded its legitimacy (Dallolio & Carvalho, 2017).

Therefore, it is relevant to extrapolate the immediate economic and financial impact of these donations, potentially intensified by the Covid-19 pandemic to ascertain whether this expenditure will be offset by gains in legitimacy. One method to assess this is by examining the impact of the donations on the market value of the donor companies. This reflects market agents' expectations regarding the companies' future financial returns, which are influenced by the companies' legitimacy, understood as an organizational resource (Suchman, 1995). In this context, the following question arises: **What is the impact of the corporate donations made by Itaú, Vale, and JBS during the Covid-19 pandemic on their market value?**

Based on this issue, the study aims to evaluate the impact of corporate donations made by Itaú, Vale, and JBS during the Covid-19 pandemic on their market value.

From a social perspective, this offers valuable insights into the impact of corporate social responsibility (CSR) practices. This information enables various stakeholders in society to evaluate these actions and, consequently, influence the companies' legitimacy. From the companies' perspective, the study is also relevant as it offers insights which assist managers in understanding the consequences of CSR activities, thereby supporting more informed decision-making.

This research provides insights into the impact of corporate donations made by companies facing legitimacy challenges. By examining these donations through the lenses of corporate social responsibility (CSR) and legitimacy theory, the study delves into the far-reaching implications of such actions, extending beyond the immediate economic and financial metrics. Additionally, given that the Covid-19 pandemic is a relatively recent phenomenon, this research contributes to a new area of literature, with a particular focus on how corporate donations aimed at combating Covid-19 affect the market value of the donor companies.

2 Literature Review

2.1 Legitimacy Theory and Corporate Social Responsibility

Legitimacy Theory posits that an organization's survival and continuity depend on its alignment with societal expectations (Islam, 2017), based on the concept of a "Social Contract" (Deegan, 2002). Legitimacy is understood as the widespread perception that an entity's actions are desirable, proper, or appropriate within a socially constructed framework of norms, values, beliefs, and definitions (Suchman, 1995).

Given its importance, legitimacy is regarded as an organizational resource (Suchman, 1995). This implies that the presence or absence of legitimacy in each entity bears influence on a range of factors, including regulatory compliance, consumer preferences, financial market willingness to provide capital, media coverage, and other aspects. It is therefore imperative for organizations to comprehend stakeholder expectations in order to establish, maintain, enhance, or defend their legitimacy (Tilling, 2004).

This research is particularly focused on the defense of legitimacy, as it concerns companies whose reputations are constantly under public scrutiny. This includes Itaú, which is part of the banking sector (Sartore, 2006), Vale, which has been responsible for two of the largest environmental disasters in history (Fabrício et al., 2021), and JBS, which has recently been implicated in corporate scandals (Dallolio & Carvalho, 2017).

A crucial element in maintaining legitimacy is Corporate Social Responsibility (CSR), which can be defined as the socio-environmental practices adopted by companies and their impact on a range of stakeholders (Martínez-Ferrero et al., 2015). Carroll and Shabana (2010) posit that the primary rationale for the adoption of CSR practices is the enhancement of legitimacy and reputation from an economic and financial perspective.

The importance of CSR lies in its focus on motivations beyond immediate profit (Barkemeyer, 2007), which is consistent with the objectives of this study. A review of the literature reveals that companies frequently utilize CSR disclosure as a strategic response to threats to their legitimacy (Islam, 2017).

During the Covid-19 pandemic, CSR activities become particularly significant (Edelman, 2020), presenting an opportunity for companies dealing with legitimacy challenges, such as those examined in this study (Sartore, 2006; Fabrício et al., 2019; Dallolio & Carvalho, 2017).

2.2 The Consequences of CSR Practices through Corporate Donations

Corporate donations are considered one of the proxies of CSR, offering a positive image of the company to customers and/or suppliers, including the mitigation of adverse impacts resulting from the company's operations (Houqe et al., 2019). This indicates that one of the common ways in which organizations exercise CSR is by making donations.

One of the primary factors influencing the representativeness of donations is the visibility of the company, which is attributable to the necessity of managing the interests of a larger number of stakeholders (Campbell & Slack, 2006). Furthermore, the influence of governmental and shareholder pressure has been demonstrated to be a significant factor in the context of corporate donations in Chinese companies, particularly in comparison to the influence of consumer and employee pressure (Wang et al., 2015).

Conversely, political donations made by companies are not typically disclosed voluntarily (Melendez & Hazelton, 2008). This supports the notion that acts of liberality are managed for legitimacy, as those that raise concerns in society are often not disclosed.

Some observed effects of corporate donations include an increase in competitive advantage (Tian, 2010) and higher sales in cases of cause-related marketing (Machado & Damacena, 2006). Research into cause-related marketing, which involves conditional donations, indicates that its positive impact on a company's reputation is less pronounced compared to unconditional donations (Dean, 2003). This suggests that the nature of the donation influences its effect on organizational legitimacy.

Regarding the impact of corporate donations on financial performance, Marcon, Mello, and Alberton (2008) highlight that donations directed towards stakeholders can negatively affect financial performance, as measured by return on assets. Conversely, Barauskaite and Streimikiena (2020) note that the literature presents contradictory evidence on this matter.

In the context of financial companies listed in Bangladesh, Rahman et al. (2020) identified a positive association between the CSR disclosure index and market value, underscoring the importance of publicizing CSR activities.

Additionally, Houqe et al. (2019) conducted an extensive analysis of 52,199 observations from 42 countries between 1998 and 2014. Their findings revealed a positive correlation between corporate donations and market value. Consequently, despite the possibility that some donations may be made to serve management’s interests—which could indicate agency problems—the increase in company value resulting from donations effectively offsets the potential negative effects of agency conflicts.

Overall, corporate donations can influence variables that reflect on the economic and financial performance of organizations, as well as on the market value of companies, which is considered to be the synthesis of the expectations of market agents regarding their return (Scott, 2015).

2.3 Formulating the Research Hypothesis

In light of the aforementioned studies, it can be posited that threats to legitimacy, conceptualized as an organizational resource (Suchman, 1995), can be mitigated through the practice of corporate social responsibility (CSR), including corporate donations (Houqe et al., 2019). This practice is particularly pertinent in contexts sensitive to organizational reputation, such as the current SARS-CoV-2 pandemic (Edelman, 2020).

Given that the companies under examination face threats to their legitimacy (Sartore, 2006; Fabrício et al., 2021; Dallolio & Carvalho, 2017), it is assumed that their corporate donations will positively impact their legitimacy as an organizational resource, thereby enhancing their market values. Based on these considerations, the research hypothesis is formulated as follows:

H1: *The corporate donations made by Itaú, Vale, and JBS during the Coronavirus pandemic positively impacted their market values.*

3 Methodology

This study employs an event study methodology, recognized for its effectiveness in measuring the impact of specific events on the value of entities (MacKinlay, 1997). Binder (1998) also highlights its relevance as the standard method for assessing price reactions to new information, thereby testing the efficient market hypothesis concerning public disclosures.

The event study methodology, utilized in previous research on CSR and Legitimacy Theory (Katsikides & Markoulis, 2016; Arya & Zhang, 2009), enables the measurement of the immediate impact of corporate donation announcements by Itaú, Vale, and JBS on their market values. This is achieved by analyzing the price reactions of their most liquid shares traded on Brasil, Bolsa, Balcão (B3), under the respective codes ITUB4, VALE3, and JBSS3.

Itaú operates in the banking sector and is the largest private bank in Latin America; Vale is the largest mining company in Brazil and the second largest globally; and JBS is the world's largest producer of animal protein. A summary of the companies' identification data, along with the representativeness of the donations relative to 2020 revenue and profit for comparative purposes, is presented in Table 1:

Table 1
Identification of the Sample Companies

Company	Sector Classification	Governance Segment	Ibovespa Participation	Donation Amount (in R$ thousand)	% of 2020 Revenue	% of 2020 Profit
Itaú Unibanco S.A.	Financial Financial Intermediaries Banks	Level 1	7,4%	1.000.000	0,58%	6,6%
Vale S.A.	Basic Materials Mining Metallic Minerals	New Market	10,2%	500.000	0,24%	2,0%
JBS S.A.	Non-Cyclical Consumption Processed Foods Meats	New Market	2,7%	700.000	0,26%	15,0%

Source: *research data.*

These three companies form the sample for this event study as they were the largest donors for combating Covid-19 in Brazil according to a ranking by Forbes (Galina, 2020). Other companies in the ranking were excluded due to significantly smaller donation amounts (e.g., Ambev, which donated R$ 110 million, ranked fourth), not having listed shares, or not facing threats to their legitimacy. Data was sourced from the Economatica® platform, considering adjusted closing stock prices for each day, accounting for splits, consolidations, and dividend payments..

The events in this study are the corporate announcements of donations by Itaú (Itaú Unibanco Holding S.A., 2020), Vale (Vale S.A., 2020), and JBS (JBS S.A., 2020), dated April 13, 2020, March 22, 2020, and May 11, 2020, respectively. These announcement dates are considered Date 0. The events are named Event 1 (Itaú), Event 2 (Vale), and Event 3 (JBS). Other donations made by these companies outside the study's timeframe are not analyzed.

Regarding the duration of the event window, MacKinlay (1997) acknowledges the subjective element inherent in its determination. It is customary to define this interval between three and five days surrounding Date 0. A period of three trading days before and after the event was selected. It is important to note that no other significant events were identified for the companies in the sample within their respective event windows. This precaution was taken to exclude the potential interference of other events on the verified results. The graphical representation of Event 1's event window is presented in Figure 1.

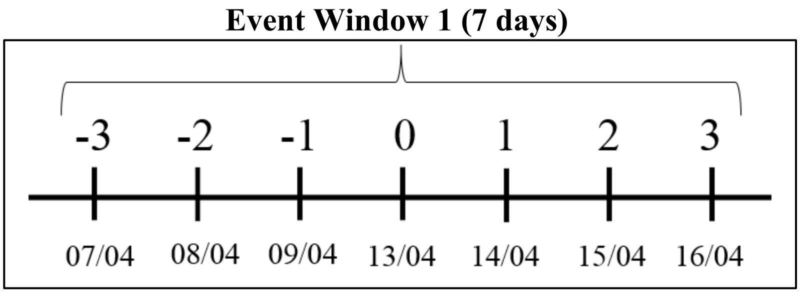

Figure 1 *Event Window 1*
Source*: research data.*

The estimation window, which is used to calculate the parameters pon which expected and abnormal returns are estimated, must be defined. The most common choice is a period preceding the event window to ensure that the estimation parameters are not influenced by the event itself (MacKinlay, 1997). According to Benninga (2014), the most common estimation period is 252 trading days, or one business year. In relation to Event 1, the estimation window is graphically represented relative to the event window as follows (Figure 2):

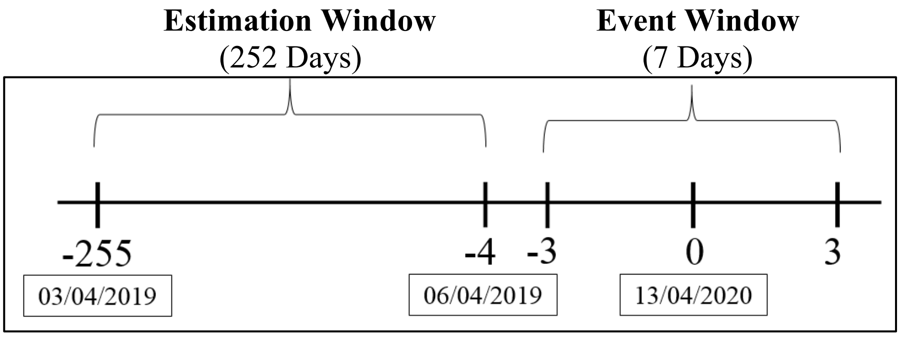

Figure 2 *Estimation Window for Event 1*
Source: *research data.*

To calculate the expected return, the risk-adjusted and market-adjusted return method is applied. According to Soares et al. (2002), this is the most commonly used method and the most sensitive to market reactions. This method involves estimating a simple linear regression using the ordinary least squares (OLS) technique. The regression is performed between the daily returns of the sample companies' stock prices (R_{it}) and the daily market return (R_{mt}), measured by the variation in the Ibovespa index, over the 252 days of the estimation window. These daily returns are calculated as follows:

$$R_{it} = \text{Ln}\, {}^{P_{it}}/_{P_{it-1}}$$
$$R_{mt} = \text{Ln}\, {}^{C_t}/_{C_{t-1}}$$

Where:
P_{it} is the stock price of *i* on day *t*;
P_{it-1} is the stock price of *i* on the previous day, *t*-1;
C_t is the Ibovespa index value on day *t;*
C_{t-1} is the Ibovespa index value on the previous day, *t*-1;

Ln represents the natural logarithm, which determines daily returns considering continuous compounding, an appropriate method for calculating continuous and compounded returns (Benninga, 2014).

Estimated using the OLS technique for the linear regression between R_{it} and R_{mt}, os their parameters α and β are represent the intercept and slope coefficient, respectively.

Table 2 shows the α and β for the event regression:

Table 2
Values of parameters α and β by event

Event	α	β
1- Itaú	-0,000639971	0,775214836
2 - Vale	0,000529964	1,090894835
3 - JBS	0,001469388	0,969033267

Source: *research data.*

In the risk-adjusted return and market method, the expected daily returns for the event window (E_{it}) are calculates based on the parameters α and β estimated for the respective event and the actual daily market returns observed during that period, according to the equation:

$$E_{it} = \alpha_i + \beta_i R_{mt}$$

Once the expected return is calculated, the abnormal return for the event window days (AR_{it}) can be obtained, which consists of the difference between the daily stock price return and the expected return for the same day:

$$AR_{it} = R_{it} - E_{it}$$

To perform statistical inference from the abnormal return, we calculate the *t*-value. This is done by dividing the abnormal return by the standard error of the predicted values from the regression model estimated for the event (S_{ie}) (Benninga, 2014):

$$t = {}^{AR_{it}}/_{S_{ie}}$$

The standard error of the predicted values for the regressions related to each event is shown in Table 3.

Table 3
Standard Error Value by Event

Event 1 - Itaú	Event 2 - Vale	Event 3 - JBS
0,012517943	0,017022086	0,029427669

Source: *research data.*

If the calculated t exceeds the one-tailed critical t-values of 1.28, 1.64, and 2.33 for significance levels of 10%, 5%, and 1%, respectively, there is a statistically significant abnormal return (Barros et al., 2019). The critical t-value considered is one-tailed and positive, as the hypothesis predicts a positive impact of the events on market value.

4 Results and Analysis

The descriptive statistics of the daily returns for the stocks ITUB4 (Itaú), VALE3 (Vale), and JBSS3 (JBS) in relation to their timing relative to each event are presented in Table 4.

Table 4
Descriptive Statistics of Estimation and Event Windows

		Estimation Window		Event Window (-3 to -1)		Event Window (0 to 3)	
		Mean	**S.D.**	**Mean**	**S.D.**	**Mean**	**S.D.**
Event 1	**Itaú**	-0,14%	2,39%	1,93%	4,20%	-0,75%	2,86%
	Ibov	-0,10%	2,63%	1,59%	2,42%	0,04%	1,59%
Event 2	**Vale**	-0,07%	3,06%	-5,51%	1,93%	4,42%	5,88%
	Ibov	-0,11%	2,33%	-3,55%	6,69%	3,68%	6,46%
Event 3	**JBS**	0,07%	3,93%	1,00%	4,74%	1,04%	4,15%
	Ibov	-0,08%	2,70%	0,33%	2,09%	-0,39%	1,47%

Source: *research data.*

The standard deviation of daily returns during the event window for the assets is greater than that observed in the estimation window. This assertion, however, cannot be made about the daily returns of the Ibovespa. This may indicate that the greater dispersion observed for Itaú, Vale, and JBS stocks is due to the events themselves rather than the market as a whole, especially since these three companies represent a significant portion of the Ibovespa.

This observation is significant given that, during the period of the events, the Covid-19 pandemic had considerable effects on the returns of publicly traded stocks. It can be concluded that the increased standard deviation of the analyzed assets is not attributable to the aforementioned pandemic-related developments, as such effects would likely have impacted other companies within the Ibovespa index as well.

Regarding the average daily returns for Event 2, Vale exhibited lower returns in the days preceding the event and higher returns following the occurrence of the event, suggesting a potential reversal in the stock trend as a result of the event.

For Event 3, the average daily returns during the event window were higher compared to the estimation window and were consistent both in the days immediately preceding the event and on the event day itself, as well as in the days following. This indicates a positive market reaction to JBS's announcement of its corporate donation.

In contrast, for Event 1, the evidence is mixed. The average daily returns in the days immediately preceding Day 0 were higher than those observed in the estimation window, while returns after the event were lower. The abnormal return for each day of the event window, along with the calculated t-values – which represent the inferential statistics for this study – are presented in Table 5.

Table 5
Abnormal Returns and Calculated t-Values by Event and Day of the Event Window

Day of the Event Window		-3	-2	-1	0	1	2	3
Event 1 - Itaú	Abnormal Returns	1,34%	2,80%	-1,85%	1,03%	0,25%	-2,65%	-1,48%
	Calculated t-Value	1,07	**2,24**	**-1,48**	0,82	0,20	**-2,12**	-1,18
Event 2 - Vale	Abnormal Returns	4,73%	-8,37%	-1,40%	2,65%	-0,27%	0,25%	-1,21%
	Calculated t-Value	**2,78**	**-4,92**	-0,82	**1,55**	-0,16	0,14	-0,71
Event 3 – JBS	Abnormal Returns	1,75%	6,54%	-6,70%	0,07%	3,80%	6,14%	-4,90%
	Calculated t-Value	0,59	**2,22**	**-2,28**	0,02	**1,29**	**2,09**	**-1,66**

Source: *research data.*

In Event 1, three abnormal returns were observed to be statistically significant at a minimum significance level of 10%, with one positive (Day -2) and two negative (Days -1 and 2). Notably, two of these returns precede the event and could indicate the presence of insider trading. Nonetheless, negative returns predominated, particularly following the announcement of the corporate donation, with significant negative abnormal returns of 2.65% on Day 2 and non-significant negative returns of 1.48% on Day 3 (Figure 3).

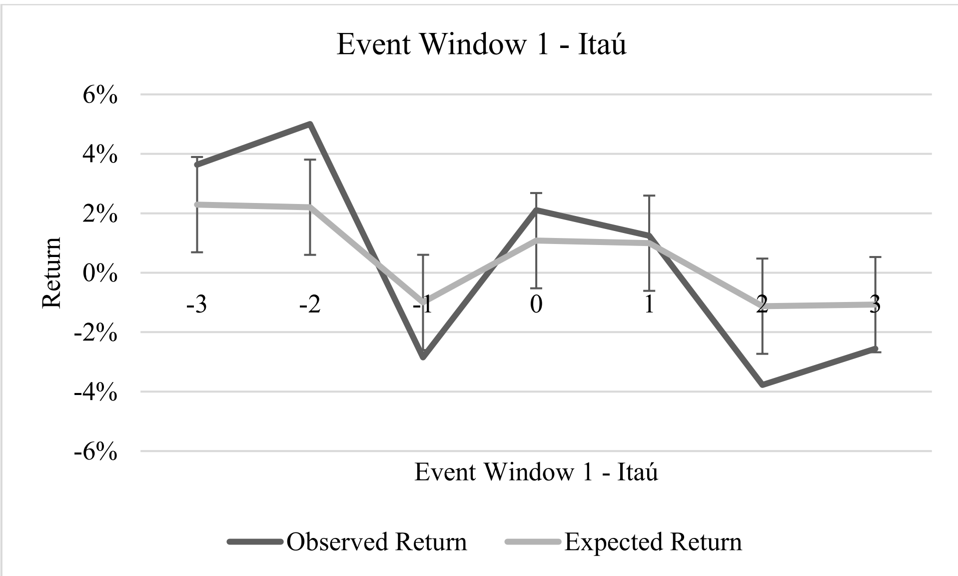

Figure 3 Line Chart with Error Bars of Observed and Expected Returns (Event Window 1)
Fonte: *research data.*

The results do not support H1 which predicts that Itaú's corporate donation during the Covid-19 pandemic positively impacted its market value. The reasons for this are explored further, in contrast to the findings of Events 2 and 3.

In Event Window 2, three abnormal returns with statistical significance were observed: one positive at the 1% significance level (Day -3), one negative at the 1% significance level (Day -2), and another positive at the 10% significance level on the day of the event. This suggests a potential positive effect on the stock price on the day of the donation announcement. However, in the subsequent days, the stock prices remained within the estimated range, showing no statistical significance (Figure 4).

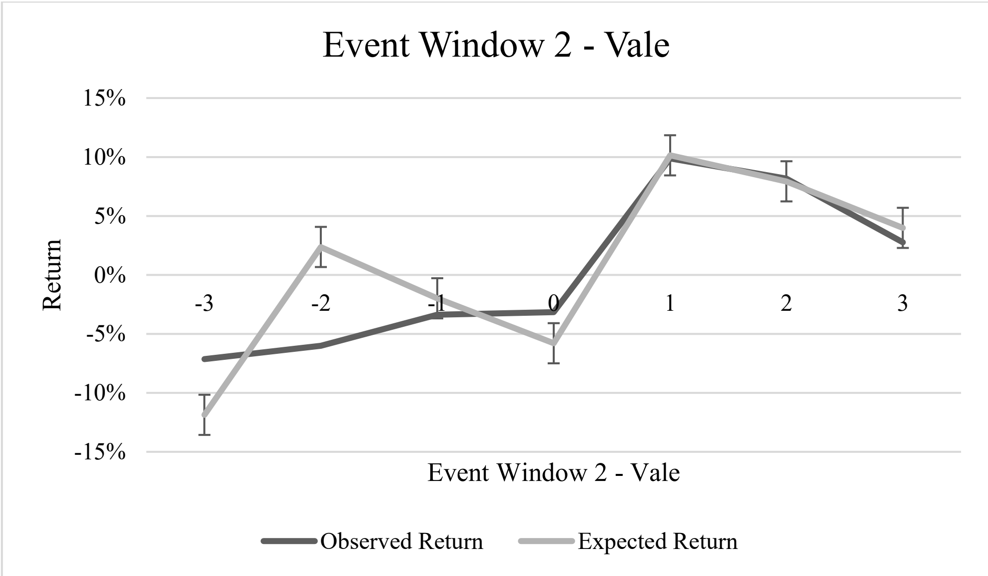

Figure 4 Line Chart with Error Bars of Observed and Expected Returns (Event Window 2)
Source: *research data.*

For Vale, the results lead to the rejection of H0 in favor of accepting H1, which asserts that its corporate donation during the Covid-19 pandemic had a positive impact on its market value.

In Event Window 3, five abnormal returns were observed to be statistically significant at a minimum level of 10%, with three positive (Days -2, 1, and 2) and two negative (Days -1 and 3). Unlike Event 1, positive abnormal returns predominate, particularly those observed in the two days immediately following Day 0, with returns of 3.80% and 6.14%, respectively (Figure 5).

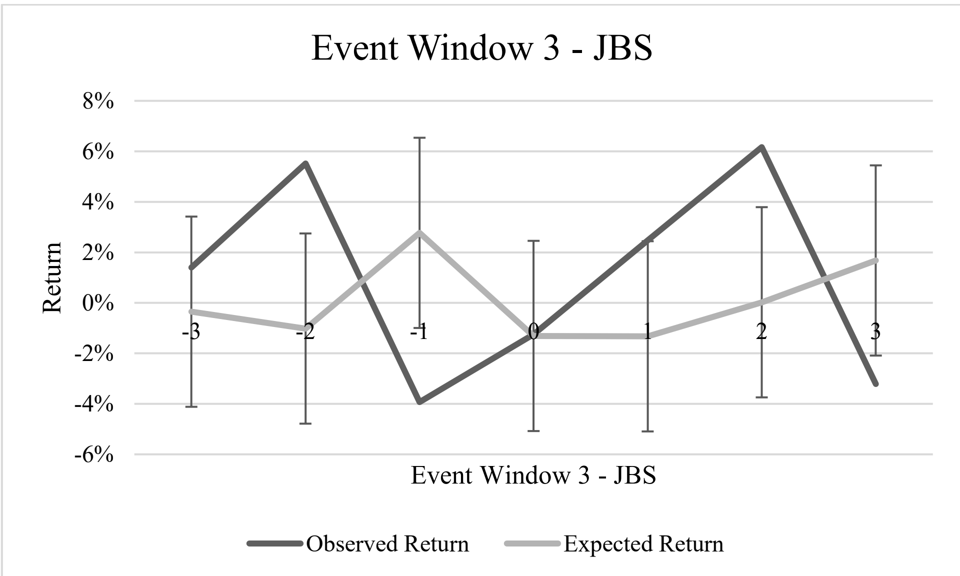

Figure 5 Line Chart with Error Bars of Observed and Expected Returns (Event Window 2*)*
Source: *research data.*

In the case of JBS, the results support H1, which asserts that the company's corporate donation during the Covid-19 pandemic positively impacted its market value.

Thus, the results demonstrate disparate outcomes among the three companies. Corporate donations did not positively impact Itaú's market value, in contrast to the donations made by Vale and JBS. Nonetheless, the occurrence of disparate abnormal returns throughout the event windows lends support to the proposition that legitimacy, as conceptualized by Suchman (1995), can exert an influence on market value. From the perspective of Legitimacy Theory, these differences may be attributed to the varying types of legitimacy threats faced by the companies.

Itaú's legitimacy threat is associated with the financial sector (Sartore, 2006), while Vale's is linked to socio-environmental tragedies (Fabrício et al., 2021), and JBS faces threats related to governmental corruption (Dallolio & Carvalho, 2017). It can thus be argued that Itaú's donation does not contribute to enhancing the legitimacy of the financial sector. In contrast, the corporate donations made by Vale and JBS appear to have partially restored the legitimacy that was compromised by their previous negative actions. This observation is consistent with the findings of Houge et al. (2019), which indicate that corporate philanthropic actions have the potential to mitigate the adverse perceptions that arise from prior instances of corporate misconduct.

Another factor that may account for the contrasting results is the underlying nature of the legitimacy threats faced by these companies. A significant challenge to the legitimacy of banks stems from the social perception that their profits are excessive and unjustified (Sartore, 2006). Itaú's decision to donate a substantial R$1 billion during a critical economic period may reinforce this perception, suggesting that the bank is merely redistributing a portion of its wealth rather than addressing broader societal concerns. In contrast, Vale and JBS, which have encountered financial difficulties in recent years due to the recognition of losses and expenses related to their involvement in illicit activities, cannot be seen as engaging in similar acts of restitution. Consequently, their donations are viewed through a different lens, reflecting their efforts to recover legitimacy lost due to previous misconduct.

These contrasts reinforce Tilling's (2004) assertion that a comprehensive understanding of stakeholder concerns is a pivotal element in the implementation of measures designed to enhance organizational legitimacy. In examining the case of the analyzed companies, it becomes evident that the specific circumstances of each entity influence stakeholder expectations regarding their donations.

It is important to consider, however, that factors beyond those addressed in the Legitimacy Theory might also influence the results. For example, concerns about Itaú's financial stability, which may have been exacerbated by the impact of the pandemic, including elevated consumer default rates and significant disruptions in the banking sector, could be a contributing factor. In this context, a substantial donation may, in fact, serve to exacerbate these concerns rather than assuage them..

H1 was partially supported by the findings, as the results demonstrated that corporate donations from Vale and JBS had a positive effect on their market values, as predicted. Nevertheless, this hypothesis was not upheld for Itaú's corporate donation. The divergent outcomes can be better understood through the lens of Legitimacy Theory, which provides a framework for interpreting these results. Specifically, the theory helps elucidate how the distinct industry contexts of the three companies and the varying nature of the legitimacy threats they face contribute to the observed differences. For example, while Vale and JBS seemed to enhance their market legitimacy through their donations, Itaú's donation did not achieve a similar effect, likely due to differing stakeholder perceptions and the broader financial concerns associated with Itaú's sector.

5 Concluding Remarks

The objective of this study was to evaluate the influence of corporate donations made during the pandemic on the market value of the companies in question, with a particular focus on the concept of legitimacy as outlined in the Legitimacy Theory. This theory examines the perceptions of corporate social responsibility (CSR) practices held by the general public.

The legitimacy of Itaú, Vale, and JBS is currently being subjected to intense scrutiny. Itaú is associated with the financial sector, Vale with environmental disasters, and JBS with corporate scandals. In light of the assertion that corporate social responsibility (CSR) initiatives can bolster organizational legitimacy and consequently impact market values, the hypothesis proposed that corporate donations from these companies would exert a favorable influence on their stock prices.

The research was conducted using the framework of Legitimacy Theory, which views legitimacy as a socially constructed perception that a company meets societal expectations and serves as an organizational resource that can either benefit or harm the organization. The evidence regarding the economic and financial impact of corporate social responsibility (CSR) practices, including corporate donations, remains ambiguous. However, it is evident that such practices can influence the legitimacy of an organization..

An event study was conducted to examine the impact of donation announcements on stock returns. The findings indicated a greater dispersion in stock returns of the analyzed companies compared to the overall market, suggesting that market reactions to the donations were more pronounced. The results indicate that the donations were significant, as evidenced by their impact on the market value of the companies.

Our hypothesis was partially confirmed: donations from Vale and JBS positively affected their market values in the context of the pandemic caused by the SARS-CoV-2 virus, while the hypothesis was not upheld for Itaú’s donation. Therefore, a positive market impact was observed for two of the three companies under analysis, in relation to their donations aimed at addressing the pandemic.

The findings are consistent with the predictions of the Legitimacy Theory, which posits that Itaú is susceptible to legitimacy threats due to its status as a financial institution, whereas Vale and JBS are vulnerable to such threats due to their past actions. It was additionally proposed that disparate forms of legitimacy threats might exert an influence on the outcomes. For example, Itaú's donation of R$1 billion during a period of economic sensitivity may reinforce perceptions of excessive and unjustified banking profits. Nevertheless, alternative explanations that extend beyond the scope of Legitimacy Theory, such as the possibility that market participants were more concerned about the financial stability of Itaú than about Vale and JBS, cannot be excluded.

The primary contribution of this study is the finding that CSR practices impact the market value of companies differently, depending on the nature of the legitimacy threat they face. For society, this research provides evidence that helps various stakeholders assess the legitimacy impact of corporate CSR actions. In particular, the findings indicate that substantial donations may not necessarily enhance a company's legitimacy if its legitimacy threat originates from its high profits. Conversely, this study also offers valuable insights for companies and their managers, providing evidence to inform decision-making regarding CSR activities aimed at enhancing legitimacy.

Furthermore, this study contributes to the existing literature by addressing a previously identified gap and engaging with previous research, particularly that of Tilling (2004), which highlights the importance of understanding stakeholder concerns when implementing measures to maintain or enhance organizational legitimacy. The specific circumstances of each company affect stakeholder expectations regarding their donations, which in turn impact market values in varied ways.

Limitations of this study include the selection and size of the sample and the investigation of underlying causes of abnormal returns. It would be beneficial for future research to consider expanding the sample size to draw more generalizable conclusions and to explore the reasons behind the observed abnormal returns. A further avenue for investigation would be comparative studies examining the way donations are reported in financial statements. This would enable an assessment to be made of the extent to which disclosure practices influence external stakeholder perceptions.

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