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CORPORATE GOVERNANCE AND PERFORMANCE OF COMPANY SHARES OF THE COMMERCIAL SECTOR IN AN ENVIRONMENT OF ECONOMIC CRISIS

WILIEL FLORENCIO
Federal University of Campina Grande. ***Address:*** *Rua Princesa Isabel, n. 29 | Estreito | 58800-778 | Sousa/PB | Brazil.*
http://orcid.org/0000-0003-3412-3044
wiliel@hotmail.com

FABIANO FERREIRA BATISTA
Federal University of Campina Grande. ***Address:*** *BR-230- Rodovia Governador Antônio Mariz, Km 466,5- BR 230 | 58800-000 | Sousa/PB | Brazil.*
http://orcid.org/0000-0003-2831-8478
fabianoferreirabatista@yahoo.com.br

CRISTIANE QUEIROZ REIS
Federal University of Campina Grande. ***Address*** *BR-230- Rodovia Governador Antônio Mariz, Km 466,5- BR 230 | 58800-000 | Sousa/PB | Brazil.*
http://orcid.org/0000-0003-2061-9575
profcristianereis@gmail.com

ABSTRACT

In times of crisis, companies with solid Corporate Governance (CG) tend to experience greater credibility and therefore face softer barriers in the capital market. Thus, this study aimed to analyze the relationship between CG and the share performance, in periods with and without crisis. For this purpose, companies in the commercial sector listed on B3 were considered, with shares traded in the period 2015/2016 (with crisis) and 2017/2018 (without crisis), resulting in a sample of 20 companies, totaling 319 observations. The companies were grouped by participation or not in a differentiated CG segment (L1, L2 and NM) of B3 and analyzed using descriptive statistics and regression with panel data. The results of the descriptive statistics show that, on average, the shares of companies in the trade sector listed in B3 "With-CG" performed better than those "Without-CG", probably the result of greater transparency of the information provided, the equitable treatment of investors and the measures for monitoring agents required by CG practices. Regarding the estimated model, there was statistical significance and a positive sign for the independent variables earnings per share (EPS) and the participation of different levels of corporate governance (1% and 5% respectively). However, the variable that captures the economic crisis was not significant, and it cannot be inferred that CG practices are capable of mitigating the negative effects of economic crises on the share performance.

Keywords: Corporate governance. Share performance. Economic crisis. Trade Sector.

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1 INTRODUCTION

With the need to expand activities and face competition, companies need to raise funds in order to carry out projects that enable them to achieve their goals, whether economic-financial growth, increased production capacity, improved financial health or the implementation of new projects. The growth of organizations benefits the national economy by generating wealth, employment and income, and by increasing consumption and tax collection, generally improving people's quality of life.

According to Garcia and Tavares (2017), as organizations develop in the market, it is common for them to be managed not only by their owners, family groups or by people whose personal ties with the owner go beyond the organizational environment, but also, by managers (agents) who are empowered by the owners (shareholders) to manage the business.

Both the concentration of capital and the delegation of powers to managers (agents) can lead to agency conflicts. In this case, there are two distinct situations: a) managers make decisions aimed at maximizing their own interests to the detriment of the interests of shareholders; b) the majority shareholders, because they have greater power over the organization, make decisions aimed at maximizing their own interests, disregarding the interests of minority shareholders. Thus, such conflicts occur between shareholders and managers (principal-agent); and majority shareholders and minority shareholders (principal-principal).

Seeking to minimize this type of conflict and provide more transparent information to investors, organizations have adopted corporate governance (CG) practices, in order to align the interests of shareholders and shareholders/managers, minimizing the losses caused by agency conflicts and ensuring greater security of investments for stakeholders.

In Brazil, B3 (Brasil, Bolsa, Balcão), formerly known as Bovespa (São Paulo Stock Exchange), created, in the mid-2000s, differentiated levels of Corporate Governance. These levels are divided into three, according to the imposed requirements: Level 1 (L1), with a lower degree of demand; level 2 (L2); and new market (NM), with a higher degree of demand (Geocze, 2010).

According to Clemente, Antonelli, Scherer and Cherobim (2014), the expectation is that when adhering to a level of Corporate Governance, companies, through greater transparency in the information provided to their investors, will be seen as more reliable by the stakeholders, resulting in better performance of stock prices.

Srour (2005) comments that governance practices provide less volatility to returns in such a way that, when negative return shocks occur, good governance practices reduce the tendency of the controller to divert resources, protecting the firm's value to minority shareholders. On the other hand, in times of positive shocks, organizations with worse governance would perform relatively better, since there would be a more significant change in the trends of agents or controllers to reduce deviations in the company's resources and market value. It can be seen then that, in times of crisis, companies with solid corporate governance tend to pass more credibility and for that reason they face softer barriers in the capital market.

Based on this discussion, research has been carried out to identify whether the performance of the assets is related to the adoption of the levels of Corporate Governance (Aguiar, Corrar & Batistella, 2004; Costa & Camargos, 2006; Clemente *et al.*, 2014; Francisco & Santos, 2014; Silva, Santos & Rodrigues, 2016; Freitas, Silva, Oliveira, de Aquino Cabra, & dos Santos, 2018; Rocha, Contani & Reco, 2017). Most of the results do not confirm a direct and significant relationship between corporate governance and share performance, especially in different economic contexts.

However, as evidenced by Silva *et al*. (2016), when analyzing the performance of the company shares that comprise the banking and industrial sector of BM&FBOVESPA, it can be observed that, in comparison with the companies that did not adopt differentiated practices of Corporate Governance, those that did presented better performance in the relationship between risk and return.

It is important to note that the different sectors of economic activities have stakeholders with a difference in 'learning', that is, the level of knowledge of investors and other stakeholders varies according to the sectors of the economy. In this sense, given the changes in market dynamics, the information disclosed by companies can influence investors' decisions regarding the composition of their portfolios, making them able to use the information disclosed by companies to make decisions that maximize their results (Francisco & Santos, 2014; Bernardino, Peixoto, & Nascimento, 2015; Silva *et al.*, 2016).

The commercial sector is responsible for a representative portion of the Gross Domestic Product (GDP). Its representativeness has increased over the years and its added value has shown greater growth than other economic sectors, according to data from the Brazilian Institute of Geography and Statistics (IBGE) (2019). According to Silva (2018), the performance of the trade sector was stimulated by the increase in private consumption and absorbs about 20% of the labor force, despite informal jobs. It is, therefore, a sector that is more sensitive to economic variations, whether in terms of consumption or employability.

In this context, the question that motivated this research was: to what extent is corporate governance related to the performance of the company shares in the commercial sector in an environment with and without economic crisis? In this way, the relationship between the CG and the share performance, traded in the period 2015/2016 (with crisis) and 2017/2018 (without crisis), of the companies in the commercial sector listed in B3 is analyzed.

This work is relevant due to the role of corporate governance in the development of the capital market, which, in turn, contributes to improving the economic development of countries and organizations. It is also relevant because it presents a different scope on the subject in relation to existing research, since it is a comparative study between the different levels of CG and the performance of the actions of companies in the trade sector, which represents a good portion of the country's GDP, in addition to being among the main aggregate sectors of B3. In addition, there are few studies with this sectoral methodology that consider the economic environment mediating this relationship.

Finally, studies dealing with the subject ((Aguiar *et al.*, 2004; Costa & Camargos, 2006; Francisco & Santos, 2014; Bernardino *et al.*, 2015; Silva *et al.*, 2016; Rocha *et al.*, 2017) present mixed results, showing that companies with better corporate governance practices do not always perform better, which adds interest to this work. Given this context, it is necessary to carry out further investigations to deepen the subject.

2 THEORETICAL DISCUSSION

2.1 Agency theory

Assuming that the growth of an organization makes it necessary to delegate powers to a third party to manage it, the increase in the number of owners (often evading the format of family businesses) creates a scenario in which instruments are needed to align interests of this third party (agent), the owners (principal) and other stakeholders with whom an entity establishes contracts.

The entity then comes to be seen as a nexus of contracts with these diverse stakeholders, each with different and sometimes conflicting interests, demanding a theoretical framework to manage these conflicts, as well as to define which interests need to be taken into account by administrators (who are also stakeholders) and which should be prioritized.

Jensen and Meckling (1976) call attention to the lack of a theory that explains how to balance the conflicting interests of the participants of an organization in order to generate results. They focus on the problems arising from the separation between ownership and control (agency problems) and the costs inherent in the process (agency costs), which end up causing

informational asymmetries between the parties, as well as moral risk, adverse selection and other problems. In order to analyze these conflicts, the Agency Theory arises.

Thus, the hypothesis that the agent may act against the interests of the principal, making it necessary to establish incentives, whether financial or even monitoring mechanisms, as a way of ensuring that there will be no different conduct than expected, cannot be ignored.

In this context of conflicts, agency theory is concerned with determining what would be the most efficient contract to discipline the relationship between agent and principal (whether a contract based on performance or behavior), assuming that there is, in addition to the conflict, a performance easily measured, and that the agent is more risk-averse than the principal, since the former cannot diversify his activity, unlike the latter.

Among the main contributions of the Agency Theory, Eisenhardt (1989) reports the rescue of the importance of incentives and self-interest in an organization. Another contribution concerns the vision of information as a commodity, with its respective cost and possibility of being traded and with incentives for the organization to invest in it in order to monitor the agent, for example, through a board of directors. Thus, more complete information systems inhibit managerial opportunism and, consequently, result in lower remuneration for performance.

In general, according to Baker and Anderson (2011) agency theory is the central paradigm of finance and, therefore, they ask how the principal can control and monitor these agents regarding the fulfillment of their functions. They add that, while these agents also become owners of capital, the tendency to make decisions that will harm the group decreases, since their interests would be aligned with those of the other shareholders, with other incentives to minimize possible conflicts.

2.2 Corporate governance

With a view to regulating the relationship between managers and shareholders, in particular, and between all stakeholders of the company as a whole, corporate governance covers a wide range of systems, processes and procedures in order to protect the interests of shareholders and consequently minimize the costs of agency and maximize the value of the organization.

For Garcia and Tavares (2017) and Silveira (2002), corporate governance has practices and mechanisms to monitor and control the agent's activities, so that he makes decisions aimed at the interests of the principal. Therefore, governance practices are expected to minimize agency conflicts and maximize company wealth and investor return.

As defined by the Brazilian Securities and Exchange Commission (CVM) (2019), corporate governance is the set of practices that aims to enhance the performance of a company by protecting all stakeholders, such as investors, employees and creditors, facilitating access to capital, and having as principles the transparency, fair treatment of investors and accountability.

For Silveira (2004), CG can be seen as a set of mechanisms that aim to maximize the probability of investors guaranteeing the return on their investment for themselves, because the set of internal mechanisms (board of directors, remuneration system, ownership structure, transparency and dividend policy) and external (hostile acquisition market, laws to protect shareholders, cross-listings, external audit and inspection of market agents) can align the interests of decision makers and shareholders, minimizing the losses caused by agency conflicts.

According to Silva (2017), composed of a set of principles and practices, corporate governance seeks to reduce conflicts of interest between the different agents of the company (agency conflicts), in order to reduce the cost of capital and maximize the organization's value and return to its investors.

In a scenario of turbulence, volatility, uncertainties and greater economic and financial integration, Camargos and Barbosa (2006) state that CG has been shown to be important and effective for many organizations that aim to improve their image in the market, maximize share value, acquire competitive advantages (such as reducing the cost of capital), providing greater

returns for its investors and obtaining greater transparency in its business. According to Fischer (2012), corporate governance can be translated into an instrument or mechanism for investor protection in periods of severe crises.

Investors tend to ignore the lack of good corporate governance during a period of economic growth. However, when a crisis starts and expected returns decrease significantly, they start to consider governance weaknesses, especially in countries where there is weak protection for minority shareholders' rights (Liu, Uchida & Yang, 2012). One of the reasons why some countries and companies behave better than others in times of crisis involves differences in the strength of legal institutions and the structure of governance mechanisms that prevent the expropriation of minority shareholders.

It is in this sense that the discussion of the relationship between corporate governance and business performance is inserted, given its ability to signal to investors greater reliability of the practices developed by the organization, which now requires a lower rate of return, resulting in a lower cost of capital and greater liquidity in the market (Camargo & Barbosa, 2006).

When a company adheres to corporate governance practices, given the commitment to greater transparency in the communication of internal information to the market, it ends up reducing information asymmetry and being better priced by investors, resulting in better performance of stock prices (Clemente *et al.*, 2014). In addition, in the face of events that result in negative shocks in the return, the incentives perceived by management and by controlling shareholders of appropriation of minority shareholders' resources are reduced, while in times of positive shocks, they are inclined to promote an increase in performance. (Srour, 2005). In other words, in times of crisis, companies with solid corporate governance tend to have better credibility and therefore face softer barriers in the capital market.

Rajan and Zingales (1998) report that investor demand for corporate governance practices is less in contexts of economic prosperity. However, in times of crisis, demand increases, and it is common to undo their positions in countries where there is little legal commitment between shareholders and the controller, further affecting the performance of companies in this context.

2.3 Corporate governance in Brazil

For Rossetti and Andrade (2014) and Garcia and Tavares (2017), different from the existing corporate governance in the United States, which expanded to try to resolve conflicts of interest between shareholders and agents, CG in Brazil started to take shape when investors developed countries started to increase their investments beyond their borders. Thus, they began to pressure the stock markets of emerging countries (among them, Brazil) for a more transparent administration. In order to stimulate the interest of investors and to value companies, companies are beginning to adopt good governance practices.

In response to the growth needs and diversification of the Brazilian market, including the need for equal rights between minority and majority shareholders, for an adequate and qualified board structure and for greater transparency of the information provided by the companies, Bovespa created the segments listing specials: New Market, Level 2 and Level 1. Adherence to one of the different levels of governance is voluntary and must be done by signing a specific contract, assuming the commitment to adopt the requirements imposed by each level.

Although there are some equal parameters for the different listings, the higher the level, the higher the governance standards that must be adopted, adding value to the company and attracting more investors, since good governance practices increase the company's credibility and decrease the agency problems. According to Besarria *et al*. (2015), the different levels of corporate governance attract investors to organizations, generate value for the company, lower the cost of capital and, consequently, cause greater profitability, since improving the quality of information provided by organizations and expanding corporate rights reduces the uncertainties in the valuation and investment process and, therefore, the risk.

Despite the costs for organizations to adhere to one of the differentiated segments of CG, Pitzer (2011) points out that obtaining returns, by adhering to differentiated controls of CG, is a strong motivator for companies, as this return can mean greater liquidity shares, better market valuation, higher share price, among others. For Aguiar *et al.* (2004), the more efficient the CG is, the more interesting the company becomes from the perspective of the investor, as he will have greater security in decision making.

Given this context, it is expected that, when they fit into a higher level of CG, companies perform better compared to those of lower level, because all the mechanisms established are intended to improve the quality of information provided by publicly traded companies to its shareholders, as well as expanding corporate rights that reduce uncertainty in the investment risk assessment process. Thus, reducing such uncertainties tends to increase the stock price, which in turn decreases the volatility of assets, strengthening the capital market as an option as a source of investments.

2.4 Related studies

Studies that seek to investigate the relationship between CG and company performance have mixed conclusions, depending on the sector and period considered.

For Srour (2005), corporate governance directly affects the returns of firms in times of crisis. According to the author, evidence was found that prove that in times of crisis, companies with better governance practices (Level 2 and New Market) showed a relatively lower fall in their returns and less volatility compared to those classified at other levels.

Francisco and Santos (2014) sought to verify whether the assumption of higher levels of corporate governance provides companies in the electricity sector in Brazil with a better performance compared to those classified in lower levels between the period of June 2009 until June 30, 2011. The results did not confirm the initial expectation that higher-level companies would perform better.

For some authors (Bernardino *et al.*, 2015; Silva *et al.*, 2016) the sector can positively influence the relationship between the level of corporate governance and the share performance. This is possibly due to the fact that these sectors have different types of stakeholders, with different types of knowledge. Thus, it is possible that there is a difference in the "learning" of the stakeholders (level of knowledge of investors and other stakeholders) between the sectors of the economy, and the information disclosed through the mechanisms of CG can influence the decisions of investors and managers about administrative improvements that result in better results.

Silva *et al.* (2016), from the risk versus return comparison, when researching the performance (in the period from 2009 to 2014) of the companies that bring together the industrial and banking sectors of BM&FBOVESPA, conclude that, on average, the companies that have adopted differentiated corporate governance in the management process tend to perform better compared to companies that have not adopted them.

When analyzing the correlation between corporate governance and share performance, guided by the purpose of assessing the degree to which the classification of the CG level (L1, L2 and NM) and the behavior of shares in the consumer and retail sector listed in B3 (Brazil, Bolsa, Balcão) can be mutually influenced, Rocha *et al.* (2017) found that companies listed with CG did not show returns statistically higher than traditional ones. However, companies with CG had a lower risk compared to companies listed in the traditional segment.

Freitas *et al.* (2018) analyzed the influence of CG on the economic and financial performance of banks listed in B3, compared in an environment with and without an economic crisis. According to the authors, there is a significant, but negative, relationship between CG and performance, which leads to the rejection of the hypothesis that participating in special segments of corporate governance at B3 positively influences the performance of banks. There would be a

non-significant relationship between performance and crisis, and a significant one between CG and crisis.

From the above, it is clear that there are several possibilities for research on the topic, since the studies developed have different results, especially when it comes to different sectors of the economy and different economic contexts that tend to influence, simultaneously with CG practices, the performance of companies

3 METHODOLOGICAL PROCEDURES

To carry out this study, companies from the trade sector were used and held shares traded in the period from 2015 to 2018, according to the classification of B3 and Comdinheiro.

Thus, with the methodological decision to work with a stratified sample from the same sector, the objective was to verify whether the adoption of good governance practices can minimize the effects of the crisis on the performance of company shares, given that companies in the same sector are subject to the same macroeconomic and legal conditions. Therefore, the performance differences between them can be justified, apparently, by the characteristics and results of the management of each entity.

The sectorial methodology is also justified, because, as already evidenced (Bernardino *et al.*, 2015; Silva *et al.*, 2016), the sectors of the economy have stakeholders with different levels of knowledge and maturity and the information disclosed by companies can influence investors' decisions in the face of changes in dynamics and managerial improvements that will maximize the organization's performance.

The sample comprises the period between 2015 and 2018 for two reasons: first, to seek current evidence on the subject; second, because it is the longest period of recession in GDP (economic crisis 2015/2016) in the country in the last 10 years, followed by a period of progress (without crisis 2017 and 2018), as shown in Figure 1.

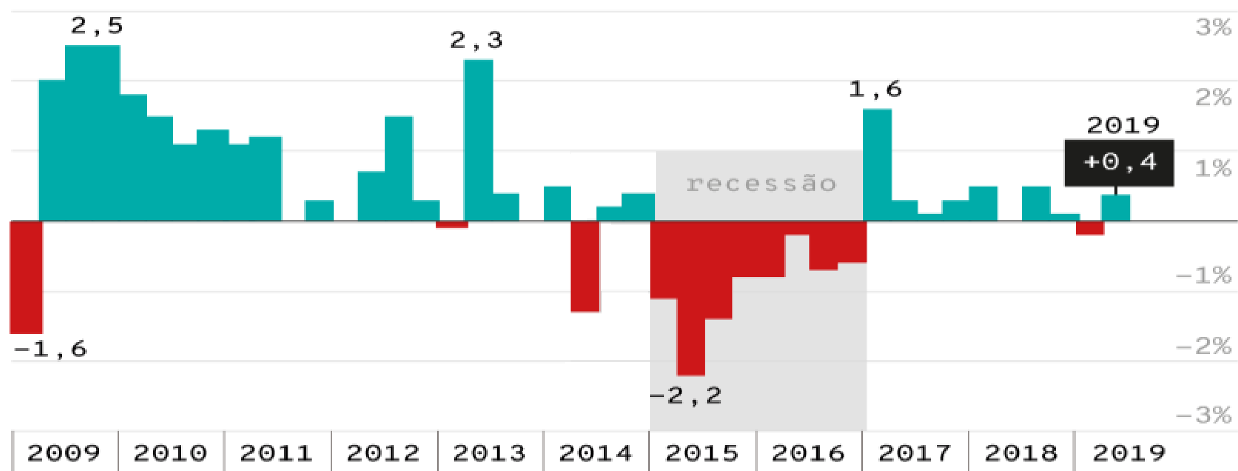

Figure 1. Brazil's quarterly GDP over 10 years (2009 to 2018)
Source: GDP of Brazil: history and evolution in charts - people's gazette.

Initially, 26 companies were identified, among which three were not listed on B3, one did not have shares traded during the entire period, one did not have shares traded in the crisis period and one did not have shares traded in most quarters. The final sample consisted of 20 companies and 319 observations, as shown in Table 1. The final number of observations results from the calculation of the companies' quarterly returns. Only one company did not have publicly traded shares in the first quarter of 2015.

Table 1
Sample Definition

Sample delimitation criteria	Total	Observations
Trade Sector Companies with shares traded and data available at Comdinheiro	26	415
Exclusions		
(-) Companies without assets recognized in B3	3	48
(-) Companies without shares traded during all or most of the quarters from 2015 to 2018	3	48
Total final sample	**20**	**319**

Source: Prepared based on the data of the companies studied, available in the databases of Comdinheiro® and B3 (2019).

Data collection was carried out on the B3 website and on Comdinheiro's database. The sample was stratified into two subgroups, namely: companies that participate in any differentiated CG segment (L1, L2 and NM) from B3 and companies that do not participate in any of the segments. Of the 20 companies, six do not participate in the CG segments, while the other 14 participate in the following levels: one company in L1, one company in L2 and 12 companies in NM. Segmentation allows to compare the efficiency between the group with CG and without CG.

To meet the objective of this study, researchers 'models were used that propose to analyze the performance of company shares. First, the methodology used by Rocha *et al.* (2017) to calculate the returns for each period, according to Equation 1. It was decided to calculate the quarterly return for the period so that it could coincide with the GDP disclosure period.

$$R_{it} = ln \frac{P_{it}}{P_{it-1}} \tag{1}$$

On what:
R_{it} = is the return of the share of company i, at time t
P_{it} = closing price of the share of company i, at time t
P_{it-1} = closing price of company i, at time t before

In order to assess the possible interactions among crisis, corporate governance and performance, panel data was used to estimate the regression coefficients, according to Equation 2.

$$DESEMP_{it} = \beta_0 + \beta_1 LPA_{it} + \beta_2 dc_{it} + \beta_3 gc_{it} + \varepsilon \tag{2}$$

On what:
$DESEMP_{it}$ = share performance (return on shares) of company i, at time t, measured according to Equation 1
LPA_{it} = earnings per share of company i, at time t
dc_{it} = *crisis dummy of company i, at time t, assuming number 1, for the quarters of 2015 and 2016 ('With_Crisis' period) pe, or number 0, for the data referring to the quarters of 2017 and 2018 ('Without_Crisis' period)*
gc_{it} = *corporate governance dummy, which assumes the value 1, if the company integrates one of the B3 CG levels, or the value 0, if it is not a member*

Statistical significance and negative sign for ß2 are expected, denoting negative influence of periods with crisis in performance, and statistical significance and positive sign for ß3, denoting influence of CG practices on performance.

Secondly, an interactive variable between economic crisis and corporate governance (cd*cg) was added to the model, obtained by the product of the two independent dummy variables, incrementally estimating the role of corporate governance practices in mitigating the effects of the economic crisis on business performance. Therefore, the regression model represented by Equation 3 was achieved:

$$DESEMP_{it} = \beta_0 + \beta_1 LPA_{it} + \beta_1 dc_{it} + \beta_3 gc_{it} + \beta_4 (dc_{it} * gc_{it}) + \varepsilon \quad (3)$$

Thus, the variable of interest in this study is *cg* and its interaction with *cd*. For the $ß_3$ coefficient, statistical significance and a positive relationship are expected, and for the $ß_4$ coefficient, which analyzes the relationship between the performance of companies and the use of corporate governance practices in times of crisis, compared to those that did not use these practices, statistical significance and a positive sign are expected.

4 PRESENTATION AND ANALYSIS OF RESULTS

This section depicts the results of the data analysis. Initially, a descriptive analysis of the variable “return on shares” of companies in the trade sector with and without corporate governance was carried out, in different economic scenarios.

Table 2
Descriptive statistics of variables

	With-Crisis (2015-2016)	Without-Crisis (2017-2018)
Average		
Of the sector	−0.013753	0.024318
Without-cg	−0.0248	−0.02442
With-cg	−0.00912	0.045206
Standard deviation		
Of the sector	0.290469	0.2647368
Without-cg	0.272669	0.317882
With-cg	0.298686	0.236937

Source: Prepared based on the data of the companies studied, available in the databases of Comdinheiro® and B3 (2019).

Based on the descriptive statistics of the share returns shown in Table 2, it is observed that the average of the companies listed in the 'Without-Crisis' period (0.024318) shows a return on shares higher than the average of the 'With-Crisis' period (−0.013753). In other words, share returns were reduced in the period of economic crisis. Such evidence is in line with the perspective of Freitas *et al.* (2018), according to which, in an environment of economic crisis, there is a tendency to reduce performance and confidence among economic agents.

When evaluating the average of share returns in the types of listing, the companies that integrate some special segment of corporate governance of B3 (With-CG) present returns superior to the returns of the companies that do not integrate it (Without-CG). In view of this analysis, it was possible to find an association between the return on shares through capital gains or losses and the level of corporate governance of companies listed in the B3 trade sector. The

results of this variable for the trade sector are in line with the evidence obtained by Silva *et al.* (2016).

Both in the 'With-Crisis' period and in the 'Without-Crisis' period, the average return on shares of companies in the trade sector with 'With-CG' was higher than that of 'Without-CG' companies. This result goes against the study by Freitas *et al.* (2018) on the banking sector. It can also be observed that in both periods the companies that did not fit any level of corporate governance presented negative returns in general.

On average, according to the results of Table 3, which contains an analysis of the entire period, it can be seen that the shares of companies in the trade sector listed in B3, framed in a differentiated level of corporate governance (0.018044), presented better performance (return) than the shares of companies without CG (−0.024608). Thus, through descriptive analysis, it can be seen that corporate governance is positively related to the share performance.

Table 3
Descriptive statistics for the entire period

Segment	Average	Standard deviation
Without-cg	−0.024608	0.2948010
With-cg	0.018044	0.2703538

Source: Prepared based on the data of the companies studied, available in the databases of Comdinheiro® and B3 (2019).

Subsequently, to strengthen the analyzes, since only descriptive analysis is not sufficient to test the formulated hypotheses, the parameters for the models represented in Equations 2 and 3 were estimated using panel data. In both estimates, the tests showed that the OLS was the most appropriate method.

Table 4 shows the estimated parameters for model 1 (Equation 2):

Table 4
Model 1 Validation

Grouped OLS using 319 observations *Dependent variable: R*			
	EPS	***cd***	***cg***
βi	0.0307373	−0.0336906	0.0742
Standard error	0.00953998	0.0306674	0.0349
Ratio t	3.222	−1.099	2.127
p-value	0.0014	0.2728	0.0342
Sign (Sig.)	***		**
R^2 = 0.041278	R^2adjusted = 0.032147	Akaike criterion = 82.28637	

Test to differentiate groups of intercepts on the x-axis = 0 - Null hypothesis: the groups have the same interception on the x-axis = 0. Test statistic: F (3.315) = 4.520747 with p-value (F) 0.004032

Conclusion	Fixed	
Nonlinearity Test[a]	0.190887	Null hypothesis: the relationship is linear (not rejected)
Ramsey RESET[b]	0.635548	Null hypothesis: the specification is adequate (not rejected)
Durbin-Watson[c]	2.033196	
Whited test[d]	0.185201	Null hypothesis: without heteroscedasticity (not rejected)
Jarque Bera[e]	1.50206e-08	Null hypothesis: the error has a Normal distribution (rejected)

Note: The statistics of the tests were shown in the table, the significance of which is presented by means of superscript letters.

Source: Prepared based on data from the companies studied, available in the Comdinheiro and B3 databases.
* Significant at 10%. ** Significant at 5%. *** Significant at 1%.
[a] Tests the hypothesis of the existence of a linear relationship (p-value is shown)
[b] Tests the hypothesis of adequate specification - no omission of relevant variables (p-value is shown).
[c] Tests the hypothesis of autocorrelation of residues.
[d] Tests the hypothesis of homoscedasticity; in the presence of which standard errors were estimated with correction for White's heteroscedasticity. The hypothesis of multicollinearity was also rejected, given that all variables had a variance inflation factor (VIF) statistic less than 10 (p-value is shown).
[e] Tests the hypothesis of the normality of the residuals (p-value is shown). According to the central limit theorem and considering that 319 observations were used, this assumption was relaxed, coupled with the fact that the parameters will not be used to make predictions (inferences).

Source: Prepared based on data from the companies studied, available in the databases of Comdinheiro® and B3 (2019).

In the case of model 1, the results point to a positive and significant 5% relationship between the CG and the return on shares. That is, participating in special corporate governance segments at B3 positively influences the performance of company shares in the trade sector listed on B3. In general, the results demonstrate that companies that have adopted differentiated corporate governance practices tend to perform better, compared to those that have not adopted them, as observed in Silva *et al.* (2016).

The independent variables of earnings per share (EPS) and corporate governance dummy are statistically significant at 1% and 5%, respectively. The economic crisis variable, however, was not significant. Therefore, there is no statistically significant difference between returns in crisis years compared to years without crisis. It can then be inferred that EPS and corporate governance are related to performance, as measured by the return on shares of companies in the trade sector, regardless of the economic situation.

Additionally, the regression was analyzed with the increment of the interactive variable between the independent dummies of economic crisis and corporate governance (cd*cg), according to model 1 (Equation 2). The results are shown in Table 5:

Table 5
Model 2 Validation

	EPS	***cd***	***cg***	***cd*cg***
βi	0.0309604	0.00823357	0.1040	−0.0596553
Standard error	0.00954642	0.0562201	0.0484	0.0670
Ratio t	3.243	0.1465	2.15	−0.8899
p-value	0.0013	0.8837	0.0323	0.3742
Sign (Sig.)	***		**	
R^2 = 0.043689	R^2adjusted = 0.031507	Akaike criterion = 83.4829		

Test to differentiate groups of intercepts on the x-axis = 0 - Null hypothesis: the groups have the same interception on the x-axis = 0. Test statistic: F (4. 314) = 3.586289 with p-value (F) 0.00707

Conclusion	Fixed	
Nonlinearity Test[a]	0.192025	Null hypothesis: the relationship is linear (not rejected)
Ramsey RESET[b]	0.525702	Null hypothesis: the specification is adequate (not rejected)
Durbin-Watson[c]	2.038433	
Whited test[d]	0.0409775	Null hypothesis: without heteroscedasticity (not rejected at 10%; rejected at 5 and 1%)

Jarque Bera[e]	3.01E-08	Null hypothesis: the error has a Normal distribution (rejected)

Source: Based on the data of the companies studied, available in the databases of Comdinheiro® and B3 (2019).

The interactive variable of economic crisis and corporate governance (cd*cg) was not statistically significant in the model. In other words, companies with differentiated levels of corporate governance do not show statistically significant differences compared to those that do not integrate these levels, when considering the environment with crisis. The other results had no changes in relation to the regression in Table 4.

Even though results that point to a positive relationship between these variables are common, the practice does not always reflect the applied theory with respect to the expectation that companies with better CG practices perform better. Some studies contradict this logic, showing null results or a negative relationship between CG and performance, like Freitas *et al.* (2018), Costa and Camargos (2006) and Rocha *et al*. (2017).

The data obtained attest to the theoretical discussion in this work, according to which corporate governance mitigates risks related to the business and those arising from conflicts of interest between principal-agent and minority shareholders (principal-principal), in addition to maximizing performance through greater equity return due to greater transparency, equitable treatment between owners, accountability and corporate responsibility, principles of corporate governance and demands from market participants, especially in emerging markets characterized by weak protection for shareholders.

5 FINAL CONSIDERATIONS

The capital market is one of the great allies in a country's economic development. To strengthen it, it is necessary to allocate resources to companies in different sectors that are able to receive such investments. If these entities make progressive gains, the national economy benefits, as more wealth is generated.

In order to have a strong and operating capital market, similar to that of developed countries, investments are needed to make it more liquid, in addition to investor protection, whether through laws or governance practices that provide the necessary security to attract capital.

The investor who chooses to invest in the stock market has the prospect of a higher return on his asset, taking into account the risks inherent to his choice. Therefore, the allocation of resources is guided by the availability of information on investment options that, essentially, need to be reliable. Otherwise, without means to guarantee the reliability of the information and to ensure that all relevant information is being disclosed to minimize informational asymmetries, these investors end up demanding higher rates of return and offering a discount on the business value, generating losses in their performance.

One of the main arguments for the creation of differentiated levels of corporate governance - Level 1, Level 2 and New Market - was the change in the company's institutional image, which would be caused by the compliance with strict corporate governance standards, creating a negotiation environment that at the same time stimulate the interest of investors - through greater protection - and the valuation of companies.

Corporate governance, therefore, seems to be fundamental to provide security to capital contributions, in addition to being a tool for controlling and equity of rights and duties, aligning the interests of stakeholders and aiming, with this, the development of the entity and the return to investors, because using the best governance practices provides greater transparency in the decisions that guide the organization and in the information provided for decision making.

However, some research shows mixed results, according to which companies with best CG practices do not always perform the best. Therefore, further investigations on the subject are necessary.

Given this context, this study aimed to analyze the relationship between corporate governance and the performance of company shares in the commercial sector listed in B3, in an environment with and without economic crisis.

The results of this research are in line with the theoretical precepts according to which the actions of organizations with differentiated corporate governance practices tend to perform better, probably due to the greater transparency of the information provided, the equal treatment of investors and measures to monitor agents. Thus, in response to the central question of this research, corporate governance practices, represented by differentiated levels, have a positive relationship with the share performance. However, it was not possible to state, as expected, that such practices mitigated the negative effect of the economic crisis on performance.

Therefore, this research contributes to disseminate the importance of implementing good CG practices as a way of providing greater transparency and, consequently, greater stakeholder engagement, since such practices reflect in the investors' perception of the risk linked to the investment, as well as collaborate with the disclosure of information and its subsequent use in the allocation of investor resources, providing better pricing of the assets of companies that adopt such practices and, in a macro way, greater market liquidity.

However, it is worth noting that the best corporate governance practices do not in themselves produce better performance, as this is not a business model, but a way of managing it and providing reliable signals to the market, without necessarily interfering with operational decisions of the corporation and its economic fundamentals.

This study was mainly limited by the small number of companies in the sector surveyed and the lack of information necessary to carry out the study, resulting in a reduction in the sample.

It is important to note that the results of this study are restricted to the sample and the period investigated, and cannot be generalized to other sectoral or economic contexts that could interfere with the variables used. Therefore, the evidence found and discussed in this study must be considered in view of the limits of the applied methodology, the period and the sample used.

Given this context, it is necessary to emphasize that the conduct of other research is important to give greater depth to the topic. They may consider other sectors, a longer period that covers other phases of the economy, specific governance practices, as well as possible comparison of the role of corporate governance in different markets.

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