Revista Conhecimento Contábil
DOI:
ISSN: 2447 - 2921

Relationship Between the Compatibility of Reported EBITDA by Companies Listed on B3 and Corporate Characteristics

Relação entre a Compatibilidade de EBITDA Divulgados pelas Companhias Listadas na B3 e as Características Corporativas

Shaiane Kistner
shaiane_pk@hotmail.com

Orion Augusto Platt Neto
orion.platt@ufsc.br

Abstract
The objective of this study was to identify the relationships between the compatibility of EBITDA values disclosed by companies listed on B3 and corporate characteristics related to industry sector, time listed on the stock exchange, governance level, and total assets. The study analyzed 322 companies listed on B3 that disclosed Original EBITDA for the year 2021, employing descriptive statistical techniques, including measures of correlation and association. The results indicate that characteristics such as firm size, listing duration, governance level, and industry sector do not exhibit significant relationships with the compatibility of the indicator when independently calculated in accordance with the applicable regulation. No systematic tendency toward overstatement was observed in cases of incompatible EBITDA. Only Hypothesis 6 was supported, indicating an increase in the number of companies disclosing EBITDA with compliant values following the implementation of CVM regulations from 2012 onward. The study contributes by demonstrating that EBITDA compliance in Brazil is driven more by regulatory enforcement than by corporate attributes, providing a historical basis for regulators to monitor the quality of voluntary disclosure and for investors to assess the risks associated with incompatibility.
Keywords: EBITDA; Voluntary Disclosure; Corporations; non-GAAP.

Resumo
O objetivo deste artigo foi identificar as relações entre a compatibilidade dos valores dos EBITDA divulgados pelas companhias listadas na B3, e as características corporativas ligadas ao setor de atuação, ao tempo em bolsa, ao nível de governança e ao total do ativo. A pesquisa analisou 322 companhias listadas na B3 que divulgaram EBITDA Original referente ao ano de 2021, utilizando técnicas de estatística descritiva, incluindo medidas de correlação e associação. Os resultados revelaram que características como tamanho, tempo de listagem, nível de governança e setor não possuem relações significativas com a compatibilidade do indicador obtido a partir de uma apuração independente, conforme a norma específica. Não foram verificadas tendências de superavaliação nos casos em que havia incompatibilidade do indicador. Apenas a Hipótese 6 foi confirmada, indicando aumento do número de companhias que evidenciaram o EBITDA com valores compatíveis após a edição das normas aplicáveis da CVM, a partir de 2012. O estudo contribui ao demonstrar que a conformidade do EBITDA no Brasil é influenciada mais pela regulação normativa do que por atributos corporativos, fornecendo uma base histórica para reguladores monitorarem a qualidade da informação voluntária e para investidores avaliarem riscos de incompatibilidade.

DOI:
ISSN: 2447 - 2921

Palavras-chave: EBITDA; Divulgação Voluntária; Sociedades por Ações; não GAAP.

1 Introduction

This study examines Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA), also referred to as Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA). This metric is one of the most widely used indicators of operational cash flow generation capacity, commonly applied in both longitudinal and cross-sectional analyses, as well as in comparisons across firms (Kistner & Platt Neto, 2020). It represents a non-GAAP performance measure, that is, information derived from manual adjustments to accounting figures, classified as either non-accounting or adjusted accounting measures, which do not comply with Generally Accepted Accounting Principles (GAAP) (Nichols et al., 2005; Isidro & Marques, 2020).

Research on non-GAAP or pro forma measures remains both relevant and timely, as such indicators are frequently used by investors to provide a summarized view of firm performance (Black, 2016; Bradshaw et al., 2018; Andrade & Murcia, 2019). However, most studies on this topic have been conducted internationally, particularly in the United States, largely due to the Sarbanes–Oxley Act (SOX), whose primary concern relates to the potential misuse of these indicators (Black, 2016; Black et al., 2018; Andrade & Murcia, 2019). In contrast, relatively few studies have been conducted in the Brazilian context (Oliveira, 2018).

In Brazil, EBITDA disclosure is not mandatory for publicly traded companies, as established by Law No. 6,404/1976 and the Brazilian Securities and Exchange Commission (CVM). Due to its voluntary nature, managers may disclose this indicator to meet stakeholders' informational needs (Andrade & Murcia, 2019). Additionally, such disclosure may serve as an incentive for managers to reduce information asymmetry, which is associated with adverse selection and moral hazard costs (Isidro & Marques, 2020).

There are also concerns regarding the reliability of voluntary disclosures. EBITDA is considered a timely performance measure with relatively low measurement cost (Isidro & Marques, 2020), and its use has become widespread among firms (Black et al., 2018). Furthermore, it may be employed to influence investors' perceptions of organizational performance (Guillamon-Saorin et al., 2017; Basu et al., 2026), thereby creating room for opportunistic disclosure practices. In such cases, firms may report favorable EBITDA figures when mandatory financial disclosures do not present similarly positive results (Miller, 2009; Rozenbaum, 2017). Basu et al. (2026) found that stakeholders' limited attention to non-GAAP information may lead managers to adopt opportunistic behavior through the disclosure of aggressive and lower-quality information.

Only in 2012 was EBITDA formally regulated in terms of its calculation and disclosure, through CVM Instruction No. 527 (Brazil, 2012). Prior to this, the indicator was subject to varying methodological interpretations (Kistner & Platt Neto, 2022a). It is worth noting that in 2022, this Instruction was revoked and replaced by CVM Resolution No. 156 (Brazil, 2022b), although no significant changes were made to the existing provisions.

Certain peculiarities of Brazilian publicly traded companies can be observed due to the relatively recent regulation of EBITDA, particularly with respect to the reliability of disclosed information and compliance with regulatory standards (Kistner & Platt Neto, 2022a). For instance, Maragno et al. (2014, p. 58) highlighted the manipulation of this indicator, noting that companies reported "overly optimistic" values.

DOI:
ISSN: 2447 - 2921

In a different context, Kistner and Platt Neto (2020) observed that EBITDA disclosure in 2018 was associated with higher levels of corporate governance compared to the Traditional level, as well as with firm size, measured by total assets. For 2021, the authors identified relationships with the length of time the firm had been listed on the stock exchange and its industry sector, in addition to the characteristics observed for 2018 (Kistner & Platt Neto, 2023).

Additionally, Kistner and Platt Neto (2022a) found that, for 2018, there were no significant relationships between compliant EBITDA disclosure and industry sector, time listed on the stock exchange, the presence of a governance level more advanced than the Traditional level, or firm size. They also concluded that there was a substantial increase in compliance with the indicator following the issuance of CVM Instruction No. 527/2012.

Accordingly, this study contributes to the research by Kistner and Platt Neto (2022a) by examining the corporate profile of Brazilian publicly traded companies with respect to the compatibility of reported EBITDA figures, now focusing on the year 2021. The original study, based on data from 2018, aimed to identify relationships between compliant EBITDA values disclosed by companies listed on the Brazilian stock exchange—Brasil, Bolsa, Balcão (B3)—and governance level, time listed, industry sector, and total assets, according to the methodology established by CVM Instruction No. 527/2012 (Kistner & Platt Neto, 2022a). Among the authors' recommendations was the need for similar analyses in subsequent periods, due to the limited temporal scope of the original study and the importance of developing a historical series.

Despite the relevance of EBITDA, few studies in the literature have focused on verifying the accuracy of its calculation following regulatory standardization. Previous research has primarily examined the relationship between corporate characteristics and the decision to disclose the indicator. However, there remains a gap in investigating whether such characteristics explain the conformity of reported values with current regulations. The distinctive contribution of this study lies in analyzing the technical compliance of reported values, thereby enabling an assessment of whether regulatory maturity has mitigated the upward bias identified in earlier studies.

Within this context, the present research is grounded in Voluntary Disclosure Theory, as proposed by Dye (2001). From this theoretical perspective, voluntary disclosure entails inherent risks. Accordingly, this study is guided by the following research question: What are the relationships between the compatibility of EBITDA values disclosed by companies listed on B3 and their corporate characteristics?

Thus, the objective of this study is to identify the relationships between the compatibility of EBITDA values disclosed by companies listed on B3 and corporate characteristics related to industry sector, time listed on the stock exchange, governance level, and total assets. Based on the disclosed EBITDA figures and their associated variables, it is possible to test statistical relationships of correlation and association between compliant or non-compliant values and: firm size, measured by total assets; industry sectors; adherence to governance levels above the Traditional level; and the number of years listed on the stock exchange. Additionally, it is possible to examine whether there is a predominance of underestimation or overestimation in cases of non-compliance.

The relevance of this study is underscored by the recognition of several authors regarding the role of non-GAAP measures in corporate communication. While Schipper (2007) argues that voluntary disclosure is driven by managerial incentives to enhance firm value, Guillamon-Saorin et al. (2017) and Basu et al. (2026) caution that such indicators may be used to manipulate

DOI:
ISSN: 2447 - 2921

investors' perceptions of actual performance. In Brazil, scholars such as Martins et al. (2018) and Iudícibus (2008) emphasize that EBITDA has become a widely adopted metric among analysts, making the verification of its compliance with regulatory standards essential for protecting investors from information asymmetry. The reliability of this indicator, as highlighted by Andrade and Murcia (2019) and Isidro and Marques (2020), is critical to mitigating manipulation risks, thereby justifying the need for studies that monitor whether the flexible calculation of EBITDA is used to provide informative summaries or as a tool for managerial opportunism.

Accordingly, this study aims to contribute to the Brazilian capital market by examining the EBITDA values disclosed by companies and their compliance with established regulations, as well as, in cases of non-compliance, identifying potential patterns of earnings manipulation (bias) and whether specific corporate characteristics are associated with a higher likelihood of incompatibility. Furthermore, the study contributes to the academic field by supporting future research on the topic, enabling historical comparisons, and providing a basis for the development of new hypotheses and research questions.

2 Theoretical Background

2.1 Voluntary Disclosure

Publicly traded companies assume a greater commitment to corporate governance practices, which requires more consistent and extensive disclosure of data and information to stakeholders. Among the categories of disclosure, the following stand out: involuntary disclosures, which occur without the entity's consent; voluntary disclosures, carried out at the discretion of the entity; and mandatory disclosures, required by regulatory authorities (DTTI, 1993, as cited in Skillius & Wennberg, 1998).

As a result of increasing demands for information, companies meet users' informational needs by providing more comprehensive annual reports (Oliveira, 2018). Consequently, with the expansion of available information, stakeholder attention in the United States has increasingly shifted toward non-GAAP disclosures (Nichols et al., 2005; Isidro & Marques, 2020).

It is important to note that, although Brazilian companies may disclose voluntary information, CVM Resolution No. 80 (Brazil, 2022a) establishes that such disclosures must be complete, consistent, and truthful, and must not mislead users. Furthermore, these disclosures must be presented in clear, concise, and objective language (Brazil, 2022a). Thus, voluntary disclosure emerged from the need to communicate corporate performance to the market in a differentiated manner, with the objective of guiding users and creating value (Sousa et al., 2014).

In this context, the central premise of Voluntary Disclosure Theory, proposed by Dye (2001), is that firms will disclose discretionary information only when it is favorable to them. Otherwise, such information will not be disclosed. Additionally, disclosure is optimized when competitors engage in similar practices (Dye, 2001). Finally, the theory suggests that the absence of voluntary disclosure, or the disclosure of information at levels below full transparency, signals that firm performance may not be strong (Dye, 2001).

The study by Isidro and Marques (2020) partially corroborates this theory, as it finds that the disclosure of superior non-GAAP results is influenced by similar practices among competitors within the same industry. Moreover, when firms choose to engage in voluntary disclosure, Rufino and Machado (2015) argue that such information tends to exhibit greater detail and higher quality compared to mandatory disclosures.

DOI:
ISSN: 2447 - 2921

EBITDA is one of the most widely disseminated indicators in the context of voluntary corporate disclosure worldwide. Its use became evident in the 1970s (Coelho, 2005), and in the 1980s it was recognized as a metric for evaluating companies facing financial distress and requiring restructuring (McClure, 2019). In Brazil, the indicator gained prominence in the second half of the 1990s following the decline of inflation (Iudícibus, 2008).

The primary utility of EBITDA lies in measuring economic benefits derived from operational performance, using net income as a starting point and excluding financial aspects, non-cash expenses, and taxes (Cornejo-Saavedra & Diaz, 2006). As a result, EBITDA has been described as a "God" metric by analysts (Martins et al., 2018), as it provides insights into firm performance and facilitates comparability across companies (Frezatti & Aguiar, 2007; Gradilone, 2011). Additionally, it serves as an indicator of a firm's capacity to generate cash flows from operational activities (Macedo et al., 2012).

The advantages associated with EBITDA include its applicability to holding companies, due to the exclusion of financing structure considerations; its ease and speed of calculation; and its role as a proxy for operational cash flow generation (Cornejo-Saavedra & Diaz, 2006). However, its limitations include the recognition of revenues that may not be realized in the future, as well as the exclusion of investments in fixed assets and working capital (Cornejo-Saavedra & Diaz, 2006).

Elfrink et al. (2025) demonstrate that, despite criticisms, EBITDA is the most effective metric for predicting future operating cash flows, outperforming both net income and historical operating cash flows, particularly in firms with significant variations in capital assets, financing, or tax planning. However, the authors caution against the use of Adjusted EBITDA, in which firms exclude items beyond interest, taxes, depreciation, and amortization.

The international literature also highlights that the effectiveness of EBITDA disclosure depends not only on the metric itself but also on the institutional environment in which the firm operates. Cormier et al. (2024), in examining the contexts of France and Canada, find that in markets with varying levels of investor protection, the disclosure of Adjusted EBITDA tends to reduce information asymmetry, suggesting that investors value the metric relative to rigid accounting standards. However, the authors emphasize that this usefulness depends on the nature of the adjustments. While the exclusion of non-recurring items is generally accepted, purely opportunistic adjustments may impair comparability, thereby reinforcing the need for strict standardization, such as that established by the CVM in Brazil.

In this regard, the lack of standardization in EBITDA calculation led the CVM, in 2012, to issue Instruction No. 527 (Brazil, 2012), which established rules for the measurement and voluntary disclosure of this non-accounting indicator. In 2022, this instruction was revoked and replaced by CVM Resolution No. 156 (Brazil, 2022b), without significant changes to its provisions. Accordingly, the regulation requires that EBITDA disclosure include the ". . . reconciliation of amounts presented in the financial statements . . ." (Brazil, 2022b, art. 2, §2). Therefore, EBITDA must be accompanied by a reconciliation statement, following the standardized structure of variables required by the regulation.

instrução foi revogada e substituída pela Resolução CVM n. 156 (Brasil, 2022b), sem alterações significativas nas disposições. Assim, a norma estabeleceu que na divulgação da métrica é necessário indicar a ". . . conciliação dos valores constantes das demonstrações contábeis . . ." (Brasil, 2022b, art. 2º, § 2º). Por isso, o EBITDA deve vir acompanhado de memória de cálculo, seguindo o padrão das variáveis exigidas pela norma.

DOI:
ISSN: 2447 - 2921

The formula established by CVM Resolution No. 156 (Brazil, 2022b, art. 3, I) is as follows:

> Art. 3. The calculation of EBITDA and EBIT must not exclude any non-recurring, non-operating, or discontinued operations items and shall be determined as follows: I – EBITDA – net income for the period, plus income taxes, net financial expenses (financial expenses net of financial revenues), and depreciation, amortization, and depletion.

The calculation of the indicator must be based on the data reported in the financial statements in accordance with Technical Pronouncement CPC 26 (R1) (Brazil, 2022b; 2022, art. 2). EBITDA calculated in accordance with CVM regulations is referred to in the scientific literature as "Original EBITDA." Additionally, there is the possibility of disclosing "Adjusted EBITDA" (a term used both in regulation and in the literature), which refers to the indicator adjusted ". . . by other items that contribute to information regarding gross cash generation potential" (Brazil, 2022b, art. 4). The regulation establishes that, if an entity chooses to disclose "Adjusted EBITDA," it must be explicitly identified as "adjusted" and presented together with "Original EBITDA" (Brazil, 2022b, art. 5).

2.2 Previous Studies on EBITDA

Table 1 presents prior studies that have examined the compatibility and/or consistency of EBITDA disclosed by publicly traded companies, complemented by studies that support the research hypotheses.

Table 1 – Previous Studies on EBITDA

Authors	Extracts of Objectives or Investigated Aspects / Summary of Results
Colombo et al. (2014)	Objective: to analyze divergences between EBITDA calculated by the authors and those reported between 2007 and 2011 by eligible companies listed on the current B3. Results: 44.2% of the entities disclosing EBITDA were compliant.
Maragno et al. (2014)	Objective: to analyze whether EBITDA figures reported for the years 2010 to 2012 were compliant with the methodology established by CVM Instruction No. 527/2012. Results: non-compliant entities tended to report overstated results.
Vieira and Girão (2014)	Objective: to examine the relevance and impact of the implementation of CVM Instruction No. 527 on the Brazilian financial market. Results: the enforcement of the regulation led to a reduction in reported EBITDA values. Stakeholders considered Adjusted EBITDA more relevant, indicating limited relevance of the regulation for users.
Albuquerque et al. (2017)	Objective: to assess the degree of comparability of EBITDA in ". . . consolidated accounts of listed entities in Portugal . . ." in 2013 (p. 63). Results: despite differences in EBITDA definitions across entities—some adopting International Accounting Standards Board (IASB) standards and others national standards—no differences were observed in the individual accounts of the consolidating entity, maintaining the same level of comparability under both standards.
Mey (2019)	Objective: to evaluate the quality of EBITDA calculation disclosures by entities listed on the Johannesburg Stock Exchange from 2014 to 2016. Results: deficiencies were found in EBITDA reconciliation quality. Positive EBITDA reported alongside negative earnings was negatively associated with higher-quality calculation methods, indicating opportunistic use of the metric through invalid adjustments.
Mey and Lamprecht (2020)	Objective: to examine the usefulness of EBITDA disclosures by companies listed on the Johannesburg Stock Exchange from 2014 to 2016. Results: inconsistency in EBITDA calculation is enabled by broad definitions in accounting standards and the lack of explicit requirements.

Authors	Extracts of Objectives or Investigated Aspects / Summary of Results
	Consequently, the quality of the disclosed indicator depends on the entity. Evidence was found of entities reporting Adjusted EBITDA while labeling it as Original EBITDA, potentially rendering the information misleading for decision-making.
Kistner and Platt Neto (2020)	Objective: to identify associations between specific corporate characteristics and EBITDA disclosure by companies listed on B3, referring to 2018. Results: firm size (measured by total assets) and adherence to higher levels of corporate governance were moderately associated with EBITDA disclosure. In contrast, time listed on the stock exchange and industry sector showed insignificant associations.
Kistner and Platt Neto (2022b)	Objective: to identify how many Brazilian publicly traded companies disclosed EBITDA for 2018, in which reports it was presented, and the types disclosed (Original or Adjusted). Results: 88.0% of the sample disclosed some form of EBITDA—of these, 90.5% reported Original EBITDA with reconciliation, in accordance with CVM Instruction No. 527, while 1.8% disclosed Adjusted EBITDA without the concurrent presentation of Ori

Source: Prepared by the authors.

Accordingly, it is observed that the impact of CVM Instruction No. 527/2012, later replaced by CVM Resolution No. 156/2022, on EBITDA disclosure has been examined over time, as well as the compatibility (faithful representation) of the indicator as calculated by firms. Additional relevant studies on the topic are presented in the following section.

2.3 Hypotheses Development

The theoretical foundations of the tested hypotheses are presented in Table 2.

Table 2 – Theoretical Foundations of the Research Hypotheses

Hypothesis Relationships	Theoretical Foundation
Hypothesis 1: There is an association between the compatibility of disclosed EBITDA and specific industry sectors.	Relevant findings: There is an association between voluntary disclosure and the industry sector of publicly traded companies (Murcia & Santos, 2009). The level of environmental disclosure is influenced, among other factors, by the firm's industry sector (Braga et al., 2009; Burgwal & Vieira, 2014). Companies in the cyclical consumer goods sector exhibit higher levels of information disclosure (Magalhães et al., 2011). In developing countries, there is a positive relationship between corporate disclosure and industry sector (Muttakin & Khan, 2014). Counterpoints: Colombo et al. (2014), Gaspar (2015), and Kistner and Platt Neto (2022a).
Hypothesis 2: There is a positive relationship between the compatibility of disclosed EBITDA and the length of time listed on the stock exchange.	Relevant findings: The length of time firms are listed is associated with disclosure levels and quality (Magalhães et al., 2011). Sustainability disclosure increases with longer firm tenure (Bomfim et al., 2015). Counterpoints: Kistner and Platt Neto (2022a).
Hypothesis 3: There is a positive relationship between the compatibility of disclosed EBITDA and the adoption of higher levels of corporate governance.	Relevant findings: Voluntary disclosure of social information is associated with corporate governance practices (Cunha & Ribeiro, 2006). Voluntary disclosure by publicly traded companies is positively related to corporate governance levels (Murcia & Santos, 2009). Variation in disclosure indices across segments is explained by corporate governance practices (Nunes et al., 2020). Counterpoints: Aillón et al. (2013), Souza et al. (2016), and Kistner and Platt Neto (2022a).
Hypothesis 4: There is a positive relationship between the	Relevant findings: Environmental disclosure is positively associated with firm size (Braga et al., 2009). Voluntary disclosure occurs at higher levels in

DOI:
ISSN: 2447 - 2921

Hypothesis Relationships	Theoretical Foundation
compatibility of disclosed EBITDA and firm size.	larger firms (Cormier & Magnan, 1999; Murcia & Santos, 2009). Segment disclosure is associated primarily with firm size (Silva & Pinheiro, 2012; Schvirck et al., 2013). Firms that disclose more information tend to be larger, as measured by total assets (Folster et al., 2015). Counterpoints: Cunha and Ribeiro (2006), Magalhães et al. (2011), Aillón et al. (2013), Souza et al. (2016), Potrich et al. (2017), Nunes et al. (2020), and Kistner and Platt Neto (2022a).
Hypothesis 5: More than half of the companies with incompatible EBITDA will report overstated values.	Relevant findings: Firms may adjust results to present more favorable outcomes (Kraemer, 2005). Among incompatible EBITDA disclosures from 2007 to 2011, overstatement predominated (Colombo et al., 2014). Listed companies manipulated EBITDA to present more optimistic values (Maragno et al., 2014). Firms used EBITDA to project a more favorable image prior to regulatory standardization (Vieira & Girão, 2014). Overstated incompatible EBITDA predominated among B3-listed firms between 2007 and 2013 (Gaspar, 2015). Counterpoints: Kistner and Platt Neto (2022a).
Hypothesis 6: There was an increase in the number of companies disclosing EBITDA in compliant values after the issuance of CVM Instruction No. 527 (2012).	Relevant findings: Following CVM Instruction No. 527, comparisons between 2010 and 2012 disclosures show that most B3-listed companies reported EBITDA in accordance with CVM requirements (Maragno et al., 2014). The compliance rate increased from 50.2% in 2013 (Gaspar, 2015) to 77.5% in 2018, indicating greater adaptation to regulation over time (Kistner & Platt Neto, 2022a).

Note: The counterpoint refers to studies that did not find statistically significant relationships between the compatibility of reported EBITDA and the characteristics associated with the formulated hypothesis.
Source: Prepared by the authors.

Based on the proposed hypotheses, their operationalization and the specific variables that comprise them are presented in Sections 3.3 and 3.2, respectively.

3 Methodological Procedures

3.1 Research Classification and Techniques Employed

This study is classified as follows: in terms of objectives, as descriptive; in terms of approach to the research problem, as predominantly quantitative; and in terms of procedures, as documentary. Bivariate analysis techniques were employed for hypothesis testing, including descriptive statistics through contingency tables (joint frequency distribution tables), measures of correlation (for quantitative variables) and association (for qualitative variables), and graphical analysis to identify relationships between two variables (Fávero & Belfiore, 2020).

The analyses included: joint frequency distribution tables; tables of differences and proportions relative to the mean; the coefficient of determination (R^2); Pearson's linear correlation coefficient (R)—applied to binary qualitative variables indicating presence or absence (dummy variables) and quantitative variables; and Cramér's V coefficient (V)—used to assess associations between nominal qualitative variables.

Data treatment was applied to the quantitative variables: Total Assets (TA)—a proxy for firm size—transformed into natural logarithm (ln) to control for high variability across firms (Silva, 2008); and Years Listed (YL)—the time companies have been listed on the Brazilian stock exchange. Outliers identified in these variables using the interquartile range criterion (IQR = Q3 − Q1) were treated באמצעות winsorization, which adjusts an equal number of observations at both

DOI:
ISSN: 2447 - 2921

ends of the distribution in an ordered manner (Fávero et al., as cited in Fávero & Belfiore, 2020). Following Becker (2015), who suggests commonly adopted thresholds (1%, 2.5%, or 10%) for outlier replacement, the levels of 1% for ln(TA) and 2.5% for YL were selected, as they adequately addressed the identified extreme values based on the interquartile range. Accordingly, four observations were replaced at each tail of ln(TA), and ten observations at each tail of YL.

Documentary analysis was employed during the data collection phase, based on information obtained from: the websites of the CVM and B3 or from companies' annual reports available on their official websites; and the Economatica® database. The data were tabulated using Microsoft Excel® to generate tables and graphs, while Stata® was used to compute association statistics.

The use of bivariate analyses is justified by the objective of identifying direct relationships and associations between EBITDA compatibility and corporate characteristics individually, in line with the methodological approach adopted in prior studies. Given that the literature indicates a lack of statistical significance for these variables in previous periods, bivariate analysis is sufficient to assess the persistence of such findings.

3.2 Population, Sample, and Variables

The population of the study comprised active companies listed on B3 in 2021 that were eligible to disclose EBITDA, excluding those in the financial sector and those with null values for total assets and/or net income for the period, resulting in 395 entities. From this population, the sample included only companies that made their 2021 annual reports available and disclosed Original EBITDA, totaling 322 companies, representing 81.5% of the population.

The main variables included in the tested hypotheses, along with their respective measurements and data categories, descriptions, abbreviations, and data sources, are presented in Table 3.

Table 3 – Operational and Constitutive Definition of the Study Variables

Variable Abbreviations	Variable Names and Descriptions	Scales or Categories and Labels
TA (ln)	Total Assets (TA): Identifies firm size based on total assets. TA values (in BRL) (Source 1) were transformed into the natural logarithmic scale (ln).	N, NN
YL (Years)	Years Listed (YL): Identifies the time companies have been listed on B3, measured in full years from the IPO date (Source 2) until 12/31/2021.	Number of years; N, NN
PNGDT (Y/N)	Presence of Governance Level Different from Traditional (PNGDT): Indicates whether the company belongs to any segment with higher corporate governance requirements. "Yes" (1; presence) for companies in all segments other than the Traditional (basic) segment, and "No" (0; absence) for companies in the Traditional segment.	Yes / No; 1 / 0[b]
Sectors	NAICS Level 1 Sectors: Identifies the company's industry sector according to the NAICS Level 1 classification (Source 1), which provides better adjustments compared to other classification models (Orlovas et al., 2018; Souza et al., 2018).	Names; NAICS labels
DEC (Y/N)	Disclosed Compliant EBITDA (DEC): Indicates whether the Original EBITDA disclosed by the company is consistent with the independently calculated value (criterion c).	Yes / No; 1 / 0[b]
CIE	EBITDA Incompatibility Classification (CIE): Identifies whether the disclosed EBITDA is compliant or the type of incompatibility (criterion c). This qualitative polytomous variable was coded as: "1" for "Compliant," "2" for "Understated," and "3" for "Overstated." These labels do not imply any ordering.	Compliant / Understated / Overstated; 1 / 2 / 3

Variable Abbreviations	Variable Names and Descriptions	Scales or Categories and Labels
TCE (%)	EBITDA Compatibility Rate (TCE): Measures the relative difference between the EBITDA value calculated in this study and the Original EBITDA disclosed by the company. Calculation: if EEBITDA < 0, TCE = −(DEBITDA/EEBITDA − 1); and if EEBITDA > 0, TCE = DEBITDA/EEBITDA − 1. Where: Disclosed EBITDA Value (DEBITDA), in BRL, reported by the company; and Estimated EBITDA Value (EEBITDA), in BRL, independently calculated in this study based on variables and (Source 5).	Percentages; 0.00%

Note: Variables refer to the fiscal year ending in 2021. Data sources for variable collection are as follows: Source 1 – Data collected from Economatica (Screening). Source 2 – Initial public offering dates obtained from company registration forms available on CVM and B3 websites or institutional webpages. Source 3 – Variables collected from each company's annual reports for 2021, including Management Reports (MR), Notes to the Financial Statements (NFS), and Reference Forms (RF). Source 4 – Data obtained from financial statements disclosed by companies and/or from Economatica® (based on the most appropriate value for each company). Source 5 – Data collected from annual reports of each entity for the reference year, including RF, MR, and NFS. Kistner and Platt Neto (2022b) indicate that RF and MR are the most relevant sources for identifying EBITDA, while disclosure in NFS is limited but not negligible. a Following the six B3 segments, corporate governance levels were coded into non-hierarchical categories (Source 1): "0" for "Traditional" (Basic Segment); "1" for "Bovespa Mais Level 2"; "2" for "Bovespa Mais"; "3" for "Level 1"; "4" for "Level 2"; and "5" for "Novo Mercado". b Dummy variables (binary qualitative variables), where "1" indicates "Yes" (presence) and "0" indicates "No" (absence). c If the disclosed EBITDA (DEBITDA) equals the estimated EBITDA (EEBITDA), it is considered compliant. Differences of up to ±2.0% relative to EEBITDA were tolerated, as adopted by Colombo et al. (2014), Gaspar (2015), and Kistner and Platt Neto (2022a), among others. EBITDA is considered compliant if DEBITDA falls within −2.00% to +2.00% of difference; understated if below −2.0%; and overstated if above +2.0%. This range provides a tolerance margin for differences arising from rounding or other minor factors. d Accounting data were used for the variables applied in EBITDA calculations (Source 4), as established by the CVM, including: income taxes, financial revenues, financial expenses, financial result, net income for the period, and depreciation, amortization, and depletion. e The variables used in EBITDA computation, based on accounting data (Source 4) as defined in the CVM formula, include: income taxes, net income for the period, financial revenues, financial expenses, financial result, and depreciation, amortization, and depletion.
Fonte: Adaptado de Kistner e Platt Neto (2022a).

Based on the variables presented in Table 3 and the concepts of Fávero and Belfiore (2020), it was established that: YL and TA are quantitative, continuous, and ratio variables; Sector is qualitative, polytomous, and nominal; TCE (%) is quantitative, ratio, and continuous; and DEC and PNGDT are qualitative, dichotomous, and nominal. It is noteworthy that, although qualitative, the binary variables PNGDT and DEC were also treated as quantitative in the correlation analyses. Additionally, YL and TA were also analyzed as qualitative variables when categorized into quartiles for the purpose of assessing associations.

3.3 Hypotheses Formulation

The operational formulation of the research hypotheses is presented in Table 4.

Table 4 – Formulated Hypotheses and Proposed Statistical Tests

Hypothesis Themes	Tested Hypotheses
Hypothesis 1: Regarding the relationship between the disclosure of compliant EBITDA and industry sectors. Tests: Cramér's V coefficient (V) between "DEC (Y/N)" and "Sectors (top 5)".	H1: There is an association between the compatibility of disclosed EBITDA and specific industry sectors.

DOI:
ISSN: 2447 - 2921

Hypothesis Themes	Tested Hypotheses
Hypothesis 2: Regarding the relationship between the disclosure of compliant EBITDA and time listed on the stock exchange. Tests: V coefficient between "DEC (Y/N)" and "YL Quartiles"; and Pearson correlation (R) between "DEC (Y/N)" and "YL (Years)".	H1: There is a positive relationship between the compatibility of disclosed EBITDA and the length of time listed on the stock exchange.
Hypothesis 3: Regarding the relationship between the disclosure of compliant EBITDA and governance levels. Tests: V and R coefficients between "DEC (Y/N)" and "PNGDT (Y/N)".	H1: There is a positive relationship between the compatibility of disclosed EBITDA and the adoption of higher levels of corporate governance.
Hypothesis 4: Regarding the relationship between the disclosure of compliant EBITDA and firm size. Tests: V coefficient between "DEC (Y/N)" and "TA Quartiles"; and Pearson correlation (R) between "DEC (Y/N)" and "TA (ln)".	H1: There is a positive relationship between the compatibility of disclosed EBITDA and firm size.
Hypothesis 5: Regarding the predominance of overstatement among incompatible EBITDA. Tests: Considering a tolerance of ±2%: if CIE (Over) > 0.5100, this indicates a tendency toward overstatement and supports H1; if CIE (Over) < 0.4900, this indicates understatement and rejects both H1 and H0; and if 0.4900 ≤ CIE (Over) ≤ 0.5100, there is no generalized bias, confirming H0 and rejecting H1.	H1: More than half of the companies with incompatible EBITDA will report overstated values.
Hypothesis 6: Regarding independent calculation and compatibility of disclosed EBITDA. Tests: If "DEC (Yes)/n (2021)" > "DEC (Yes)/n (average of 2012 and 2013, which was 46.8%)", H1 is supported; otherwise, H0 is supported. The "n" refers to the number of companies that disclosed Original EBITDA in the analyzed years.	H1: There was an increase in the number of companies disclosing EBITDA with compliant values after the issuance of applicable CVM regulations, from 2012 onward.

Note: Abbreviations: H1 = Alternative Hypothesis—indicates the existence of a relationship between variables.
Note: The abbreviations and descriptions of the variables are presented in the previous section.
a For 2012, 263 companies disclosed EBITDA, of which 114 (43.3%) were compliant; for 2013, 261 companies disclosed EBITDA, of which 131 (50.2%) were compliant, resulting in an average compliance rate of 46.8% for 2012 and 2013 (Gaspar, 2015). For 2018, 183 companies (77.5%) disclosed compliant EBITDA (Kistner & Platt Neto, 2022a).
Source: Adapted from Kistner and Platt Neto (2022a).

Statistical tests were conducted between the variables presented in the previous section to evaluate the hypotheses (confirming or rejecting them), as reported in Chapter 4. Section 2.3 presented the theoretical foundations of the research hypotheses.

3.4 Procedures

Five stages were structured for data collection and processing, as originally proposed by Kistner and Platt Neto (2022a), summarized as follows.

Stage 1: Identify the study population, consisting of entities eligible for EBITDA calculation and active in the specified year. Entities in the financial sector are considered ineligible for EBITDA calculation, and inactive companies are those with null net income and/or total assets.

Stage 2: Review the companies' annual reports, including the Reference Form (RF), Management Report (MR), and Notes to the Financial Statements (NFS). Identify Original EBITDA disclosed in these reports and construct the variable "Disclosed EBITDA Value"

DOI:
ISSN: 2447 - 2921

(DEBITDA).

Stage 3: Calculate EBITDA according to CVM standards, based on data from published financial statements or the Economatica database, in order to obtain—through independent calculation—the variable "Estimated EBITDA Value" (EEBITDA).

Stage 4: Compare EEBITDA with DEBITDA for each entity to derive the "EBITDA Compatibility Rate" (TCE). Determine whether compatibility exists based on TCE percentages, thereby constructing the variable "Disclosed Compliant EBITDA" (DEC). Additionally, identify whether incompatibility reflects overstatement or understatement, forming the variable "EBITDA Incompatibility Classification" (CIE).

Stage 5: Develop proportion tables, mean difference tables, and contingency tables for the variables CIE and DEC, cross-tabulated with: YL quartiles; TA quartiles; industry sectors; and governance levels. Based on joint distribution tables, compute Pearson's correlation coefficient (R) and coefficient of determination (R^2) between DEC, YL, TA, Sectors, and PNGDT, as well as Cramér's V coefficient (V).

During Stage 3, it was identified that for one company, the Economatica data were not consistent with those disclosed in its Income Statement (DRE), as evidenced by discrepancies in Net Income for the Period (RLP) between the company's annual report and the Economatica database. In this case, EBITDA was calculated exclusively using data from the company's original financial statements. Data collection was carried out between December 2022 and January 2023. It was also found that, for 90.7% of the entities in the sample, EBITDA values provided by Economatica were consistent with those calculated in this study according to CVM methodology, representing a rate. 2.12 percentage points lower than that identified by Kistner and Platt Neto (2022a) for 2018.

4 Research Results

Chapter 4 is organized into two parts. The first presents the results obtained from the applied tests, encompassing Sections 4.1 to 4.6. The second provides a discussion of the results in light of the reviewed literature and the formulated hypotheses, covered in Section 4.7.

4.1 Association Between Industry Sectors and EBITDA Compatibility

An analysis was conducted between the industry sector in which the company operates and the compatibility of disclosed EBITDA (DEC), as well as the type of incompatibility (CIE), as presented in Table 1. The five largest sectors in terms of number of companies were selected in order to reduce statistical distortions arising from sectors with a small number of firms.

Table 1 – Joint Frequency Distribution Between EBITDA Compatibility and Type of Incompatibility Across the Five Largest Sectors, 2021 – Sample (322 Companies)

NAICS Level 1 Sectors	EBITDA Compatibility		Total Companies
(Number of Companies and Percentage)			
Compatible	Incompatible		
	Overstated	Understated	
Manufacturing	65 (76.5%)	7 (8.2%)	
Electricity, Gas, and Water Utilities	42 (75.0%)	8 (14.3%)	
Construction	18 (66.7%)	4 (14.8%)	

DOI:
ISSN: 2447 - 2921

NAICS Level 1 Sectors	EBITDA Compatibility	Total Companies
Retail Trade	14 (51.9%)	6 (22.2%)
Transportation and Storage	19 (86.4%)	1 (4.5%)
Other Sectors	73 (69.5%)	20 (19.0%)
Total	231 (71.7%)	46 (14.3%)

Note: Abbreviations: electr.: electricity.
Source: Prepared by the authors based on the research data.

The overall EBITDA compatibility rate among the 322 companies in the sample was 71.7%, while incompatibility accounted for 28.3%. Among the five largest sectors, "Transportation and Storage" exhibited the highest compatibility rate (86.4%), whereas "Retail Trade" showed the highest level of incompatibility (48.1%). Notably, in the "Manufacturing" sector, 7 companies reported understated EBITDA (35.0%) and 13 reported overstated values (65.0%).

The association between DEC and the five largest sectors was assessed using Cramér's V coefficient (V). According to the criteria established by Rea and Parker (2014), the results indicated an insignificant association between the disclosure of compliant EBITDA and the sector in which the company operates (V = 0.0765). Similarly, the V coefficient indicated an insignificant association (0.0923) between the classification of EBITDA incompatibility and industry sectors.

4.2 Association Between Time Listed on the Stock Exchange and EBITDA Compatibility

Table 2 presents the distributions, according to quartiles of time listed on the stock exchange, between the level of EBITDA compatibility and the types of incompatibility.

Table 2 – Joint Frequency Distribution Between EBITDA Compatibility and Type of Incompatibility According to Quartiles of Years Listed (YL), 2021 – Sample (322 Companies)

Years Listed (YL) (Number of Companies and Percentage)	EBITDA Compatibility	Total Companies
Quartiles	Years Range	Compatible
1st Quartile	0.4 to 3.7	60 (74.1%)
2nd Quartile	3.8 to 14.8	54 (67.5%)
3rd Quartile	14.9 to 27.7	63 (78.8%)
4th Quartile	27.7 to 53.3	54 (66.7%)
Total	—	231 (71.7%)

Source: Prepared by the authors based on the research data.

The third quartile shows the highest percentage of companies reporting compliant EBITDA (78.8%), followed by the first quartile (74.1%). Cramér's V between YL quartiles and DEC (0.0635) indicates an insignificant association between compliant disclosure of the indicator and the length of time the company has been listed on the stock exchange. Between YL quartiles and CIE, the V coefficient indicates a weak association.

4.3 Association Between Governance Level and EBITDA Compatibility

Table 3 presents the distribution, according to corporate governance levels, of EBITDA compatibility and the types of incompatibility.

Table 3 – Joint Frequency Distribution Between EBITDA Compatibility and Type of Incompatibility According to Governance Levels, 2021 – Sample (322 Companies)

DOI:
ISSN: 2447 - 2921

Governance Levels	Compatibilidade do EBITDA Divulgado Number of Companies %				Total Companies
	Compatible	Incompatible			
		Overstatement	Understatement	Total	
0 – Traditional	66 (75,9%)	7 (8,0%)	14 (16,1%)	21 (24,1%)	87 (100%)
1 – Bovespa Mais Level	0 (0,0%)	0 (0,0%)	1 (100%)	1 (100,0%)	1 (100%)
2 – Bovespa Mais	8 (61,5%)	5 (38,5%)	0 (0,0%)	5 (38,5%)	13 (100%)
3 – Level 1	10 (55,6%)	2 (11,1%)	6 (33,3%)	8 (44,4%)	18 (100%)
4 – Level 2	13 (76,5%)	3 (17,6%)	1 (5,9%)	4 (23,5%)	17 (100%)
5 – Novo Mercado	134 (72,0%)	29 (15,6%)	23 (12,4%)	52 (28,0%)	186 (100%)
1 to 5 – PNGDT	165 (51,2%)	39 (16,6%)	31 (13,2%)	70 (29,8%)	235 (100%)
Total	**231 (71,7%)**	**46 (14,3%)**	**45 (14,0%)**	**91 (28,3%)**	**322 (100,0%)**

Note: Abbreviation: PNGDT = Presence of Governance Level Different from Traditional.
Source: Prepared by the authors based on the research data.

Initially, Table 3 shows that 235 (73.0%) of the 322 companies in the sample adhered to governance levels more sophisticated than the basic segment. Among the 87 companies in the Traditional level (code 0), 66 (75.9%) reported compliant EBITDA. Of the 235 entities with governance levels above the Traditional segment (PNGDT, codes 1 to 5), 165 (51.2%) disclosed compliant EBITDA. Among the 21 Traditional-level companies that reported incompatible EBITDA, 7 (33.3%) were overstated and 14 (66.7%) were understated. In contrast, among the 70 PNGDT entities with incompatible EBITDA, 39 (55.7%) were overstated and 31 (44.3%) were understated.

Cramér's V coefficient between corporate governance categories (Traditional and PNGDT) and DEC indicated an insignificant association (0.0557) between compliant EBITDA disclosure and higher governance levels. The V coefficient between governance level and CIE indicated a weak association (0.1102).

4.4 Association Between Firm Size and EBITDA Compatibility

Table 4 presents the distribution, according to quartiles representing firm size, between EBITDA compatibility and the types of incompatibility.

Table 4 – Joint Frequency Distribution Between EBITDA Compatibility and Type of Incompatibility According to Quartiles of Total Assets (TA), 2021 – Sample Amostra (322 cias)

Total Assets (TA) (natural logarithm – ln)		EBITDA Compatibility Number of Companies %				Total Companies
Quartiles	Asset Range	Compatible	Incompatível			
			Overstatement	Understatement	Total	
1st Quartile	17,48 a 20,96	57 (70,4%)	14 (17,3%)	10 (12,3%)	24 (29,6%)	81 (100%)
2nd Quartile	20,96 a 22,13	56 (70,0%)	11 (13,8%)	13 (16,2%)	24 (30,0%)	80 (100%)
3rd Quartile	22,18 a 23,32	62 (77,5%)	10 (12,5%)	8 (10,0%)	18 (22,5%)	80 (100%)
4th Quartile	23,39 a 25,90	56 (69,1%)	11 (13,6%)	14 (17,3%)	25 (30,9%)	81 (100%)
Total das cias		**231 (71,7%)**	**46 (14,3%)**	**45 (14,0%)**	**91 (28,3%)**	**322 (100,0%)**

Source: Prepared by the authors based on the research data.

The third TA quartile exhibited the highest percentage of companies reporting compliant EBITDA (77.5%), while the lowest was observed in the second quartile (70.0%). Among the

incompatible cases, the first quartile showed the highest proportion of overstatement (17.3%), whereas the fourth quartile presented the highest level of understatement (17.3%).

Cramér's V coefficient between TA quartiles and DEC indicated an insignificant association (0.0429) between firm size and the disclosure of compliant EBITDA. Similarly, the V coefficient between TA quartiles and CIE indicated an insignificant association (0.0578) between firm size and the classification of EBITDA incompatibility.

4.5 General Analysis of EBITDA Compatibility and Incompatibility

Table 5 presents the frequency distributions of the DEC and CIE variables.

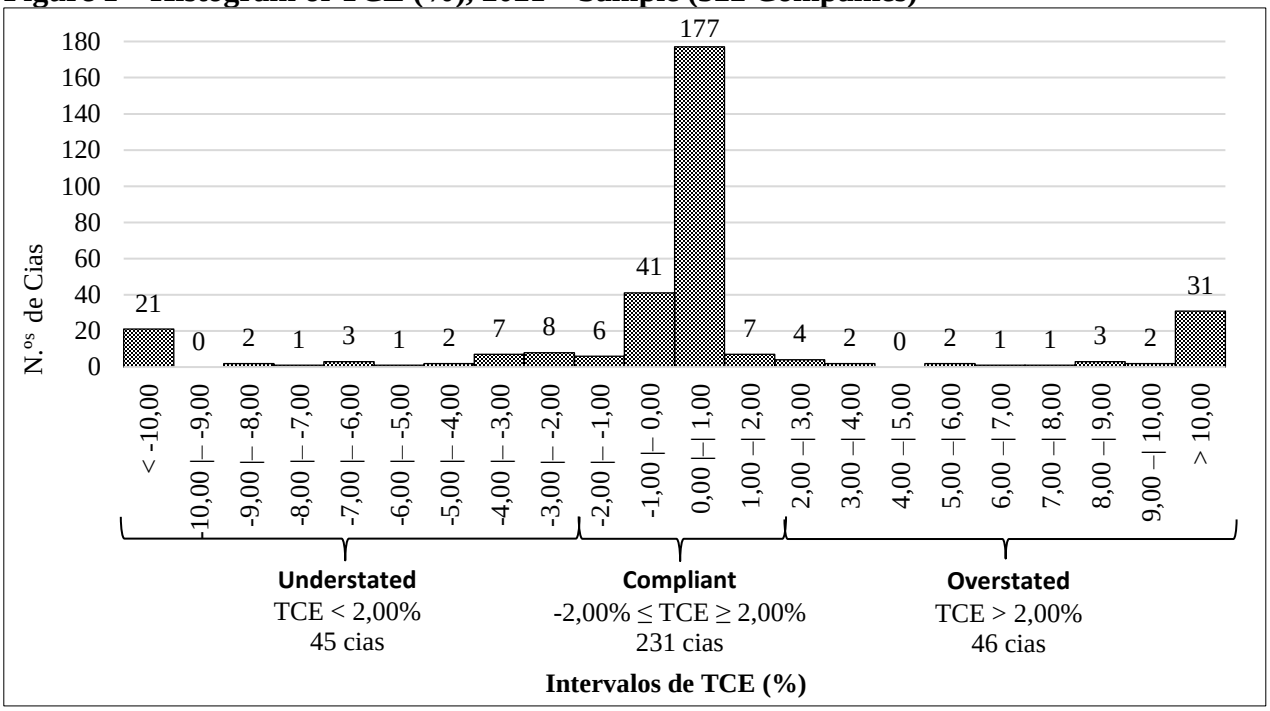
Table 5 – Frequency Distributions of DEC and CIE, 2021 – Sample (322 Companies)

EBITDA Compatibility and Types of Incompatibility	Number of Companies	Percentage Composition (%)	
		Among Incompatible	Relative to Total
Overstated	46	50,55%	14,29%
Understated	45	49,45%	13,98%
Total Incompatible	**91**	**100,00%**	**28,26%**
Compliant	**231**	**-**	**71,74%**
Total	**322**	**-**	**100,00%**

Source: Prepared by the authors based on the research data.

It is observed that 71.7% of the companies in the sample reported EBITDA values compatible with those independently calculated in this study, while 28.3% disclosed incompatible values. Among the 91 companies with incompatible EBITDA, 46 were overstated (50.55%) and 45 understated (49.55%). Thus, there were 2.2% more cases of overstatement than understatement. However, the difference between the categories of incompatibility is only 1.10 percentage points, indicating a near balance with little or no systematic bias toward overstatement.
Figure 1 presents the histogram of the EBITDA Compatibility Rate (TCE).

Figure 1 – Histogram of TCE (%), 2021 – Sample (322 Companies)



Source: Prepared by the authors based on the research data.

It was observed that most of the sample fell within the compliant range, with TCE values between −2% and +2%, primarily concentrated between 0% and 1%. Most cases of understatement occurred at values below −10% incompatibility, while most cases of overstatement were observed at values above 10%. Thus, companies disclosing incompatible EBITDA tended to report values that were either substantially understated or substantially overstated.

4.6 Correlations Between Variables

The correlations between the variables are presented in Table 6, namely: (a) YL, which indicates how long (in years) companies have been listed on the stock exchange; (b) TA, representing firm size (in BRL, transformed into natural logarithm); (c) PNGDT, a binary variable indicating whether companies belong to a governance level more sophisticated than the Traditional level; and (d) DEC, a binary variable indicating whether EBITDA disclosure was compliant.

It is important to note that the variables DEC (dependent) and PNGDT (independent), classified as binary qualitative variables, allow for correlation analysis since they were treated as dummy variables coded to indicate the presence or absence of specific firm characteristics in the sample. According to Barbetta (2017), variables representing the presence or absence of a characteristic can be included in Pearson's linear correlation coefficient (R), which captures correlations of varying strength and direction.

Table 6 – Correlations[a] Between TA, YL, DEC, and PNGDT, 2021 – Sample (322 Companies)

Variables	Disclosed Compliant EBITDA (DEC)	Years Listed (YL)	Total Assets (TA)	Presence of Governance Level Different from Traditional (PNGDT)
DEC	1	--	--	--
YL	-0,028196	1	--	--
TA	-0,036678	0,031509	1	--
PNGDT	-0,055713	-0,382273	0,213506	1

Note: [a] Pearson's Linear Correlation Coefficient (R). The strength of the correlation can be interpreted as follows, for both positive and negative directions: 0.0 indicates no correlation; between 0.0 and 0.3 indicates a weak correlation; between 0.3 and 0.5 indicates a moderate correlation; and between 0.5 and 1.0 indicates a strong correlation (Cohen, 2008, as cited in Figueiredo Filho & Silva Júnior, 2009).
Source: Prepared by the authors based on the research data.

Based on Table 6, it is observed that: (a) DEC exhibits a weak negative correlation with YL, TA, and PNGDT. The coefficients of determination (R^2) indicate: (a) 0.22% between DEC and TA; (b) 0.18% between DEC and YL; and (c) 0.11% between DEC and PNGDT.

Finally, it should be noted that no correlations were calculated involving TCE (%) both because no hypotheses were formulated for this variable and due to the presence of a high number of outliers. This condition limited the application of winsorization or trimming techniques, which would have required adjustment levels exceeding 91%, potentially distorting the statistical analyses in either case.

4.7 Discussion of Results

This section presents the analysis of the research findings based on the tests of the variables included in the formulated hypotheses.

DOI:
ISSN: 2447 - 2921

The alternative hypothesis (H1) of Hypothesis 1, which assumes an association between the compatibility of disclosed EBITDA and specific sectors, was tested using Cramér's V coefficient (V) between the five largest sectors and the variable DEC (Disclosed Compliant EBITDA). The V coefficient indicated an insignificant association (0.0765), leading to the rejection of the alternative hypothesis and the acceptance of the null hypothesis (H0). Thus, the findings corroborate prior studies by Colombo et al. (2014), Gaspar (2015), and Kistner and Platt Neto (2022a), which opposed Hypothesis 1, and do not support the studies that originally grounded it. Therefore, regarding the five largest NAICS Level 1 sectors, no relationship was identified with the company's decision to disclose EBITDA in a compliant manner.

For Hypothesis 2, whose H1 assumes a positive relationship between EBITDA compatibility and time listed on the stock exchange, the V coefficient between DEC and YL quartiles was 0.0635, indicating an insignificant association. Pearson's R was −0.0282, indicating a weak negative correlation. Accordingly, H1 was rejected, as companies with longer listing periods did not demonstrate greater compliance in EBITDA disclosure compared to those with shorter listing durations in 2021. This result corroborates Kistner and Platt Neto (2022a), who also found no relationship between time listed and compliant EBITDA disclosure. Additionally, it contrasts with findings by Magalhães et al. (2011) and Bomfim et al. (2015), which suggested that disclosure increases with market experience. However, for EBITDA disclosure in 2018 (Kistner & Platt Neto, 2022a) and 2021 (this study), this pattern does not hold. As suggested by Kistner and Platt Neto (2022a), the absence of such a relationship may be attributed to the relatively recent standardization of EBITDA calculation, which provided similar adjustment periods across firms, regardless of listing date—except for those listed after 2012, when CVM Instruction No. 527 came into force.

Regarding Hypothesis 3, which posits a positive relationship between EBITDA compatibility and the adoption of higher corporate governance levels, the V and R coefficients were calculated between PNGDT and DEC. The V coefficient (0.0557) indicated an insignificant association, and R (−0.0557) indicated a weak negative relationship between compliant EBITDA disclosure and higher governance levels, leading to the rejection of H1. These findings corroborate studies by Souza et al. (2016), Aillón et al. (2013), and Kistner and Platt Neto (2022a), which also opposed Hypothesis 3. The result is contradictory to the expectation that higher governance levels are associated with more transparent and responsible disclosure practices, as also noted by Kistner and Platt Neto (2022a).

Hypothesis 4 assumes a positive relationship between EBITDA compatibility and firm size. The V coefficient between TA quartiles and DEC was 0.0429, indicating an insignificant association, while R was −0.0367, indicating a weak negative correlation. Thus, H1 is rejected and H0 is accepted. These findings are consistent with prior studies by Cunha and Ribeiro (2006), Magalhães et al. (2011), Aillón et al. (2013), Souza et al. (2016), Potrich et al. (2017), Nunes et al. (2020), and Kistner and Platt Neto (2022a). No relationship was observed between firm size and compliant EBITDA disclosure, suggesting that smaller firms exhibit similar capabilities in calculating and disclosing the indicator with quality.

Hypothesis 5 assumes that more than half of the companies with incompatible EBITDA would report overstated values. This was tested based on the percentage of overstatement, considering a tolerance of ±2%, as defined in Table 3 and Table 4 notes. The results showed that 50.55% of incompatible EBITDA were overstated, while 49.45% were understated. Although overstatements slightly predominated, the proportion did not exceed 51.00%, and therefore H1

DOI:
ISSN: 2447 - 2921

cannot be accepted. Given that the proportion falls within the 49.00% to 51.00% interval, H0 is accepted and H1 is rejected, indicating no generalized bias (neither overstatement nor understatement) in 2021. This result corroborates Kistner and Platt Neto (2022a), who also found no evidence of systematic overstatement bias.

To test Hypothesis 6, which posits an increase in the number of companies disclosing EBITDA with compliant values after the implementation of CVM regulations (from 2012 onward), the results of this study were compared with those of Gaspar (2015) for 2012 and 2013. Gaspar (2015) reported compliance rates of 43.3% in 2012 and 50.2% in 2013. In this study, for 2021, a compliance rate of 71.7% was observed, confirming H1. This finding corroborates Maragno et al. (2014) and Kistner and Platt Neto (2022a), who also identified increased compliance following regulatory implementation.

Overall, the findings for 2021 indicate that the tested corporate characteristics are not associated with the compatibility of disclosed EBITDA, consistent with Kistner and Platt Neto (2022a) for 2018. This suggests that EBITDA disclosure is no longer a differentiating factor among "better" firms but has become a standard informational requirement for stakeholders, which may explain the lack of statistical significance for corporate characteristics. The increase in compatibility appears to be primarily associated with the issuance of CVM Instruction No. 527.

Finally, during data collection (from corporate reports), some errors were identified in EBITDA calculations disclosed by companies. These included correct values reported at incorrect scales (e.g., thousands instead of millions of BRL), leading to miscalculations and resulting incompatibilities (overstatement or understatement), without apparent intentional misconduct. However, it is important to emphasize that CVM Resolution No. 80 (Brazil, 2022a) requires that voluntarily disclosed information be consistent and truthful and must not mislead users.

5 Conclusions

The objective of this study was achieved—namely, to identify the relationships between the compatibility of EBITDA values disclosed by companies listed on B3 and corporate characteristics related to industry sector, time listed, governance level, and total assets—as demonstrated by the results.

Based on the findings, five of the six proposed hypotheses were rejected. Only Hypothesis 6 was supported, which posited an increase in the number of companies disclosing EBITDA with compliant values following the implementation of CVM regulations from 2012 onward. The average compatibility rate for 2012 and 2013 was 46.8% (Gaspar, 2015), increasing to 77.5% in 2018 (Kistner & Platt Neto, 2022a), and subsequently declining to 71.7% in 2021 (this study). The decrease of 5.8 percentage points between 2018 and 2021 may be associated with the entry of newly listed companies that have not yet had sufficient time to adapt to the regulatory requirements. Notably, 79 companies (24.5% of the sample) went public after 2018.

Hypotheses 1 through 5 were rejected. Thus, the corporate characteristics examined in this study—firm size (total assets), time listed (in years), corporate governance level (differentiated from the Traditional segment), and industry sector (NAICS Level 1)—were not sufficient to explain the compatibility of EBITDA values in accordance with regulatory standards. Furthermore, no systematic bias toward overstatement in incompatible EBITDA values was identified. These findings corroborate Kistner and Platt Neto (2022a), who also found no relationship between EBITDA compatibility and corporate characteristics for 2018, nor evidence of overstatement bias.

In addressing the research question (What are the relationships between the compatibility of EBITDA values disclosed by companies listed on B3 and their corporate characteristics?), the results indicate that none of the tested variables representing corporate characteristics exhibited a significant relationship with EBITDA compatibility for 2021—despite the substantial sample coverage (81.5% of the population).

The lack of statistical significance in five of the six hypotheses suggests that the quality of voluntarily disclosed information—represented here by EBITDA—has reached a level of standardization in Brazil that is not associated with firm size or governance structure. For regulators, this may indicate that the regulation has fulfilled its role in promoting uniformity, although the presence of 28.3% incompatibility still warrants attention, particularly with respect to operational errors in scale identified during data collection. For investors and stakeholders, the findings suggest that greater reliability should not be assumed solely based on firm size or governance level. Additionally, verifying the reconciliation of EBITDA calculations is essential, given that incompatibility does not exhibit a systematic bias toward overstatement but rather reflects a balance between positive and negative discrepancies.

As a limitation, this study focuses exclusively on the year 2021, which restricts the generalizability of the findings to this period. However, by adopting a methodology consistent with Kistner and Platt Neto (2022a) for 2018, the results contribute to extending the temporal scope of inference across both studies. Notably, despite the larger sample size in 2021 (322 companies versus 236 in 2018), the same hypotheses were accepted or rejected in both studies, suggesting potential consistency in the findings.

Nevertheless, these results should be interpreted as reflective of a specific period, and different outcomes may emerge when analyzing other timeframes. Accordingly, future research should continue hypothesis testing across additional years to identify trends and build a longitudinal dataset. Moreover, future studies may incorporate additional variables related to corporate characteristics, based on the broader literature on corporate disclosure. Regarding the independent variable representing industry sectors, alternative classification systems—such as those used by B3 or Economatica—could be explored in place of NAICS.

References

AILLÓN, H. S.; SILVA, J. O.; PINZAN, A. F.; WUERGES, A. F. E. Análise das informações por segmento: divulgação de informações gerenciais pelas empresas brasileiras. **Revista Contemporânea em Contabilidade**, Florianópolis, v. 10, n. 19, p. 33-48, 2013. Disponível em: https://doi.org/10.5007/2175-8069.2013v10n19p33. Acesso em: 25 nov. 2025.

ALBUQUERQUE, F. H. F.; MARCELINO, M.; CARIANO, A. J. de A. A comparabilidade do EBITDA reportado pelas entidades cotadas em Portugal. **European Journal of Applied Business and Management**, Portugal, v. 3, n. 3, p. 1-21, 2017. Disponível em: http://nidisag.isag.pt/index.php/IJAM/article/view/264. Acesso em: 25 nov. 2025.

ANDRADE, G. V.; MURCIA, F. D. Uma análise crítica sobre os ajustes adicionais considerados nas divulgações da medida não GAAP "EBITDA ajustado" em relatórios de companhias listadas brasileiras. **Revista de Educação e Pesquisa em Contabilidade**, Brasília, v. 13, n. 4, p. 469-486, 2019. Disponível em: http://dx.doi.org/10.17524/repec.v13i4.2412. Acesso em: 25 nov. 2025.

BARBETTA, P. A. **Estatística aplicada às Ciências Sociais**. 9. ed. Florianópolis: Editora da UFSC, 2015.

BASU, R.; PIERCE, S.; STEPHAN, A. The Effect of Investor Inattention on Non-GAAP Disclosure. **Journal of Financial Reporting**, [s.l.], v. x, n. xx, p. 1-26, 2026. Disponível em: https://doi.org/10.2308/JFR-2023-020. Acesso em: 16 mar. 2026.

BECKER, J. L. **Estatística básica:** transformando dados em informação. Porto Alegre: Bookman, 2015.

BLACK, E. L. The ethical reporting of non-GAAP performance measures. **Revista Contabilidade & Finanças**, São Paulo, v. 27, n. 70, p. 7-11, 2016. Disponível em: https://doi.org/10.1590/1808-057x201690090. Acesso em: 25 nov. 2025.

BLACK, D. E.; CHRISTENSEN, T. E.; CIESIELSKI, J. T.; WHIPPLE, B. C. Non-GAAP reporting: Evidence from academia and current practice. **Journal of Business Finance & Accounting**, Londres, v. 45, n. 3-4, p. 259-294, 2018. Disponível em: https://doi.org/10.1111/jbfa.12298. Acesso em: 25 nov. 2025.

BOMFIM, E. T.; TEIXEIRA, W. S.; MONTE, P. A. Relação entre o *disclosure* da sustentabilidade com a governança corporativa: um estudo nas empresas listadas no IBrX-100. **Revista Sociedade, Contabilidade e Gestão**, Rio de Janeiro, v. 10, n. 1, p. 6-28, 2015. Disponível em: https://doi.org/10.21446/scg_ufrj.v10i1.13341. Acesso em: 25 nov. 2025.

BRADSHAW, M. T.; CHRISTENSEN, T. E.; GEE, K. H.; WHIPPLE, B. C. Analysts' GAAP earnings forecasts and their implications for accounting research. **Journal of Accounting and Economics**, Pensilvânia, v. 66, n. 1, p. 46-66, 2018. Disponível em: https://doi.org/10.1016/j.jacceco.2018.01.003. Acesso em: 25 nov. 2025.

BRAGA, J. P.; OLIVEIRA, J. R. S.; SALOTTI, B. M. Determinantes do nível de divulgação ambiental nas demonstrações contábeis de empresas brasileiras. **Revista de Contabilidade da UFBA**, Salvador, v. 3, n. 3, p. 81-95, 2009. Disponível em: https://portalseer.ufba.br/index.php/rcontabilidade/article/view/3819/2790. Acesso em: 25 nov. 2025.

BRASIL. **Instrução CVM n. 527, de 4 de outubro de 2012.** Dispõe sobre a divulgação voluntária de informações de natureza não contábil denominadas LAJIDA e LAJIR. Rio de Janeiro: Comissão de Valores Mobiliários, 2012. Disponível em: http://www.cvm.gov.br/legislacao/instrucoes/inst527.html. Acesso em: 25 nov. 2025.

BRASIL. **Lei n. 6.404, de 15 de dezembro de 1976.** Dispõe sobre as Sociedades por Ações. Brasília, DF: Presidência da República, 1976. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/l6404consol.htm. Acesso em: 25 nov. 2025.

BRASIL. **Resolução CVM n. 80, de 29 de março de 2022**. Dispõe sobre o registro e a prestação de informações periódicas e eventuais dos emissores de valores mobiliários admitidos à negociação em mercados regulamentados de valores mobiliários. Rio de Janeiro: Comissão de Valores Mobiliários, 2022a. Disponível em:

https://conteudo.cvm.gov.br/legislacao/resolucoes/resol080.html. Acesso em: 25 nov. 2025.

BRASIL. **Resolução CVM n. 156, de 23 de junho de 2022**. Dispõe sobre a divulgação voluntária de informações de natureza não contábil denominadas LAJIDA e LAJIR. Rio de Janeiro: Comissão de Valores Mobiliários: 2022b. Disponível em: https://conteudo.cvm.gov.br/legislacao/resolucoes/resol156.html. Acesso em: 25 nov. 2025.

BURGWAL, D. V. de; VIEIRA, R. J. O. Determinantes da divulgação ambiental em companhias abertas Holandesas. **Revista Contabilidade & Finanças**, São Paulo, v. 25, n. 64, p. 60-78, 2014. Disponível em: https://doi.org/10.1590/S1519-70772014000100006. Acesso em: 25 nov. 2025.

COELHO, F. S. EBITDA: a busca de uma melhor compreensão do maior vox populi do mercado financeiro. **Revista Pensar Contábil**, Rio de Janeiro, v. 6, n. 26, p. 41-49, 2005. Disponível em: http://www.atena.org.br/revista/ojs-2.2.3-06/index.php/pensarcontabil/article/viewFile/66/66. Acesso em: 25 nov. 2025.

COLOMBO, V. L. B.; HOFFMANN, R.; PLATT NETO, O. A.; BOLFE, C. Diferenças entre o valor do EBITDA divulgado pelas SA e o apurado metodologicamente: estudo de 257 SA brasileiras listadas na BM&FBOVESPA. *In:* CONGRESSO UFSC DE CONTROLADORIA E FINANÇAS, 5., 2014, Florianópolis. **Anais** [...]. Florianópolis: UFSC, 2014.

CORMIER, D.; MAGNAN, M. Corporate environmental disclosure strategies: determinants, costs and benefits. **The Journal of Accounting, Auditing & Finance**, Londres, v. 14, n. 4, p. 429-451, 1999. Disponível em: http://dx.doi.org/10.1177/0148558X9901400403. Acesso em: 25 nov. 2025.

CORMIER, D.; DEMARIA, S.; MAGNAN, M. Non-GAAP reporting and capital markets: contrasting France and Canada. **Journal of Financial Reporting and Accounting**, [s.l.], v. 22, n. 4, p. 990-1013, 2024. Disponível em: https://doi.org/10.1108/JFRA-11-2021-0383. Acesso em: 16 mar. 2026.

CORNEJO-SAAVEDRA, E.; DIAZ, D. Medidas de ganancia: EBITDA, EBIT, utilidad neta y flujo de efectivo. **Revista Economía y Administración**, Honduras, v. 1, n. 1, p. 36-40, 2006. Disponível em: http://repositorio.uchile.cl/bitstream/handle/2250/127394/153%20Cornejo-Diaz.pdf?sequence=1&isAllowed=y. Acesso em: 25 nov. 2025.

CUNHA, J. V. A.; RIBEIRO, M. S. Divulgação voluntária de informações de natureza social: Um estudo nas empresas brasileiras. *In:* ENCONTRO DA ANPAD – ENANPAD, 30., 2006, São Paulo. **Anais** [...]. São Paulo: USP, 2006.

DYE, R. A. An evaluation of 'essays on disclosure' and the disclosure literature in accounting. **Journal of Accounting and Economics**, Stanford, v. 32, n. 1-3, p. 181-235, 2001.

ELFRINK, R.; GEE, K. H.; HILLS, R.; WHIPPLE, B. C. **The Usefulness of EBITDA**. 2025. Disponível em: http://dx.doi.org/10.2139/ssrn.5127468. Acesso em: 16 mar. 2026.

FÁVERO, L. P.; BELFIORE, P. **Manual de análise de dados:** estatística e modelagem multivariada com Excel®, SPSS® e Stata®. Rio de Janeiro: Editora Gen, 2020.

FIGUEIREDO FILHO, D. B.; SILVA JÚNIOR, J. A. da. Desvendando os mistérios do coeficiente de correlação de Pearson (r). **Revista Política Hoje**, Recife, v. 18, n. 1, p. 115-146, 2009. Disponível em: https://periodicos.ufpe.br/revistas/politicahoje/article/viewFile/3852/3156. Acesso em: 25 nov. 2025.

FOLSTER, A.; CAMARGO, R. V. W.; VICENTE, E. F. R. Management earnings forecast disclosure: a study on the relationship between EBITDA forecast and financial performance. **Gestão, Finanças e Contabilidade**, Campinas, v. 5, n. 4, p. 108-124, 2015. Disponível em: https://doi.org/10.18028/rgfc.v5i4.1215. Acesso em: 25 nov. 2025.

FREZATTI, F.; AGUIAR, A. B. de. EBITDA: possíveis impactos sobre o gerenciamento das empresas. **Revista Universo Contábil**, Blumenau, v. 3, n. 3, p. 7-24, 2007. Disponível em: https://doi.org/10.4270/ruc.20073. Acesso em: 25 nov. 2025.

GASPAR, M. F. Z. **Diferenças entre o valor do EBITDA divulgado pelas SA e o definido pela CVM:** estudo das companhias listadas na BM&FBOVESPA. 2015. 113 f. Trabalho de Conclusão de Curso (Graduação em Ciências Contábeis) - Universidade Federal de Santa Catarina, Florianópolis, 2015.

GUILLAMON-SAORIN, E.; ISIDRO, H.; MARQUES, A. Impression management and non-GAAP disclosure in earnings announcements. **Journal of Business Finance and Accounting**, [s.l.], v. 44, n. 3-4, p. 448-479, 2017. Disponível em: https://doi.org/10.1111/jbfa.12238. Acesso em: 25 nov. 2025.

GRADILONE, C. **Para que serve o EBITDA**. Revista Exame, 2011. Disponível em: https://exame.com/revista-exame/para-que-serve-o-ebitda-m0052337/. Acesso em: 25 nov. 2025.

ISIDRO, H.; MARQUES, A. Industry competition and non-GAAP disclosures. **Accounting and Business Research**, Londres, v. 51, n. 2, p. 156-184, 2020. Disponível em: https://doi.org/10.1080/00014788.2020.1798209. Acesso em: 25 nov. 2025.

IUDÍCIBUS, S. de. **Análise de balanços**. 9. ed. São Paulo: Editora Atlas, 2008.

KISTNER, S. P.; PLATT NETO, O. A. Características corporativas sobre a divulgação voluntária do EBITDA pelas companhias listadas na B3 em 2018. **Revista Conhecimento Contábil**, Mossoró, v. 10, n. 2, p. 89-110, 2020. Disponível em: https://doi.org/10.31864/rcc.v10i2.2686. Acesso em: 25 nov. 2025.

KISTNER, S. P.; PLATT NETO, O. A. Características corporativas relacionadas à compatibilidade de valores dos EBITDA divulgados pelas companhias listadas na b3. *In:* BRAGA, D. L. S. **Pesquisas e inovações em Ciências Humanas e Sociais: produções científicas multidisciplinares no século XXI**. Volume 1. Rio de Janeiro: Instituto Scientia, 2022a. pp. 313-346. Disponível em: https://doi.org/10.55232/1083002.18. Acesso em: 25 nov. 2025.

KISTNER, S. P.; PLATT NETO, O. A. Localizações e tipos de EBITDA divulgados pelas companhias listadas na B3. *In:* OLIVEIRA, E. J.; LOPES, R. H.; LACERDA, M. E. B.; RUWER, L. M. E.; COSTA, P. R. C. **Tópico em Administração**. Volume 47. Belo Horizonte:

Poisson, 2022b. pp. 83-96. Disponível em: https://doi.org/10.36229/978-65-5866-225-9.CAP.07. Acesso em: 25 nov. 2025.

KISTNER, S. P.; PLATT NETO, O. A. Relações entre as características corporativas e a divulgação voluntária do EBITDA pelas companhias listadas na B3 no ano de 2021. *In:* INTERNATIONAL CONFERENCE IN MANAGEMENT AND ACCOUNTING (ICMA), V., 2023, Online. **Anais** […]. Online: Unochapecó, 2023.

KRAEMER, M. E. P. Contabilidade criativa maquiando as demonstrações contábeis. **Pensar Contábil**, Rio de Janeiro, v. 7, n. 28, p. 1-13, 2005. Disponível em: http://www.spell.org.br/documentos/ver/21810/contabilidade-criativa--maquiando-as-demonstracoes-contabeis. Acesso em: 25 nov. 2025.

MACEDO, M. A. S.; MACHADO, M. R.; MURCIA, F. D.; MACHADO, M. A. V. Análise da relevância do Ebitda versus fluxo de caixa operacional no mercado brasileiro de capitais. **Advances in Scientific and Applied Accounting**, São Paulo, v. 5, n. 1, p. 99-130, 2012. Disponível em: http://asaa.anpcont.org.br/index.php/asaa/article/view/72. Acesso em: 25 nov. 2025.

MAGALHÃES, L. R. dos R.; PINHEIRO, L. E. T.; LAMOUNIER, W. M. Fatores que favorecem a compreensão da extensão da divulgação sobre partes relacionadas: estudo nas companhias listadas no novo mercado da BM&FBovespa. **Revista Sociedade, Contabilidade e Gestão**, Rio de Janeiro, v. 6, n. spe, p. 22-37, 2011. Disponível em: https://doi.org/10.21446/scg_ufrj.v6i3.13249. Acesso em: 25 nov. 2025.

MARAGNO, L. M. D.; BORBA, J. A.; FEY, V. A. Como as empresas mais negociadas no BM&FBOVESPA divulgam o EBITDA? **Revista de Contabilidade do Mestrado em Ciências Contábeis da UERJ**, Rio de Janeiro, v. 19, n. 1, p. 58-79, 2014. Disponível em: https://doi.org/10.12979/8194. Acesso em: 25 nov. 2025.

MARTINS, E.; DINIZ, J. A.; MIRANDA, G. J. **Análise avançada das demonstrações contábeis:** uma abordagem crítica. São Paulo: Editora Atlas, 2018.

MCCLURE, B. **A clear look at EBITDA**. Investopedia, 2019. Disponível em: https://www.investopedia.com/articles/06/ebitda.asp. Acesso em: 25 nov. 2025.

MEY, M. T. **Investigating the association between the reconciliation quality of EBITDA disclosure by JSE-listed companies and factors associated with opportunistic disclosure**. 2019. 189 f. Dissertação (Mestrado em Contabilidade) Universidade de Stellenbosch, Stellenbosch, 2019.

MEY, M. T.; LAMPRECHT, C. The many faces of earnings before interest, tax, depreciation and amortisation (EBITDA): assessing the decision usefulness of EBITDA disclosure by Johannesburg Stock Exchange-listed companies. **Journal of Economic and Financial Sciences**, Durbanville, v. 13, n. 1, p. 1-13, 2020. Disponível em: https://doi.org/10.4102/jef.v13i1.488. Acesso em: 25 nov. 2025.

MILLER, J. S. Opportunistic disclosures of earnings forecasts and non-GAAP earnings

measures. **Journal of Business Ethics**, [s.l.], v. 89, n. 1, p. 03-10, 2009. Disponível em: https://doi.org/10.1007/s10551-008-9903-0. Acesso em: 25 nov. 2025.

MURCIA, F. D.; SANTOS, A. dos. Fatores determinantes do nível de *disclosure* voluntário das companhias abertas no Brasil. **Revista de Educação e Pesquisa em Contabilidade**, Brasília, v. 3, n. 2, p. 72-95, 2009. Disponível em: https://doi.org/10.17524/repec.v3i2.68. Acesso em: 25 nov. 2025.

MUTTAKIN, M. B.; KHAN, A. Determinants of corporate social disclosure: empirical evidence from Bangladesh. **Advances in Accounting, incorporating Advances in International Accounting**, [s.l.], v. 30, n. 1, p. 168-175, 2014. Disponível em: https://doi.org/10.1016/j.adiac.2014.03.005. Acesso em: 25 nov. 2025.

NICHOLS, N.; GRAY, S.; STREET, D. Pro forma adjustments to GAAP earnings: bias, materiality, and SEC action. **Research in Accounting Regulation**, [s.l.], v. 18, p. 29-52, 2005. Disponível em: https://doi.org/10.1016/S1052-0457(05)18002-3. Acesso em: 25 nov. 2025.

NUNES, P. P.; SANTOS, O. M. dos; MARQUES, J. A. V. da C. Determinantes do nível de divulgação das informações por segmento (CPC 22) das empresas brasileiras de capital aberto listadas no IBrX-50. **Revista Contemporânea de Contabilidade**, Florianópolis, v. 17, n. 42, p. 03-25, 2020. Disponível em: https://doi.org/10.5007/2175-8069.2020v17n42p3. Acesso em: 25 nov. 2025.

OLIVEIRA, N. L. **Efeito da divulgação de relatórios GAAP e não GAAP sobre o valor das ações no mercado brasileiro de capitais**. 2018. 117 f. Dissertação (Mestrado em Ciências Contábeis) - Universidade Brasília, Brasília, 2018.

ORLOVAS, A. D.; SERRA, R. G.; CARRETE, L. S. A utilização do múltiplo EV/EBITDA na precificação de IPO's no mercado brasileiro. **Revista Contemporânea de Contabilidade**, Florianópolis, v. 15, n. 37, p. 34-51, 2018. Disponível em: http://dx.doi.org/10.5007/2175-8069.2018v15n37p34. Acesso em: 25 nov. 2025.

POTRICH, R.; SABADIN, M.; ANGONENSE, R.; PEREIRA, A. da S. Empresas potencialmente poluidoras: determinantes que influenciam a divulgação voluntária de informações ambientais. **Revista Ambiente Contábil**, Natal, v. 9, n. 2, p. 41-59, 2017. Disponível em: https://periodicos.ufrn.br/ambiente/article/view/9696. Acesso em: 25 nov. 2025.

REA, L. M.; PARKER, R. A. **Designing and conducting survey research:** a comprehensive guide. 4. ed. [s.l.]: Jossey-Bass, 2014.

ROZENBAUM, O. EBITDA and managers' investment and leverage choices. **Contemporary Accounting Research**, Toronto, v. 36, n. 1, p. 513-546, 2017. Disponível em: https://doi.org/10.1111/1911-3846.12387. Acesso em: 25 nov. 2025.

RUFINO, M. A.; MACHADO, M. R. Fatores determinantes da divulgação de informações voluntária social: Evidências empíricas no brasil. **REPeC: Revista de Educação e Pesquisa em Contabilidade**, Brasília, v. 9, n. 4, p. 380-396, 2015. Disponível em: http://dx.doi.org/10.17524/repec.v9i4.1300. Acesso em: 25 nov. 2025.

SCHIPPER, K. Required disclosures in financial reports. **The Accounting Review**, [s.l.], v. 82, n. 2, p. 301-326, 2007. Disponível em: https://www.jstor.org/stable/30243468. Acesso em: 25 nov. 2025.

SCHVIRCK, E.; LUNKES, R. J.; GASPARETTO, V. Divulgação de informações por segmento: panorama da aplicação do CPC 22. **Revista de Educação e Pesquisa em Contabilidade**, Brasília, v. 7, n. 2, p. 131-146, 2013. Disponível em: https://doi.org/10.17524/repec.v7i2.571. Acesso em: 25 nov. 2025.

SILVA, F. de A. E.; PINHEIRO, L. E. T. Estágio atual de evidenciação e fatores que influenciam o disclosure de informações por segmentos por empresas brasileiras. **Revista de Contabilidade e Controladoria**, Florianópolis, v. 4, n. 3, p. 78-94, 2012. Disponível em: http://dx.doi.org/10.5380/rcc.v4i3.29897. Acesso em: 25 nov. 2025.

SILVA, M. A. **Aplicação de leis de potência para tratamento e classificação de tamanho de empresas:** uma proposta metodológica para pesquisas contábeis. 2008. 122 f. Dissertação (Mestrado em Contabilidade) - Faculdade de Economia, Administração e Contabilidade de Ribeirão Preto, Ribeirão Preto, 2008.

SKILLIUS, A.; WENNBERG, U. **Continuity, credibility and comparability:** key challenges for corporate environmental performance measurement and communication. Lund: The international Institute for Industrial Environmental Economics at Lund University, 1998. Disponível em: https://www.eea.europa.eu/publications/ESS09. Acesso em: 25 nov. 2025.

SOUSA, C. B.; SILVA, A. F.; RIBEIRO, M. S.; WEFFORT, E. F. J. Valor de mercado e *disclosure* voluntário: Estudo empírico em companhias listadas na BM&FBovespa. **Revista Ambiente Contábil**, Natal, v. 6, n. 2, p. 94-115, 2014. Disponível em: https://periodicos.ufrn.br/ambiente/article/view/4886. Acesso em: 25 nov. 2025.

SOUZA, G. M. de; SOUSA, A. M. de; MEURER, R. M.; NORILLER, R. M.; SILVA, J. P. da. Relação do ROE com variáveis exógenas no setor Finance na América Latina. *In:* SIMPÓSIO DE CONTABILIDADE E FINANÇAS DE DOURADOS – SICONFI, 8., 2018. **Anais** [...]. Mato Grosso do Sul: UFGD, 2018.

SOUZA, T. da S.; SCHÄFER, J. D.; GASPARETTO, V. Análise do nível de evidenciação de informações por segmento das companhias brasileiras listadas no IBrX-50. **Revista Ambiente Contábil,** Natal, v. 8, n. 2, p. 59-75, 2016. Disponível em: https://periodicos.ufrn.br/ambiente/article/view/8012. Acesso em: 25 nov. 2025.

VIEIRA, C. A. M.; GIRÃO, L. F. P. Relevância da Instrução CVM 527 para o mercado de capitais: um estudo sobre a padronização do EBITDA pela CVM. **ReCont: Registro Contábil**, Maceió, v. 5, n. 2, p. 87-99, 2014. Disponível em: https://www.researchgate.net/publication/321758816_RELEVANCIA_DA_INSTRUCAO_CVM_527_PARA_O_MERCADO_DE_CAPITAIS_UM_ESTUDO_SOBRE_A_PADRONIZACAO_DO_EBITDA_PELA_CVM. Acesso em: 25 nov. 2025.