



ENVIRONMENTAL AND INTERNAL FACTORS OF THE FIRM AND THE FINANCIAL PERFORMANCE OF COMPANIES: A LOOK AT COMPANIES LISTED ON B3 FROM THE PERSPECTIVE OF CORRUPTION AND POLITICAL-ECONOMIC STABILITY

 Anna Giulia Vasconcelos Gobbi¹  Luciana Carvalho²  Marcelo Fodra³

Abstract

Objective: to investigate the impact of corruption control and political-economic stability, combined with internal factors, defined by current liquidity, capital investments, size and debt, on the ROA, ROE and GI of publicly traded companies, listed on B3, in the period from 2011 to 2018.

Methodology: multivariate regressions were applied with panel data using fixed effects on a sample of 270 publicly traded companies operating in B3 between 2011 and 2018. The sample considered annual, public data collected in the Economática database.

Originality: relatively few national studies dealt with the impact of corruption control mechanisms and political and economic stability on the financial performance of publicly traded Brazilian companies listed on B3. In addition, this work contributes as it seeks to expand the discussion on the analysis of business performance by incorporating an indicator of the companies' market value, defined by the degree of intangibility of the assets of the companies.

Results: the corruption control mechanisms showed a positive correlation with the ROA and ROE, as expected, and a negative correlation with the GI, contrary to expectations, while the political and economic stability index, current liquidity, size and indebtedness were positively correlated with the ROA and ROE. Capital investments were not correlated with the financial performance of the companies studied.

Theoretical contribution: to reinforce contemporary discussions on the influence of institutional factors, such as corruption and political and economic instability, and intra-firm factors, such as current liquidity, capital investments, size and indebtedness, in relation to economic-financial performance of companies, offering evidence for the formation of a theory capable of explaining the mechanisms of action of the perception of corruption and political-economic instability, together with microeconomic elements, on the performance of organizations.

Keywords: corruption control; political and economic stability; performance

Fatores ambientais e internos da firma e o desempenho financeiro das empresas: um olhar sobre as empresas listadas na B3 sob a ótica da corrupção e da estabilidade político-econômica

Resumo

Objetivo: investigar o impacto do controle da corrupção e da estabilidade político-econômica, aliados a fatores internos, definidos pela liquidez corrente, investimentos de capital, tamanho e endividamento, sobre o ROA, ROE e GI das empresas de capital aberto, listadas na B3, no período entre 2011 até 2018.

Metodologia: foram aplicadas regressões multivariadas com dados em painel usando efeitos fixos sobre uma amostra de 270 empresas de capital aberto, operantes na B3, entre 2011 e 2018. A amostra considerou dados anuais, públicos, coletados na base de dados Economática.

Originalidade: relativamente poucos trabalhos nacionais trataram do impacto dos mecanismos de controle de corrupção e a estabilidade política e econômica sobre o desempenho financeiro de empresas brasileiras de capital aberto, listadas na B3. Além disso, este trabalho busca contribuir à medida que procura ampliar a discussão sobre as análises acerca da performance empresarial ao incorporar um indicador de valor de mercado das empresas, definida pelo grau de intangibilidade dos ativos das firmas.

Cite as / Como citar

American Psychological Association (APA)

Gobbi, A. G. V., Carvalho, L., & Fodra, M. (2023). Environmental and internal factors of the firm and the financial performance of companies: a look at companies listed on B3 from the perspective of corruption and political-economic stability. *Iberoamerican Journal of Strategic Management (IJSM)*, 22(1), 1-33, e21787. <https://doi.org/10.5585/2023.21787>

Resultados: os mecanismos de controle de corrupção apresentaram correlação positiva com o ROA e ROE, conforme o esperado e negativa com o GI, contrariando as expectativas, enquanto o índice de estabilidade política e econômica, liquidez corrente, tamanho e endividamento obtiveram correlação positiva com o ROA e o ROE. Os investimentos de capital não se mostraram correlacionados com o desempenho financeiro das empresas estudadas.

Contribuição teórica: reforçar as discussões contemporâneas sobre a influência dos fatores institucionais, como a corrupção e a instabilidade política e econômica e de fatores intra-firma, tais como liquidez corrente, investimentos de capital, tamanho e endividamento, em relação ao desempenho econômico-financeiro das empresas, oferecendo evidências para a formação de uma teoria capaz de explicar os mecanismos de ação da percepção de corrupção e instabilidade político-econômica, em conjunto com elementos de ordem microeconômica, sobre a performance das organizações.

Palavras-Chave: controle de corrupção; estabilidade política e econômica; desempenho.

Factores ambientales e internos de la firma y el desempeño financiero de las empresas: una mirada a las empresas listadas en B3 desde la perspectiva de la corrupción y la estabilidad político-económica

Resumen

Objetivo: investigar el impacto del control de la corrupción y la estabilidad político-económica, combinados con factores internos, definidos por la liquidez actual, las inversiones de capital, el tamaño y la deuda, en el ROA, ROE y GI de las empresas que cotizan en bolsa, listadas en B3, en el período a partir de 2011 a 2018.

Metodología: se aplicaron regresiones multivariadas con datos de panel utilizando efectos fijos sobre una muestra de 270 empresas públicas que operaron en B3 entre 2011 y 2018. La muestra consideró datos públicos anuales recopilados en la base de datos Economática.

Originalidad: relativamente pocos estudios nacionales abordaron el impacto de los mecanismos de control de la corrupción y la estabilidad política y económica en el desempeño financiero de las empresas brasileñas que cotizan en bolsa y cotizan en B3. Además, este trabajo contribuye porque busca ampliar la discusión sobre el análisis del desempeño empresarial al incorporar un indicador del valor de mercado de las empresas, definido por el grado de intangibilidad de los activos de las empresas.

Resultados: los mecanismos de control de la corrupción mostraron una correlación positiva con el ROA y el ROE, como se esperaba, y una correlación negativa con el GI, contrario a lo esperado, mientras que el índice de estabilidad política y económica, la liquidez actual, el tamaño y el endeudamiento obtuvieron una correlación positiva con el ROA y el ROE. Las inversiones de capital no se correlacionaron con el desempeño financiero de las empresas estudiadas.

Contribución teórica: reforzar las discusiones contemporáneas sobre la influencia de factores institucionales, como la corrupción y la inestabilidad política y económica, y factores intraempresariales, como la liquidez actual, las inversiones de capital, el tamaño y el endeudamiento, en relación con el desempeño económico-financiero de las empresas, ofreciendo evidencias para la formación de una teoría capaz de explicar los mecanismos de acción de la percepción de corrupción e inestabilidad político-económica, junto con elementos microeconómicos, sobre el desempeño de las organizaciones.

Palabras Clave: control de la corrupción; estabilidad política y económica; rendimiento.

Cite as / Como citar

ABNT 6023/2018

GOBBI, Anna Giulia Vasconcelos; CARVALHO, Luciana; FODRA, Marcelo. Environmental and internal factors of the firm and the financial performance of companies: a look at companies listed on B3 from the perspective of corruption and political-economic stability. *Iberoamerican Journal of Strategic Management (IJSM)*, v. 22, n. 1, 1-33, e21787, 2023. <https://doi.org/10.5585/2023.21787>

¹ Graduated in Business Administration from the Faculty of Management and Business - FAGEN - Federal University of Uberlândia / Uberlândia, MG - Brazil

² Professor at the Department of Finance at the Faculty of Management and Business - FAGEN - Federal University of Uberlândia / Uberlândia, MG - Brazil

³ Professor Doutor do Departamento de Finanças da Faculdade de Gestão e Negócios - FAGEN / Federal University of Uberlândia / Uberlândia, MG - Brazil - marcelo.fodra@ufu.br

1 INTRODUCTION

Companies are created with expectations of lasting and thriving (Sarquis & Voese, 2014), but it is known that endogenous and exogenous factors may influence their performance, particularly issues such as corruption and political and economic instability, regardless of them being private, state-owned or publicly traded (Lee, Wang & Ho, 2020; Jain, 2020; Guan, Xu, Huo, Hua & Wang, 2021). Corruption may be intrinsic to social relationships and widespread among all sectors (Boll, 2010), increasing through practices associated with gaining advantages that are able to affect other participants in the market, such as bribery, fraud, misappropriation of resources, and extortion (Santos, 2017). Corruption has a negative effect on the quality of public service, private investments and the performance of companies (Santos, 2017), contributing to establishing a scenario of political instability (Perondi, 2017). In turn, economic stability leads to a sensation of safety for markets and their agents, favoring the allocation of resources into projects and the mobilization of capitals, contributing to a reduction in risks and a facilitation of transactions (Creel, Hubert & Labondance, 2015). On the other hand, political instability causes damage to investments, compromising their attractiveness and leading to business interruption (*World Bank Group*, 2013), prompting a withdrawal of national and foreign investment, creating barriers to growth, and impairing the development of companies (Stoffel, Theis & Schreiber, 2019).

Recent academic literature cites examples of studies discussing the impact of corruption regarding the financial performance of companies (Araújo, Soeiro, Matos & Bautista, 2020), the economic environment (Zeeshan et al., 2022), economic growth (Krifa-Schneider, Matei & Sattar, 2022), and the distortions caused in the business environment. In addition, current studies have empirically evaluated the influence of political and economic instability on the financial performance of organizations (Alam, Farjana & Houston, 2023) and on the allocation of recourses by banks (Juelsrud & Larsen, 2023). However, recent empirical studies on the repercussion of the property or control of intangible assets in relation to economic and financial performance have used the degree of intangibility as an explanatory variable for performance (Sharma, Shukla & Raj, 2023; Nguyen-Ahn et al., 2022) and for the market value of companies (Azamat, Galiya, Bezhan & Nurdana, 2023). Therefore, the research gap that this study intends to fill is the analysis of the impact of the environmental factors corruption and political and economic stability on the financial performance of traded companies in the B3 between 2011 and 2018, from the point of view of ROA, ROE and the Degree of Intangibility.

Taking into account that the exogenous factors corruption and political and economic instability affect decisions made by managers and organizations, the following research question arises: what is the impact caused by the perception of control of corruption and political and economic stability on the economic and financial performance and on the degree of intangibility in Brazilian companies traded in the B3? In light of the above, this study sought to investigate the impact of corruption control and political-economic stability, combined with internal factors such as current liquidity, capital

investments, size and debt, on the ROA, ROE and DI of publicly traded companies listed in the B3 in the period from 2011 to 2018.

The relevance of this study lies in the importance given to the empirical research of corruption and political and economic stability in academic literature in recent years (Araújo et al, 2020; Zeeshan et al., 2022; Azamat, et al., 2023), considering the effect of these factors on the business environment and, consequently, on the economic and financial performance and market value of companies. In addition, understanding the effect of the target variables on the performance and market value of companies will enable them to establish strategies for controlling and mitigating the risks caused by corruptive practices and by environmental instabilities, preserving said performance and market value.

The intended theoretical contribution consists of furthering contemporary discussions on the influence of environmental market factors such as corruption and political and economic instability on the economic and financial performance of companies, providing input for the development of a line of reasoning capable of explaining the action mechanisms of the perception of corruption and political and economic instability on the performance of organizations. As a practical contribution, this study seeks to establish guidelines for the recognition of the financial impacts caused by the measures intended to fight corruption and by the uncertainties brought about by political and economic instability, enabling companies to adopt effective strategies to protect business profitability, maintain adequate levels of the intangible assets required to safeguard competitive advantages, and establish entry or exit barriers associated with each type of enterprise.

2 THEORETICAL FRAMEWORK

2.1 The economic and financial performance of companies

Companies must seek to meet the profit expectations of their owners and investors in relation to the resources invested through measures that take into account the maximization of wealth for the partners and the well-being of the society (Assaf, 2021).

Financial performance is related to measures of subjective nature taken by company managers seeking to achieve their goals (Peters & Bagshaw, 2014). Financial performance analyses take into account the use of indicators in the form of indices, which have important advantages for assessment since they facilitate understanding between companies and industry sectors (Ribeiro, Macedo & Marques, 2012).

From the perspective of administrators, profitability-based performance analyses focus on the use of the total assets to generate profit and on the ability to remunerate the equity capital invested by shareholders (Helfert, 2000). The Return on Assets (ROA) indicates the operational efficiency to generate profit based on the assets managed by administrators (Damodaran, 2004), while Return on Equity (ROE) demonstrates the company's ability to remunerate the capital invested by partners (Martins, Diniz & Miranda, 2018).

Currently, there is an understanding that companies are part of a system related to a numerous group of stakeholders that is not limited by only shareholders and controllers (Okafor, Adeleye & Adusei, 2021). Literature on financial performance has paid attention to the impact of several factors on the performance of organizations, particularly environmental and social responsibility (Okafor, Adeleye & Adusei, 2021), corporate governance (Machado, Prado, Rauber, Carvalho & Santos, 2020), adoption of cutting-edge technologies such as block-chain (Sharma, Shukla & Raj, 2023), exposure to sovereign rating risks (Jesuka & Peixoto, 2022), efficient energy production in emerging markets (Schabek, 2020), management of intangible assets (Moura, Barbosa, Schio & Mazzioni, 2020), the impact of paying bribes to public agents (Jain, 2020), political and economic uncertainties (Hou, Chan, Dong & Yao, 2022), and the action of macroeconomic variables (Juelsrud & Larsen, 2023).

Intangibility is a characteristic that confers value to companies by providing a competitive distinction within a market, leading to a difference between market value and accounting value (Nascimento, Oliveira, Marques & Cunha, 2012). In modern times, organizations have implemented a strategic vision regarding their intangible assets, given their ability to confer competitive distinctions and generate competitive advantages in relation to the competition (Faria, Peixoto, Carvalho & Borsatto, 2020). In the field of empirical research, several studies have focused on analyzing the relationship between business performance and intangible assets, establishing an interface between Accounting, Marketing and Finance in order to improve the calculation of the impact of intangible assets on financial performance (Ferdaous & Rahman, 2019).

2.2 Corruption, political and economic instability, and research hypotheses

Companies are inserted in a business environment composed of external forces and institutions that may affect their development (Robbins, 2001), defining their life cycle and establishing parameters for the level of complexity of the economy regarding bureaucratic procedures for businesses (Cavalcante, 2015). An analysis of the business environment must take into account the actions and policies of the government, since they exert an influence over this environment and over the companies participating in it, affecting their strategy at several levels (Rau, 2001; Porter, 1986).

The economy may be directly affected by corruption levels, causing an increase in the perception of uncertainty and risk in the market, leading to a reduction in foreign and national investments, and compromising economic and social development (Mauro, 1995). The increment of uncertainty and market risk are reflected on the prices of assets and have a negative effect on the value of shares of publicly-traded companies (Lee & Ng, 2006; Davidson, Worrel & Garrison, 1988).

One of the issues influencing decision making by companies is corruption (Araújo et al., 2020), a phenomenon that troubles all countries regardless of development level (Reis & Almeida, 2020). According to (2020), corruption has received considerable attention in academic literature since it is a problem faced by several countries, and its occurrence distorts competition, alters the foundations for incentives, and hampers development. In addition, corruption raises agency and transaction costs for

market players and changes the natural times for obtaining licenses or authorizations under the authority of public bodies, restricting entrepreneurial practices (Adomako, et al., 2021). Furthermore, corruption slows down the adjustment of the capital structure of companies, compromising optimal adjustment and generating additional transaction costs due to the delay (Hu & Shu, 2021), and it also has the potential to reduce the level of investment of companies (Pellicani, 2017). Baker, Bloom and Davis (2016) developed an index to measure political and economic uncertainty based on newspaper headlines and on the frequency of their publication, concluding that such instability affects the economy and has correlations with the volatility of share prices in the stock market, investment levels, and the increase in unemployment rates. Concurrently, Silva and Ribeiro (2021) assessed the impact of anti-corruption operations on the value of shares of companies listed in the Brazilian stock market, finding evidence that such operations have a negative effect on the market value of private companies and a positive effect on the value of public companies. Given the above, the following hypothesis seeks to capture the relationship between corruption control mechanisms and the financial performance of companies:

H1: There is a positive correlation between the presence of corruption control mechanisms in companies and their financial performance

According to Economic Theory, efficient markets have the following characteristics: an absence of endogenous elements able to affect the economic environment; an assumption that investors are rational; a postulation that none of them alone can win beyond the market or beyond the parity in the disclosure of information, so that no player might know something that the others are unaware of, which enables asset prices to adequately reflect the reality of the market (Kanzari, Nakhli, Gaies & Sahut, 2023). However, the assumption that the market is perfect is questionable. In addition to corruption, another factor influencing the corporate environment is instability, which causes investors to feel insecure and indecisive (Mordfin, 2014), causing negative effects in the performance of the economy (Formiga, Barros, Cezário e Scherer (2019). Economic instabilities arise when there is no clear indication of the maintenance or change in policies regarding taxes and regulations (Hou et al., 2022).

When instability happens in the political sphere, companies adopt a waiting stance, reducing hiring and investment and adopting more careful measures (Julio & Yook, 2012). In addition, studies have shown a negative correlation between economic instability and economic growth (Creel, Hubert & Labondance, 2015), indicating that a lack of stability in the business environment hampers the development of the economy and, consequently, of companies. There is empirical evidence that countries facing political instability issues are less likely to introduce progressive income redistribution systems to their citizens (Vu, 2022). In general, the economies of developing countries are marked by political instabilities, delaying their transition from developing to developed economies restricting the appearance of productive capacities (Ashaf, 2022). Empirical studies, such as Nunes (2017), which examined the impacts of national and international political uncertainty on the Brazilian stock market between 1985 and 2015, found that even companies that are not directly linked to governments could

be affected by the uncertainty caused by political instability, compromising their economic and financial performance. Concurrently, Guan et al (2021) investigated Chinese companies and found that political uncertainty is positively correlated with corporate technological innovation and negatively correlated with innovation of business models, suggesting that a higher level of competition in the market is important to promote innovation, particularly when there is a lot of uncertainty regarding economic policy. Therefore, the elements indicated above give rise to the second research hypothesis in this study:

H2: There is a positive correlation between the level of political and economic stability and the financial performance of companies

Liquidity plays a relevant role in the financial performance of companies and is considered an important factor for business in some periods (Zago & Melo, 2015), since the retention and maintenance of liquid assets provides companies with more possibilities to meet short-term or unexpected commitments (Hacini, Bouolenfad & Dahou, 2021), behaving as a solvency indicator (Brealey, Myers & Allen, 2013). The prevailing literature on this topic states that, even though the maintenance of liquidity imposes opportunity costs for companies (Santos, 2018), adequate levels of it reduce dependency on third-party resources (which are more costly), positively affecting their profitability (Zago & Melo, 2015).

The maintenance of liquidity allows the leveraging of strategic investment opportunities with the potential to produce profit and generate value, contributing positively to the performance of companies (Ames, Nunes & Silva, 2022; Mohammadi, Kardan & Salehi, 2018). In light of the above, the following is a hypothesis on the relationship between liquidity and profitability:

H3: There is a positive correlation between current liquidity and the financial performance of companies

A company's size is a determining factor of its financial performance and an indication of its scale, raising the expectations of investors regarding the payment of dividends and making the company's shares more coveted and valuable (Hardinis, 2019). In addition, it is understood that larger companies can be more diversified, less exposed to bankruptcy costs and financial distress, and more likely to access advantageous credit lines (Brito, Corrar & Batistella, 2007). According to Harris and Raviv (1991), due to their reputation, larger companies are able to capture resources at lower costs; furthermore, according to Nursetya and Hidayati (2020), they have a higher chance of maintaining satisfactory operating results, offering the opportunity for higher profit in the future, which supports their longevity.

Larger companies are equipped with specialized management for financial resources, reaching large-scale economies; on the other hand, they may also have more complex management structures, creating relationship barriers between sectors and making the relationship between company size and financial performance unclear (Lim, Wang & Zeng, 2018).

Given the discussions and prevailing empirical findings presented on the subject, the following is a hypothesis on the correlation between company size and financial performance:

H4: There is a positive correlation between company size and the financial performance of companies

Capital expenditures (or capital investments), known as CAPEX, represent the acquisition of new properties, facilities and equipment by companies (Berk & DeMarzo, 2020) and are correlated with the company's ability to generate profit and value for its shareholders (Karim, Albitar & Elmarzouky, 2021). Capital investment is the main lever for generating competitive advantages for highly mechanized companies that produce low-differentiation items, operating in commoditized markets with volatile prices (Moser, Isaksson, Okwir & Seifert, 2021).

According to Lim, Wang and Zeng, (2018) and Pereira, Benedicto, Prado, Carvalho and Carvalho (2021), there is evidence that capital expenditure positively affects the financial performance of companies, which gives rise to the following research hypothesis on the correlation between CAPEX and financial performance:

H5: There is a positive correlation between CAPEX and the financial performance of companies

A company's value is affected not only by its investments, but also by the combination of debt and equity that finances such investments (Damodaran, 2004). The selection of financing sources considers factors that are exogenous to companies, such as interest rates, exchange rates and elements of the local economic environment, indicating that there is a positive correlation between long-term debt and the financial performance of companies (Grzebieluckas, Marcon, Alberton & Bandeira-de-Melo, 2008). It should be noted that leverage is directly associated with the decision to invest in a company's liquid assets, taking the form of a quadratic function of positive concavity, indicating that a company may take different strategic positions according to signals from the external environment (Ma, Shen, Wang & Wu, 2022). According to Pamplona and Silva (2020), Trade-Off Theory indicates that financing costs are minimized once an optimal level of indebtedness is reached; however, indebtedness beyond the optimal level leads to incremental financing costs arising from the risk of bankruptcy, nullifying the aforementioned advantage. The aspects discussed above give grounds to the following hypothesis on the correlation between financial performance and company indebtedness:

H6: There is a positive correlation between indebtedness and the financial performance of companies

3 METHODOLOGY

3.1 Research classification and data sources

This study may be defined as a descriptive research using quantitative methods. According to Prodanov and Freitas (2013), descriptive research seeks to determine how often a given phenomenon occurs, establishing relationships between the variables involved, their causes, and interactions with other facts. The use of quantitative methods implies the collection of quantitative data, the development of processes to analyze said data, and the application of statistic methods, which enable the acquisition of information and the construction of formulas, models and predictions (Pereira, Shitsuka, Pereira & Shitsuka, 2018).

The sample collected was composed of yearly information for more than 270 companies listed in the B3 whose financial data was available in the Economática® database between 2011 and 2018. This sample did not take into account financial institutions and similar organizations. In addition, observations that occasionally showed negative equity in the target period were excluded. We also excluded observations presenting missing values that could render the calculation of any interest quotient used in econometric models unfeasible.

We chose to consider 2011 as the beginning year for research due to the obligations for publicly traded companies to comply with the rules for preparing consolidated financial statements based on the international accounting norms set by the International Finance Reporting Standards - IFRS.

To measure corruption control and political and economic stability, we used the World Bank data that composes the Worldwide Governance Indicators (WGI). These indicators are measured on a scale from 0 to 100; the higher the indicator, the lower the risk perception in a given country. This study used the annual WGI indicators starting from 2011, considering the target research period.

3.2 Statistical procedures

The data collected enabled the preparation of econometric models containing the dependent variables return on assets, return on equity, and degree of intangibility. The independent variables used for control purposes were current liquidity, capital expenditure, company size, and indebtedness. The variables intended to be explained were the indicators of perception of corruption and of political and economic stability. Information on the composition of variables and pertaining references are specified in Figure 1.

Figure 1

Characterization of the variables used in the study

Variables	Metric	Expected Correlation	Authors
Dependent Variables			
Return on Assets	ROA Ratio of net income to total assets	Dependent Variable	Formiga <i>et al.</i> , (2019).
Return on Equity	ROE Ratio of net income to equity.	Dependent Variable	Martins, Diniz and Miranda (2018); Pellicani (2017); Formiga <i>et al.</i> , (2019).
Degree of Intangibility	DI Ratio of intangible assets to total assets.	Dependent Variable	Kayo (2002); Faria <i>et al.</i> , (2020).
Explanatory Independent Variables			
Corruption Control	COR The extent to which public power is exerted for private gain.	Positive	Pellicani (2017); Donadelli, Fasan and Magnanelli (2014).
Political Stability	POS Political stability.	Positive	Muslija, Özbozkurt and Satrovic (2018).
Control Variables			
Current Liquidity	CL Ratio of current assets to current liabilities.	Positive	Coletta and Lima (2020); Jesuka and Peixoto (2022); Ma <i>et al.</i> , (2022).
Capital Expenditure	CAPEX Ratio of capital expenditure to total assets.	Positive	Fortunato, Funchal and Motta (2012)
Company Size	SIZ Natural Logarithm of total assets	Positive	Zhou, Zhang, Yang, Su and Na (2018); Pellicani (2017).
Indebtedness	IND Ratio of total debt to equity	Positive	Lima and Martins (2021).

Source: Prepared by the authors.

After data collection, we performed multiple linear regression with panel data based on the econometric model shown in Equation 1:

$$\text{Performance} = 0 + 1\text{CORit} + 2\text{POSit} + 3\text{CLit} + 4\text{CAPEXit} + 5\text{SIZit} + 6\text{INDit} + \mu\text{it} \quad (1)$$

4 RESULTS AND DISCUSSION

Table 1 shows the elements of the descriptive statistics for the dependent and independent variables analyzed in the developed models. The table lists the mean values and observed dispersion for each of the variables, as well as the minimum and maximum sample values in each case.

Table 1

Descriptive statistics for each variable

Variables	Observations	Mean	Standard Deviation	Minimum	Maximum
ROA	2.155	3.02	1.70	-0.01	520.00
ROE	2.155	3.24	2.24	1.00	684.00
DI	2.155	2.90	21.01	0.01	845.50
COR	2.155	48.25	1.91	36.06	63.03
POS	2.155	37.07	2.29	30.48	46.25
CL	2.155	3.30	20.48	0.00	26.40
CAPEX	2.155	2.52	18.82	0.001	10.25
SIZ	2.155	6.19	1.87	0.00	7.61
IND	2.155	32.95	16.06	0.01	323.40

Source: Prepared by the authors.

The results presented in Table 1 show that the mean corruption control index was 48.25 and the mean for political and economic stability was 37.07. Considering that COR and POS are given values between 0 and 100, and that the sample means are not higher than 40 points in each case, there is evidence of high levels of perception of corruption and of political and economic instability in the

business environment during the target period. It is also important to note that the standard deviation measured for COR and POS was low in comparison to the respective mean for each variable, showing that the indicators remained relatively stable and below the mean over the research period. Regarding the control variables, CL and CAPEX showed a high level of dispersion, which was not observed in other control variables. The results from the descriptive statistics for COR and POS raise an alert about the current context of the national business environment within the period analyzed in this study: a high perception of corruption and of political and economic instability. This sentiment may affect market expectations, since, according to Mankiw (2020), economic agents become more sensitive to expectations and attempt to incorporate the negative perspective about the future of the economy into prices and taxes.

Table 2 shows the results from the Pearson Correlation analyses calculated for the pairs of variables in the study. According to Martins (2001), the analysis of the association between two or more variables is often one of the purposes of empirical research. Pearson's Correlation Coefficient is defined as a measure of association that does not depend on the units of measurement of the variables, with values ranging from [-1 and +1] (Triola, 2012).

To determine the magnitude of the coefficient, we used the classification of Callegari-Jacques (2003), which considers values from 0.00 to 0.30 as a weak correlation, 0.30 to 0.60 as a moderate correlation, 0.60 to 0.90 as a strong correlation, and 0.90 to 1.00 as a very strong correlation.

Table 2

Correlations between each research variable

	ROA	ROE	DI	COR	POS	CL	CAPEX	SIZ	END
ROA	1.00								
ROE	0.74***	1.00							
DI	-0.70***	-0.14***	1.00						
COR	-0.04**	-0.01	-0.04**	1.00					
POS	-0.03	0.01	-0.3	0.82***	1.00				
CL	0.31***	0.30***	-0.07**	-0.04*	-0.04*	1.00			
CAPEX	0.24***	0.23***	0.01	-0.05**	-0.04*	0.04***	1.00		
SIZ	0.40***	0.32***	0.04*	-0.13***	-0.12***	0.22***	0.29***	1.00	
IND	0.01	-0.01	-0.01	-0.02	-0.01	-0.01	0.03	-0.23***	00

Note: a) (*) statistically significant at the 10% level; (**) statistically significant at the 5% level; (***) statistically significant at the 1% level; b) no asterisk represents a non-significant coefficient.

Source: Research results.

With a preliminary joint analysis, it was found that a significant part of the independent variables collected had a weak and significant correlation, meeting the classification criteria proposed by

Callegari-Jacques (2003). It should be noted that the pair POS and COR showed a positive and statistically significant correlation; however, as these are dependent variables in each of the individually treated models, this correlation did not affect the quality of the inferential tests of the models. The results shown in Table 2 were confirmed by applying the variance inflation factor (VIF) statistic, which did not indicate any variable with an individual value greater than 10.

Afterwards, the Chow and LM Breusch-Pagan tests were used to determine the presence of panel effects in the sample, with results rejecting the null hypothesis of the test, indicating the existence of panel effects in the set of collected data. The Hausman test was used in order to select the most adequate panel model (random effects or fixed effects). Once again, the null hypothesis of the test was rejected, indicating the application of fixed effects in the three study cases. Table 3 shows the findings as well as the diagnostic analyses:

Table 3

Coefficients determined in regressions and results of diagnostic regression analyses

Variables	ROA	ROE	DI
COR	1.66*(2.46)	1.67*(3.15)	-0.67*(0.40)
POS	0.12*(2.02)	3.43*(2.60)	0.18(0.33)
CL	1.22***(0.24)	1.41***(0.31)	-0.06*(0.04)
SIZ	34.04*(2.50)	4.75*(3.20)	-0.08*(0.41)
IND	0.83*(0.19)	0.55*(0.25)	-0.01*(0.03)
CAPEX	0.01*(0.01)	0.01*(0.01)	0.01*(0.01)
Observations	2.155	2.155	2.155
Number of Groups	270	270	270
RHO	0.38	0.45	0.15
Breusch-Pagan Test (p-value)	0.00	0.00	0.00
Hausman Test (p-value)	0.00	0.00	0.00
Econometric Modeling	Panel with Fixed Effets	Panel with Fixed Effets	Panel with Fixed Effets

Note: a) Standard errors are in parenthesis; b) (*) statistically significant at the 10% level; (**) statistically significant at the 5% level; (***) statistically significant at the 1% level; b) no asterisk represents a non-significant coefficient; d) the VIF test showed a coefficient lower than 10 for all variables; therefore, no multicollinearity was found.

Models with panel data take into consideration the cross-section observations in several moments in time (Gujarati, 2019), making them particularly useful for enabling researchers to capture economic effects that would not be perceivable using cross-section data or temporal series in isolation (Pindyck & Rubinfeld, 2004).

The estimations in models with panel data with fixed effects are performed using ordinary least squares (OLS) techniques, removing the invariable portion from individuals in the sample, which produces an equation with general intercept and with traditional random error (Kennedy, 2009).

As seen in Table 3, the sample obtained enabled the elaboration of 2,155 observations in each regression, producing balanced panels with 270 groups and with an RHO statistic with a maximum value of 0.45 in the model that used DI as the dependent variable. According to Fávero (2015), the RHO statistic evaluates the fraction of observed variance of data that is due to the difference between the panels.

Model 1 analyzed the relationship between ROA and corruption control and political and economic stability, showing positive and significant coefficients at the 10% and 1% levels, respectively, which indicates that the implementation of measures to control corruption and maintain greater political and economic stability has a positive impact on the financial performance of companies listed in the B3, confirming the research hypothesis related to this aspect. The adoption of measures to control corruption by public and private institutions generates a business environment that is more favorable to an adequate relationship between market agents, encouraging economic growth in the long term (Zeeshan, et al., 2022). On the other hand, evidence of corruption causes a reduction in the profitability of companies, since it changes market practices, increases transaction and agency costs, and affects times and costs for obtaining public services (Adomako et al., 2021), increasing costs and reducing profit.

These findings corroborate the results from Lee and Ng (2006), Jain (2020), Hoang, Doan, Tran, Nguyen and Le (2022), and Alam, Farjana and Houston (2023), in that they highlight the impact of corruption on financial performance by showing that corruption reduces the market value of companies, reduces their cash reserves and negatively affect their profitability predictions. Alesina and Perotti (1996) and Formiga et. al., (2019) found that political and economic uncertainty reduces the profitability of companies by compromising economic activity, affecting the attractiveness of businesses and the revenue and expenditures of companies. The elements found here suggest that managers should consider that evidence of corruption and the presence of political and economic instability deteriorate the business environment of organizations due to increased costs and interest rates, making market agents more selective in choosing new projects and more careful in their strategic actions to maximize profit. Environments that are free of corruption and stable in political and economic terms enable companies to focus on making strategic decisions to explore competitive differentials, channeling their efforts into operational excellence and mitigating weaknesses in order to seek the maximization of results.

Model 2 addressed ROE (which was its dependent variable), with COR and POS showing positive and significant coefficients at the 10% level, suggesting that corruption control and political and economic stability contribute favorably to return on equity and confirming the research hypotheses regarding COR and POS. According to Phan, Iyke, Sharma and Affandi (2021), uncertainty has an effect on economic stability, causing market agents to be more careful in their decision-making process; in addition, according to Mankiw (2020), uncertainty changes the perspective of desired returns for market

agents, who require a higher remuneration for their resources in order to finance new investments with equity capital. Another relevant aspect was raised by Guan *et al.* (2021) and Lee, Wang and Ho (2020), who found that political and economic uncertainty generated negative impacts on corporate innovation in the Chinese industry. Since China is a BRICS country and its economic structure is similar to Brazil's, political and economic uncertainty may compromise the quality of innovation by national companies, affecting their productive capacity and resource allocation efficiency. The results confirm the findings of Formiga *et al.* (2019) regarding ROE, indicating that the perception of political and economic instability reduces the return value of an organization's shares. In the same line, Hohn e Vargas (2021) found a positive correlation between market value and the presence of anti-corruption policies, suggesting that companies have more value in the presence of this type of policy. This is also corroborated by Baungarte, Orellana, Fernandes and Menezes (2019), who evaluated the impacts of corruption on entrepreneurial activities. By curbing entrepreneurial activities, corruption inhibits the actions of new enterprises and contributes to weakening the market.

Lastly, Model 3 found only a negative correlation significant at the 10% level between DI and COR, showing that the perception of higher levels of corruption control reduces the degree of intangibility of companies, in opposition to what is proposed in theory. In the sample in question, the degree of intangibility was negatively affected in the presence of corruption control measures. Intangible assets are known to be recognizable in brands, patents, intellectual property items, reputation, company culture, as well as in strategic elements so that companies may maintain competitive advantages, generating financial returns and capital appreciation (Nguyen-Anh *et al.*, 2022). However, according to Nascimento *et al.* (2012), intangible assets have different roles in each company based on the type of economic activity, strategic positioning, location, and other specific factors. In addition, companies that own asset portfolios with different compositions regarding the proportion of tangible and intangible assets present different returns, suggesting that the volume of intangibles may interfere with the financial performance of these companies in uneven ways (Oliveira, Schossler, Campos & Luce, 2014). The findings indicate that, in the study sample, the degree of intangibility of companies is negatively affected as corruption control measures increase. In general, an increase in corruption control uncovers illicit activities and leads to scandals, which have a direct impact on the market value of publicly-traded companies that might be involved, reducing the distance between the accounting value and market value of organizations. According to Silva and Ribeiro (2021), the disclosure of information on investigations of corruption practices affects the market value of companies in different ways: private companies see a reduction in their market value, while state-owned organizations experience an increase in market value and shares. Considering that companies own intangibles in accordance with their operational and strategic characteristics, the impact of the perception of corruption in the business environment can affect companies in different ways, even reducing their degree of intangibility.

The analysis of the control variables used in the models indicated that Current Liquidity showed a positive and significant correlation at the 1% level with ROA and ROE, suggesting that the

maintenance of liquidity positively affects performance in terms of asset management and remuneration of capital. Current liquidity confers competitive advantages by reducing dependency on external resources to finance short-term debt, decreasing the likelihood of financial distress and bankruptcy and enabling the company to leverage market opportunities to invest resources in undervalued projects (Mohammadi, Kardan & Salehi, 2018; Ames, Nunes & Silva, 2022). These results are in line with those found by Jesuka and Peixoto (2023) regarding ROA, but in contrast with those found by Machado, Carvalho and Peixoto (2017) regarding the same indicator. However, it must be noted that an excess of liquidity harms the profitability of a company's assets, since the opportunity cost of these paralyzed, unremunerated resources decreases return on the assets available to managers to operational activities (Ma et al., 2022). No significant correlation was found between CL and DI in Model 3.

There was a positive and statistically significant correlation at the 1% level for SIZ in relation to ROA and ROE. The literature provides ample evidence that larger companies have competitive advantages over smaller companies, since their profits are more stable, they are more diversified, and they are less subject to bankruptcy risks (Brito, Corrar & Batistella, 2007). In addition, larger companies enjoy strategic competitive advantages because they are able to capture resources at lower costs due to their market reputation (Harris & Raviv, 1991) and their potential to reduce bankruptcy risks due the perspective of maintaining future profits (Nursetya & Hidayati, 2020). The results corroborate the findings of Machado, Carvalho and Peixoto (2017), Kalil and Benedicto (2018), Rakhman (2018) and Formiga et. al., (2019), as well as Ferla, Muller e Klann (2019), specifically for Brazilian companies regarding ROA. However, the results are not in line with those found by Almeida, Parente, Luca and Vasconcelos (2018) regarding ROE, by Zanelato *et al.* (2018) regarding ROA, and by Ribeiro, Alves and Menon (2017) and Coletta and Lima (2020) regarding both ROA and ROE. No significant correlation was found between SIZ and DI.

A positive correlation was found for IND with ROA and ROE, significant at the 1% level in both cases, suggesting that healthy indebtedness has a positive impact on the profitability of a company's assets, as well as on its equity capital. This result is coherent with mainstream research on the topic, although there are differences, considering the empirical studies also show a negative correlation between liquidity and financial performance. The Agency Theory, which was proposed in a seminal study by Jensen and Meckling (1976), assumes that indebtedness limits the capacity for managers to make suboptimal decisions in resource allocation, disciplining the company's management and justifying the positive contribution of indebtedness to ROA and ROE. Nevertheless, it should be noted that maintaining liquidity allows the company to face unexpected disbursements or leverage opportunity investments without resorting to third-party funds, considering the high cost of raising financing sources or issuing new shares. On the other hand, a possible cause of the divergent results found in some empirical studies is the lower development of the capital market in emerging countries compared to markets in developed economies, since limitations on market access, together with the low protection of creditors, leads to asymmetries in the access and cost of third-party resources for companies,

discouraging indebtedness – particularly in the long term (Afolabi, Olabisi, Kajola & Asaolu, 2019). The results corroborate the findings of Dey, Hossain and Rahman (2018) and Lima and Martins (2021) in relation to ROE, but contradict the findings of Kalil and Benedicto (2018) and Dey, Hossain and Rahman (2018) in relation to ROA, of Almeida *et al.* (2018) in relation to ROE, and of Formiga *et al.* (2019) when analyzing performance factors in relation to debt. In turn, the control variable CAPEX did not show a significant statistical correlation in any of the models studied.

Figure 3, prepared following the guidelines proposed in Ferreira (2012), summarizes the research findings in relation to the research hypotheses and the empirical results.

Figure 3

Results analysis in relation to the research hypotheses

	Alternate Hypothesis	ROA	ROE	DI
COR	H1	Do not reject	Do not reject	Reject
POS	H2	Do not reject	Do not reject	Not significant
CL	H3	Do not reject	Do not reject	Not significant
SIZ	H4	Do not reject	Do not reject	Not significant
CAPEX	H5	Not significant	Not significant	Not significant
IND	H6	Do not reject	Do not reject	Not significant

Source: Prepared by the authors.

The results found regarding ROA and ROE show that, the higher the perception of corruption control and of political and economic stability in the country the better the performance of companies listed in the B3, in line with the predominant theoretical precepts on the subject. On the other hand, Figure 3 emphasizes the idea that the indicators used do not have statistical significance in relation to the degree of intangibility of companies, except for COR, which presented a correlation opposite to the expected despite being statistically significant at the 10% level. Intangibles are incorporeal assets represented by rights, brands, patents, processes, internal capabilities, differentials and other attributes, which are devalued in view of the possibilities of tribulations caused by discoveries of illicit acts and facts through corruption control mechanisms, both at the corporate and institutional level. This item is particularly important for companies, since it frequently represents competitive differentials and strategic advantages for companies in the face of their competition and of new players in the market.

In any event, these findings emphasize the evidence that the financial performance of companies is affected by perceptions regarding the political and economic environment and corruption, since the presence of these factors may encourage investors to accept projects with lower risk expectations,

lowering their minimum requirements for attractiveness and increasing the range of economically viable projects available to companies and the market.

5 FINAL REMARKS

This study sought to investigate the impact of corruption control and political-economic stability, combined with internal factors such as current liquidity, capital investments, size and debt, on the ROA, ROE and DI of publicly traded companies listed in the B3 in the period from 2011 to 2018.

Recent national and international literature has concerned itself with studying this topic, indicating that harmful environmental elements – such as corruption practices and factors that might lead to political and economic instability – may compromise the financial performance and market value of publicly-traded companies.

The results found here enable the conclusion that the presence of corruption and political and economic instability reduces the financial performance of companies in terms of profitability measured in relation to ROA and ROE, indicating behaviors consistent with the theoretical precepts. However, the findings indicate that the perspective of corruption leads to a reduction in the degree of intangibility of companies, showing that publicly-traded organizations in the sample reduce their investments in intangible assets, sacrificing competitive advantages and market value. The behavior of the control variables was in line with the theoretical predictions, except for CAPEX, which had no significant correlation in any of the cases.

This study contributes to the empirical debate on the target topic by evaluating endogenous factors as well as environmental factors affecting companies and their impact on the performance of companies listed in the B3. In addition, the elements analyzed here provide data and findings that may direct the decision-making process of stakeholders and managers in companies in terms of the financial performance and return of their assets. The intended theoretical contribution of the study was to further contemporary discussions on the influence of environmental factors such as corruption and political and economic instability, as well as intrafirm factors such as current liquidity, capital investments, size and indebtedness, in relation to the economic and financial performance of companies, offering evidence for the development of a theory capable of explaining the mechanisms of action of the perception of corruption and political and economic instability, together with microeconomic elements, on the performance of organizations, as well as the defense strategies adopted by organizations.

One limitation of this study is the use of data covering only publicly-traded companies. The absence of privately held companies may induce selection bias, preventing the generalization of the findings to all companies operating in the Brazilian market. In addition, any endogeneity between the control variables and the dependent variable was not addressed, which would require the estimation of parameters through moment techniques or the use of instrumental variables.

For future research, we suggest a comparison between results for Brazil and for countries with higher corruption control and political and economic stability as well as legislation favoring the

protection of creditors, such as the United States, Australia, New Zealand, and others. In addition, there could be further study of the behavior of the degree of intangibility of companies in the face of corruption control mechanisms, assessing the impact of these practices on the intangibles of private and state-owned companies, as well as further observation of issues related to the speed of pricing of such information on the market value and financial performance of companies in different activity sectors or different corporate control configurations.

REFERENCES

- Adomako, S., Ahsan, M., Amankwah-Amoah, J., Danso, A., Kasse, K., & Frimpong, K. (2021). Corruption and SME growth: the roles of institutional networking and financial slack. *Journal of Institutional Economics*, 17,607-624. <https://doi.org/10.1017/S1744137421000011>
- Afolabi, A., Olabisi, J., Kajola, S. O., & Asaolu, T. O. (2019). Does leverage affect the financial performance of Nigerian firms? *Journal of Economics and Management*, 37(3), 5-22.
- Alam, A. W., Farjana, A., & Houston, R. (2023). State-level economic policy uncertainty (EPU) and firm financial stability: is there any political insurance? *Economics Letters*, 225, 1-5. <https://doi.org/10.1016/j.econlet.2023.111027>
- Alesina, A., & Perotti, R. (1996). Income distribution, political instability, and investment. *European Economic Review*, 40 (6), 1203- 1228. Retrieved May 14, 2021, from https://dash.harvard.edu/bitstream/handle/1/4553018/alesina_incomedistribution.pdf
- Almeida, F. T., Parente, P. H., Luca, M. M., & Vasconcelos, A. C. (2018). Governança corporativa e desempenho empresarial: uma análise nas empresas brasileiras de construção e engenharia. *Revista Gestão & Regionalidade*, 34(100), 110-126. <https://doi.org/10.13037/gr.vol34n100.3594>

Ames, A. C., Nunes, R. V., & Silva, T. P. (2022). Liquidez em caixa e as restrições financeiras no desempenho de mercado das empresas brasileiras. *Revista de Contabilidade e Finanças*, 33(90), 1-15. <https://doi.org/10.1590/1808-057x20211391.pt>

Araújo, J. G., Soeiro, T. M., Matos, F. J., & Bautista, D. C. (2020). Jeitinho Brasileiro, Corrupção e Contabilidade. *Revista Evidenciação Contábil & Finanças*, 8(2), 43-55.
<https://doi.org/10.22478/ufpb.2318-1001.2020v8n2.48165>

Ashraf, J. (2022). Do political instability, financial instability and environmental degradation undermine growth? Evidence from belt and road initiative countries. *Journal of Policy Modeling*, 44, 1113-1127. <https://doi.org/10.1016/j.jpolmod.2022.11.001>

Assaf, A., Neto. (2021). *Finanças corporativas e valor*. São Paulo: Atlas.

Azamat, K., Galiya, J., Bezhan, R., & Nurdana, Z. (2023). The impact of intangible assets on the value of FMCG companies worldwide. *Journal of Innovation and Knowledge*, 8, 1-7.
<https://doi.org/10.1016/j.jik.2023.100330>

Baker, S. R., Bloom, N., & Davis, S. J. (2015). Measuring economic policy uncertainty. [*NBER Working Paper n. 21633*]. Recovered April 03, 2021, from
<https://www.policyuncertainty.com/media/BakerBloomDavis.pdf>

Baugarte, B. T., Orellana, V. S. Q., Fernandez, R. N., & Menezes, G. (2019). Pé no freio ou no acelerador? uma análise empírica dos efeitos da corrupção sobre o empreendedorismo. *RACE - Revista de Administração, Contabilidade e Economia*, 18(1), 87-112.
<https://doi.org/10.18593/race.19261>

Berk, J., & DeMarzo, P. (2020). *Finanças Corporativas*. São Paulo: Pearson Education.

Boll, J. L. (2010). A corrupção governamental no Brasil: construção de indicadores e análise da sua incidência relativa os estados brasileiros. Dissertação (mestrado em Economia do Desenvolvimento) - *Programa de Pós-Graduação em Economia da Faculdade de Administração, Contabilidade e Economia, Universidade Católica do Rio Grande do Sul, Porto Alegre*. Recuperado 05 abril, 2021, de <http://tede2.pucrs.br/tede2/bitstream/tede/3886/1/423819.pdf>

Brealey, R. A., Myers, S. C., & Allen, F. (2013). *Princípios de finanças corporativas*. Porto Alegre: AMGH.

Brito, G. A., Corrar, L.J., & Batistella, F. D. (2007). Fatores determinantes da estrutura de capital das maiores empresas que atuam no Brasil. *Revista de Contabilidade e Finanças*, 43, 9-19. <https://doi.org/10.1590/S1519-70772007000100002>

Callegari-Jacques, S. M. (2003). *Bioestatística: princípios e aplicações*. Porto Alegre: Bookman.

Cavalcante, L. R. (2015). *Ambiente de negócios, investimentos e produtividade*. [Texto para discussão n. 2130]. Rio de Janeiro: Instituto de Pesquisa Econômica Aplicada – IPEA. Recuperado 08 Março, 2021, de: https://www.ipea.gov.br/portal/index.php?option=com_content&view=article&id=26176

Coletta, C., & Lima, R. A. Board of directors, performance and firm value in Brazilian state-owned enterprises. (2020). *Brazilian Review of Finance (On Line)*, 18(2), 1-18. Recovered March, 30, from <https://bibliotecadigital.fgv.br/ojs/index.php/rbfin/article/view/80898/78060>

Creel, J., Hubert, Paul, & Labondance, F. (2015). Financial stability and economic performance.

Economic Modelling, 48, 25-40. <https://doi.org/10.1016/j.econmod.2014.10.025>

Damodaran, A. (2004). *Finanças corporativas: teoria e prática*. Porto Alegre: Bookman.

Davidson, W. N., Worrell, D. L., & Garrison, S. H. (2014). Effect of strike activity on firm value. *The*

Academy of Management Journal, 31(2), 387–394. Recovered March 31, 2021, from

[https://www.researchgate.net/profile/Dan-Worrell-](https://www.researchgate.net/profile/Dan-Worrell-2/publication/275697876_Effect_of_Strike_Activity_on_Firm_Value/links/55b6484508aacc0e5f436f92d/Effect-of-Strike-Activity-on-Firm-Value.pdf)

[2/publication/275697876_Effect_of_Strike_Activity_on_Firm_Value/links/55b6484508aacc0e5f436](https://www.researchgate.net/profile/Dan-Worrell-2/publication/275697876_Effect_of_Strike_Activity_on_Firm_Value/links/55b6484508aacc0e5f436f92d/Effect-of-Strike-Activity-on-Firm-Value.pdf)

[f92d/Effect-of-Strike-Activity-on-Firm-Value.pdf](https://www.researchgate.net/profile/Dan-Worrell-2/publication/275697876_Effect_of_Strike_Activity_on_Firm_Value/links/55b6484508aacc0e5f436f92d/Effect-of-Strike-Activity-on-Firm-Value.pdf)

Dey, R. M., Hossain, S. Z., & Rahmann, R. A. (2018). Effect of corporate financial leverage on

financial performance: a study on publicly traded manufacturing companies in Bangladesh.

Asian Social Science, 14(12), 124-133. <https://doi.org/10.5539/ass.v14n12p124>

Donadelli, M., Fasan, M. & Magnanelli, B. (2014). The Agency Problem, Financial Performance and

Corruption: Country, Industry and Firm Level Perspectives. *European Management Review*,

11, 259-272. <https://doi.org/10.1111/emre.12038>

Faria, G. G., Carvalho, L., Peixoto, F. M. & Borsatto, J. M. (2020). Governança Corporativa e a

Intangibilidade: Um Estudo em Empresas Brasileiras não Financeiras da B3. *Revista Ibero-*

Americana de Estratégia, 19(4), 58-75. <https://doi.org/10.5585/riae.v19i4.16591>

Fávero, L. P. (2015). *Análise de dados: modelos de regressão com Excel, Stata e SPSS*. Rio de

Janeiro, Elsevier.

- Ferdaous, J., & Rahman, M. M. (2019). The effects of intangible assets on firm performance: an empirical investigation on selective listed manufacturing firms in DSE, Bangladesh. *American Journal of Business*, 31(34), 146-168.
- Ferla, R., Muller, S. H., & Klann, R. C. (2019). Influência dos ativos intangíveis no desempenho econômico de empresas latino-americanas. *Revista Brasileira de Finanças (On Line)*, 17(1), 35-50. Recuperado 10 novembro, 2021, de https://www.researchgate.net/publication/336619845_Influencia_dos_ativos_intangiveis_no_desempenho_economico_de_empresas_latino-americanas
- Ferreira, M. A. S. P. V. (2013). Comentário editorial: a construção de hipóteses. *Revista Ibero-Americana de Estratégia*, 12(4), 1-8. <https://doi.org/10.5585/ijsm.v12i4.2046>
- Formiga, M., Barros, C. M., Cezário, N. J., & Scherer, L.M. (2019). O efeito da incerteza política no desempenho e valoração das companhias abertas brasileiras. *Revista Eletrônica de Administração*, 25(3), 96-123. <https://doi.org/10.1590/1413-2311.270.96608>
- Fortunato, G., Funchal, B. & Motta, A. P. (2012). Impacto dos investimentos no desempenho das empresas brasileiras. *Revista de Administração Mackenzie*, 13(4), 75-98. Recuperado em 02 maio, 2021, de <http://www.spell.org.br/documentos/ver/8183/impacto-dos-investimentos-no-desempenho-das-empresas-brasileiras>
- Grzebieluckas, C., Marcon, R., Alberton, A., & Bandeira-de-Mello, R., (2008). Estrutura de capital e a performance das firmas: uma análise empírica em companhias abertas no Brasil. *Revista Brasileira de Estratégia*, 1(1), 73-88. Recuperado em 06 dezembro, 2021, de <https://periodicos.pucpr.br/REBRAE/article/view/13316>

Guan, J., Xu, H., Huo, D., Hua, Y., & Wang Y. (2021). Economic policy uncertain and corporate innovation: evidence from China. *Pacific-Basin Finance Journal*, 67, 1-15.

<https://doi.org/10.1016/j.pacfin.2021.101542>

Gujarati, D. N. (2019). *Econometria: princípios, teoria e aplicações práticas*. São Paulo: Saraiva Educação.

Hacini, I., Boulenfad, A., & Dahou, K. (2021). The impact of liquidity risk management on the financial performance of Saudi Arabian banks. *Emerging Markets Journal*, 11(1), 67-75.

Hardinis, M. (2019). Capital structure and firm size on firm value moderated by profitability. *International Journal of Economics and Business Administration*, 7(1), 174-191.

Harris, M., & Raviv, A. (1991). The theory of capital structure. *The Journal of Finance*, 66(1), 297-355.

Helfert, E. A. (2000). *Técnicas de análise financeira: um guia prático para medir o desempenho dos negócios*. Porto Alegre: Bookman.

Hoang, K., Doan, H. T., Tran, T. T., Nguyen, T. X., & Le, A. Q. (2022). Anti-corruption campaign and firm financial performance: evidence from Vietnam firms. *Evaluation Review*, 46(2), 103-137. <https://doi.org/10.1177/0193841X211072707>

Hou, D., Chan, K. C., Dong, M., & Yao, Q. (2022). The impact of economic policy uncertainty on a firm's green behavior: Evidence from China. *Research in International Business and Finance*, 59, 1-15. <https://doi.org/10.1016/j.ribaf.2021.101544>



- Hu, Y., & Xu, M. (2021). Xi's anti-corruption campaign and the speed of capital structure adjustment. *Pacific-Basin Finance Journal*, 65, 1-24. <https://doi.org/10.1016/j.pacfin.2020.101483>
- Jain, R. (2020). Bribery and firm performance in India: A political economy perspective. *Journal of Asian Economics*, 68, 1-13. <http://dx.doi.org/10.1016/j.asieco.2020.101181> 1049-0078
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305-360.
[https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Jesuka, D., & Peixoto, F. M. (2022). Rating soberano, governança corporativa e desempenho da firma: evidências no Brasil. *Revista Enfoque: Reflexão Contábil*, 41(3), 37-54.
<https://doi.org/10.4025/enfoque.v41i3.56986>
- Juelsrud, R. E., & Larsen, V. H. (2023). Macroeconomic uncertainty and bank lending. *Economics Letters*, 225, 1-4. <https://doi.org/10.1016/j.econlet.2023.111041>
- Julio, B. & Yook, Y. (2012). Political Uncertainty and Corporate Investment Cycles. *The Journal of Finance*, 67(1), 45–83. Recuperado em 15 abril, 2021, de
<https://onlinelibrary.wiley.com/doi/full/10.1111/j.1540-6261.2011.01707.x>
- Kalil, J. P., & Benedicto, G. C. (2018). Impactos da oferta pública inicial de ações no desempenho econômico-financeiro de empresas brasileiras na B3. *RACE*, 17(1), 197-224.
<https://doi.org/10.18593/race.v17i1.16314>
- Kanzari, D., Nakhli, M. S., Gaies, B., & Sahut, J. (2023). Predicting macro-financial instability – How relevant is sentiment? Evidence from long short-term memory networks. *Research in*

International Business and Finance, 65, 1-18.

<https://doi.org/10.1016/j.ribaf.2023.101912>

Karim, A. E., Albitar, K., & Elmarzouky, M. (2021). A novel measure of corporate carbon emission disclosure, the effect of capital expenditures and corporate governance. *Journal of Environmental Management*, 290, 1-8. <https://doi.org/10.1016/j.jenvman.2021.112581>

Kayo, E. K. (2002). A estrutura de capital e o risco das empresas tangível e intangível-intensivas: uma contribuição ao estudo da valoração de empresas. [Tese Doutorado em Administração - Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo, São Paulo]. Recuperado em 02 maio, 2021, de:
<https://www.teses.usp.br/teses/disponiveis/12/12139/tde-05032003-194338/pt-br.php>

Kennedy, P. (2009). *Manual de econometria*. Rio de Janeiro: Elsevier.

Krifa-Schneider, H., Matei, I., & Sattar, A. (2022). FDI, corruption and financial development around the world: a panel non-linear approach. *Economic Modelling*, 110, 1-18.
<https://doi.org/10.1016/j.econmod.2022.105809>

Lee, C. C., Wang, C. W. & Ho, S. J. (2020). Country governance, corruption, and the likelihood of firms' innovation. *Economic Modelling*, 92, 326-338 Recuperado em 02 abril, 2021, de
<https://www.sciencedirect.com/science/article/pii/S0264999319318176>

Lee, C. M., & Ng, D. T. (2006). Corruption and international valuation: does virtue pay? [*Johnson School Research Paper, n. 41*]. Recovered April 01, from https://mpra.ub.uni-muenchen.de/590/1/MPRA_paper_590.pdf

Lim, C. Y., Wang, J., & Zeng, C. (2018). China's "mercantilist" government subsidies, the cost of debt and firm performance. *Journal of Banking and Finance*, 86, 37-52.

<https://doi.org/10.1016/j.jbankfin.2017.09.004>

Lima, R. Q., & Martins, M. A. (2021). Influência da estrutura de capital sobre a rentabilidade das empresas do setor de energia elétrica listadas na B3. *Contexto - Revista do Programa de Pós-Graduação em Controladoria e Contabilidade da UFRGS*, 21(47), 66-78. Recuperado em 05 abril, 2021, de <https://seer.ufrgs.br/ConTexto/article/view/109708>

Ma, S., Shen, J., Wang, F., & Wu, W. (2022). A tale of two Us: corporate leverage and financial asset allocation in China. *International Review of Financial Analysis*, 83, 1-15.

<https://doi.org/10.1016/j.irfa.2022.102260>

Machado, G. A., Carvalho, L., & Peixoto, F. M. (2017). A relação entre intensidade tecnológica e o grau de intangibilidade no desempenho econômico-financeiro da indústria brasileira. *Gestão & Regionalidade*, 33(99), 1-18. <https://doi.org/10.13037/gr.vol33n99.4167>

Machado, L. K. C., Prado, J. W., Rauber, L. L., Carvalho, E. G., & Santos, A. C. (2020). A influência da governança corporativa no desempenho financeiro, na oportunidade de crescimento e no valor de mercado das firmas: uma análise com modelagem de equações estruturais. *Enfoque: Reflexão Contábil*, 39(2), 27-41. <https://doi.org/10.4025/enfoque.v39i2.45852>

Mankiw, N. G. (2020). *Introdução à economia*. São Paulo: Cengage Learning.

Martins, E., Diniz, J. A., & Miranda, G. J. (2018). *Análise avançada das demonstrações contábeis: uma abordagem crítica*. 2. ed. São Paulo: Atlas.

Martins, G. A. (2001). *Estatística geral e aplicada*. São Paulo: Atlas.

Mauro, P. (1995). Corruption and growth. *The Quarterly Journal of Economics*, 110(3), 681-

712. Recovered March 03, 2021, from

https://econpapers.repec.org/article/oupqjecon/v_3a110_3ay_3a1995_3ai_3a3_3ap_3a681-712..htm

Mohammadi, M., Kardan, B., & Salehi, M. (2018). The relationship between cash holdings, investment opportunities and financial constraint with audit fees. *Asian Journal of Accounting Research*, 3(1), 15-27.

Mordfin, R. (2014). The price of policy uncertainty. *Chicago Booth Review*. Recovered April 19, 2021, from <http://review.chicagobooth.edu/magazine/fall-2014/the-price-of-policyuncertainty>

Moser, P., Isaksson, O., Okwir, S., & Seifert, R. W. (2021). Manufacturing management in process industries: the impact of market conditions and capital expenditure on firm performance. *IEE Org.*, 68(3), 810-822.

Moura, G. D., Barbosa, S. A., Schio, N. S., & Mazzioni, S. (2020). Ativos intangíveis influenciam no desempenho financeiro e no valor de mercado de companhias abertas familiares? *Revista Catarinense da Ciência Contábil*, 19, 1-17. <https://doi.org/10.16930/2237-766220202815>

Muslija, A., Özbozkurt, O., & Satrovic, E. (2018). On the relationship between tourism and political stability and absence of violence/terrorism. [*First International Congress of Political, Economic and Financial Analysis*]. Turkey. Recovered March 18, 2021, from



https://www.researchgate.net/publication/331989590_On_The_Relationship_Between_Tourism_and_Political_Stability_and_Absence_of_ViolenceTerrorism

Nascimento, E. M., Oliveira, M. C., Marques, V. A., & Cunha, J. V. (2012). Ativos intangíveis: análise do impacto do grau de intangibilidade nos indicadores de desempenho empresarial. *Enfoque: Reflexão Contábil*, 31(1), 37-52.

Nguyen-Ahn, T., Hoang-Duc, C., Nguyen-Thi-Thu, L., Vu-Tien, V., Nguyen-Dinh, U., & To-Te, N. (2022). Do intangible assets stimulate firm performance? Empirical evidence from Vietnamese agriculture, forestry and fishery small- and medium-sized enterprises. *Journal of Innovation and Knowledge*, 7, 1-14. <https://doi.org/10.1016/j.jik.2022.100194>

Nunes, D. S. (2017). Incerteza política: uma análise do impacto da incerteza política nacional e internacional no mercado de capitais brasileiros. [Tese Doutorado em Administração - Programa de Pós-Graduação em Administração - Universidade de Brasília, Brasília]. Recuperado em 17 março, 2021, de <https://repositorio.unb.br/handle/10482/24430>

Nursetya, R. P., & Hidayati, L. N. (2020). How does firm size and capital structure affect firm value? *Journal of Management and Entrepreneurship Research*, 1(2), 67-76. <https://doi.org/10.34001/jmer.2020.12.01.2-7>

Okafor, A., Adeleye, B. N., & Adusei, M. (2021). Corporate social responsibility and financial performance: Evidence from U.S tech firms. *Journal of Cleaner Production*, 292. <https://doi.org/10.1016/j.jclepro.2021.126078>

- Oliveira, M. O. R., Schossler, D. P., Campos, R. P., & Luce, F. B. (2014). Ativos intangíveis e o desempenho econômico-financeiro: comparação entre os portfólios de empresas tangível-intensivas e intangível-intensivas. *Revista de Administração UFSM*, 7(4), 678-699.
- Pamplona, E., & Silva, T. P. (2020). Influência da estrutura de capital no desempenho de empresas brasileiras sob a ótica não linear. *Journal of Management and Economics for Iberoamerica*, 3(157), 415-427. <https://doi.org/10.18046/j.estger.2020.157.3851>
- Pellicani, A. D. (2017). Impacto da corrupção nas decisões de investimento das firmas brasileiras de capital aberto. *Revista Brasileira de Economia*, 71(2), 195-215.
- Pereira, A. S., Shitsuka, D. M., Pereira, F. J., & Shitsuka, R. (2018). *Metodologia da pesquisa científica*. Santa Maria: Universidade Federal de Santa Maria.
- Pereira, A. L., Benedicto, G. C., Prado, J. W., Carvalho, E. G., & Carvalho, F. M. (2021). Influência do investimento em bens de capital no desempenho econômico-financeiro sob a moderação da governança corporativa. *Brazilian Review of Finance (On Line)*, 19(3), 110-143. Recuperado em 11 dezembro, 2021, de <https://bibliotecadigital.fgv.br/ojs/index.php/rbfin/article/view/81548/80240>
- Perondi, E. (2017). Crise econômica e instabilidade política: cenários da ofensiva do capital contra o trabalho no Brasil. *Revista de Políticas Públicas*, 21(2), 603-621, 2017. Recuperado em 02 março, 2021, de <http://www.periodicoseletronicos.ufma.br/index.php/rppublica/article/view/8236>
- Peters, G. T., & Bagshaw, K. B. (2014). Corporate governance mechanisms and financial performance of listed firms in Nigeria: a content analysis. *Global Journal of Contemporary Research in*



Accounting, Auditing and Business Ethics, 1(2), 103-128. Recovered March 02, 2021, from:
https://www.researchgate.net/publication/265294544_Corporate_Governance_Mechanisms_and_Financial_Performance_of_Listed_Firms_in_Nigeria_A_Content_Analysis/link/5407d9f40cf2bba34c247306/download

Phan, D. H. B., Iyke, B. N., Sharma, S. S., & Affandi, Y. (2021). Economic policy uncertainty and financial stability- is there a relation? *Economic Modelling*, 94, 1018-1029.
<https://doi.org/10.1016/j.econmod.2020.02.042>

Pindyck, R. S., & Rubinfeld, D. L. (2004). *Econometria: modelos e previsões*. Rio de Janeiro: Campus.

Porter, M. E. (1986). *Estratégia competitiva: técnicas para análise de indústrias e da concorrência*. Rio de Janeiro: Campus.

Prodanov, C. C., & Freitas, E. C. (2013). *Metodologia do trabalho científico: métodos e técnicas da pesquisa e do trabalho acadêmico*. (2a ed.). Novo Hamburgo: Feevale.

Rakhman, F. (2018). Can partially privatized SOEs outperform fully private firms? Evidence from Indonesia. *Research in International Business and Finance*, 45, 285-292.
<https://doi.org/10.1016/j.ribaf.2017.07.160>

Ramos, F. M., Hohn, G. S., & Vargas, L. A. (2021). Efeito da adoção da Lei Anticorrupção no valor de mercado das companhias brasileiras listadas no Ibovespa. *Revista Contextus*, 19(1), 1-14.
<https://doi.org/10.19094/contextus.2021.59985>

Rau, R. (2001). Mudança estratégica em uma organização do setor público tecnológico do Estado do Paraná. [Dissertação Mestrado em Engenharia de Produção Universidade Federal de Santa

Catarina, Florianópolis]. Recuperado em 03 março, 2021, de

<https://repositorio.ufsc.br/xmlui/handle/123456789/80282>

Reis, A. O., & Almeida, F. M. (2020). Relações entre elementos da gestão pública e a corrupção nos estados brasileiros. *Revista Ciências Administrativas*, 26(3), 1-15, 2020.

<https://doi.org/10.5020/2318-0722.2020.26.3.9703>

Ribeiro, F., Alves, T. A., T. M., & Menon, G. (2017). Responsabilidade social e corporativa e o desempenho financeiro no setor de energia elétrica: um estudo com modelo de dados em painéis. *Revista Gestão & Regionalidade*, 33(99), 39-54.

<https://doi.org/10.13037/gr.vol33n99.3987>

Ribeiro, M. G. C., Macedo, M. A. S., & Marques, J. A. V. (2012). Análise da relevância de indicadores financeiros e não financeiros na avaliação de desempenho organizacional: um estudo exploratório no setor brasileiro de distribuição de energia elétrica. *Revista Contabilidade e Organizações*, 6(15), 60-79.

Robbins, S. P. (2001). *Administração: mudanças e perspectivas*. São Paulo: Saraiva.

Santos, K. A. (2017). Corrupção e desenvolvimento: revisão da literatura e evidências empíricas preliminares. [Dissertação mestrado em Ciências Políticas - Programa de Pós-Graduação em Ciência Política, Universidade Federal de Pernambuco. Recife]. Recuperado em 03 março, 2021, de <https://repositorio.ufpe.br/handle/123456789/28399>

Santos, L. M. (2018). A hipótese do custo de oportunidade familiar na gestão de pequenos negócios: um estudo de caso na região metropolitana de Belo Horizonte – MG. *Revista de*



Administração da UEG, 9(2), 22-41. Recuperado em 20 dezembro, 2021, de

https://www.revista.ueg.br/index.php/revista_administracao

Sarquis, R. W., & Voese, S. B. (2014). Utilização dos indicadores econômico-financeiros para mensuração do desempenho das empresas enquadradas no setor de bens de consumo da bolsa de valores de Nova Iorque (NYSE). *Contexto - Revista do Programa de Pós-Graduação em Controladoria e Contabilidade da UFRGS*, 14(27), p. 70-88, 2014. Recuperado 04 abril, 2021, de <https://seer.ufrgs.br/ConTexto/article/view/40587>

Schabek, T. (2020). The financial performance of sustainable power producers in emerging markets. *Renewable Energy*, 160, 1408-1419. <https://doi.org/10.1016/j.renene.2020.06.067>

Sharma, P., Shukla, D. M., & Raj, A. (2023). Blockchain adoption and firm performance: the contingent roles of intangible capital and environmental dynamism. *International Journal of Production Economics*, 256, 1-15. <https://doi.org/10.1016/j.ijpe.2022.108727>

Silva, R. F., & Ribeiro, E. P. (2021). Uma nota sobre o impacto das operações anticorrupção no valor de mercado das empresas no Brasil. *Revista Brasileira de Economia*, 75(3), 289-299. Recuperado 02 janeiro, 2022, de <https://bibliotecadigital.fgv.br/ojs/index.php/rbe/article/view/79825/80393>

Stoffel, T., Theis, V. & Schreiber, D. (2019). Causas e impactos da instabilidade política na performance do comércio internacional. *Internext - Revista Eletrônica de Negócios Internacionais da ESPM*, 14(1), 31-44, 2019. <https://doi.org/10.18568/internext.v14i1.445>

Triola, M. F. (2012). *Introdução à estatística*. Rio de Janeiro: LTC.

Vu, T. V. (2022). Unbundling the effect of political instability on income redistribution. *European Journal of Political Economy*, 75, 1-22. <https://doi.org/10.1016/j.ejpoleco.2022.102189>

World Bank Group. (2013). World investment trends and corporate perspectives the political risk insurance industry breach of contract. *Multilateral Investment Guarantee Agency*. Recovered March 20, 2021, from www.miga.org/sites/default/files/archive/Documents/WIPR13.pdf.

Zago, C., & Melo, G. R. (2015). A influência da liquidez na rentabilidade das empresas listadas no Índice Ibovespa. *Revista de Contabilidade e Controladoria*, 7(2), 27-40.

Zanelato, F. A., Grando, T., Martins, V. Q., & Zanini, F. A. (2018). Gastos sociais internos e o desempenho das empresas do ISE. *Revista Ambiente Contábil*, 10(2), 384-403. <https://doi.org/10.21680/2176-9036.2018v10n2ID14157>

Zeeshan, M., Han, J., Rehman, A., Ullah, I., Ussain, A., & Afridi, F. E. (2022). Exploring symmetric and asymmetric nexus between corruption, political instability, natural resources and economic growth in the context of Pakistan. *Resources Policy*, 78, 1-12. <https://doi.org/10.1016/j.resourpol.2022.102785>

Zhou, F., Zhang, Z., Yang, J., Su, Y., & Na, Y. (2021). Delisting pressure, executive compensation, and corporate fraud: Evidence from China. *Pacific-Basin Finance Journal*, 48, 17-34. <https://doi.org/10.1016/j.pacfin.2018.01.003>