

The effects of IFRS 16 adoption on the Value Relevance of EBITDA: a study on Latin-American public firms

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Abstract

Objective: To assess how the changes in the accounting for operating leases introduced by IFRS 16 affected the value relevance of EBITDA in Latin American companies.

Method: The study used 2,432 firm-year observations from Brazilian (1,344), Chilean (628), and Mexican (460) companies, divided into two periods: before and after the adoption of IFRS 16. To assess the impact of the standard, ordinary least squares regression with firm and year fixed effects was applied.

Results: There was no increase in the informational relevance of EBITDA after IFRS 16 (Brazil and Mexico). However, when considering firm- and country-specific effects, EBITDA's relevance increased, suggesting that the impact of the new standard on the relevance of information is linked to specific characteristics of the companies and countries analyzed, rather than to a general condition affecting all companies.

Contributions: The study highlights different forms of implementation and interpretation of the standard by country, which may compromise the comparability of financial statements. The findings reinforce that investors should carefully observe how different sectors and countries are affected by new standards; for regulators, the results support the monitoring of implementation across different jurisdictions; and companies should report EBITDA with caution, as it may influence stock pricing, especially when a newly issued standard has significant impacts on its values.

Keywords: Value Relevance; IFRS 16; Leasing; EBITDA.

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Introduction

For the smooth functioning of the financial market, according to the Efficient Market Hypothesis (EMH) (Fama, 1971), prices must reflect all available information, including accounting information. In this context, the relevance of accounting and financial information is measured by its ability to influence the prices of assets in the capital market.

Barth et al. (2023) highlight that, in the last two decades, the transition from an industrial economy to one based on services and information technology has reduced the relevance of traditional performance measures, such as accounting income, while increasing the relevance of alternative indicators.

According to KPMG (2016), 77% of the 235 Brazilian firms analyzed disclosed EBITDA between 2013 and 2015, making this the most used alternative measure. In 2017, the International Accounting Standards Board (IASB) issued International Financial Reporting Standard (IFRS) 16, which changed the accounting for operating leases, previously governed by International Accounting Standard (IAS) 17.

Before IFRS 16, IAS 17 (CPC 06) classified leases as either finance or operating. In a finance lease, the contract was accounted for as an asset by the lessee; in an operating lease, only the rent expense was recorded in the income statement, with no impact on assets or EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization). This compromised the timeliness of information, as the debt was only known at the end of the contract and after all expenses had been recognized.

The IASB estimated that 85% of leases were not on the financial statements (Lloyd, 2016) because they were operating leases. This went against the informational needs of investors, making it necessary to standardize the accounting for all contracts by lessees.

IFRS 16 determined that all leasing contracts, regardless of their nature, must be recognized on the lessee's balance sheet from the beginning, generating a right-of-use asset and a lease liability, both recorded at the present value of future payments, with no initial impact on shareholders' equity. As a result, rent expense ceased to exist. The asset began to be depreciated, generating a depreciation expense, and the liability was updated with interest, generating a financial expense, consequently impacting shareholders' equity.

Since EBITDA excludes depreciation and financial expenses, its value was expected to change, especially in firms

with significant operating leases (EFRAG, 2017; Magli et al., 2018), which was confirmed by Cardoso and Britto (2023). Even if investors adjusted EBITDA, it was essential that these values were clearly presented in the statements or in the notes. Otherwise, it would be necessary to estimate them, which, according to the IASB (2013), could generate distortions depending on the assumptions adopted. In light of the EMH, it is expected that the relevance of EBITDA has changed after the adoption of IFRS 16, as the metric began to reflect more complete information.

Considering the importance attributed to EBITDA by the market (KPMG, 2016) and the impacts of IFRS 16 on this metric (Cardoso & Britto, 2023), the main purpose of this research is to evaluate how the changes in operating lease accounting brought by IFRS 16 affected the value relevance of EBITDA in Latin American firms.

Although a significant impact on EBITDA was expected, Lloyd (2016) argued that the effect on Net Income would be negligible. As previous studies show divergent results – some indicating greater relevance of EBITDA (e.g., Lima et al., 2022; Macedo et al., 2012) and others favoring Net Income (e.g., Barton et al., 2010; Francis et al., 2003) – to complement the analysis, the second purpose was to compare the impact of IFRS 16 on the value relevance of EBITDA and Net Income, broadening the understanding of its influence on market decisions.

EBITDA is also very important for standard-setting bodies. For example, in the preparation of IFRS 18 – Presentation and Disclosure of Primary Financial Information, the IFRS Foundation (2024a) analyzed the costs and benefits of the standard, including adjusted EBITDA. According to Salotti (2024), IFRS 18 requires greater detail on the adjustments made to this metric, reinforcing its relevance in the financial context.

Studies on the impact of IFRS 16 on the relevance of financial information are still recent (e.g., Rocha et al., 2021), especially in Latin American countries. The majority analyze data from the US-Europe axis, and this study contributes to the literature by including Brazil, Chile, and Mexico, countries that have distinct economic and structural characteristics – despite their geographical proximity – allowing for a broader investigation into the relevance of EBITDA.

These disparities among countries can be attributed to historical, economic, and cultural factors that generate

regional differences (Nobes & Parker, 2008), such as tax burden (Paes, 2013), which influence accounting metrics, such as EBITDA and Net Income, and their relevance.

Most recent studies focus on other aspects of the relevance of accounting information, and not on EBITDA (see Barth et al., 2023; Batistella et al., 2021; Bonilla, 2022; Chen et al., 2020; Dunham & Grandstaff, 2022; Lima et al., 2022; Magli et al., 2018; Marques et al., 2022; Santos & Souza, 2023; Utami et al., 2024). Those that do address EBITDA (e.g., Black et al., 2018; Francis et al., 2003; Habib, 2010; Macedo et al., 2012) do not analyze the impacts of IFRS 16. Even when the standard is considered (Cardoso & Britto, 2024; EFRAG, 2017; Magli et al., 2018), its informational relevance is not investigated.

Giner and Pardo (2018) investigated Spanish firms before the standard, estimating its possible effects on operating lease liabilities, but not on EBITDA. More recently, Erickson et al. (2024) studied the impact of the updated leasing standard issued by the Financial Accounting Standards Board (FASB), but also without including EBITDA. Messias et al. (2022) and Cardoso and Britto (2024) investigated IFRS 16 on financial indicators such as leverage and liquidity, but did not evaluate how the impact on EBITDA would affect its relevance for the market, as our study does.

The analysis was performed with Ordinary Least Squares models with fixed effects based on Ohlson, with interactions for the post-IFRS 16 period. A multilevel hierarchical linear model (levels: country and firm) was also used to capture heterogeneity. The sample covers 2015 to 2022, with 2,432 firm-year observations.

The results indicate that, in general, net income had more statistical significance than EBITDA, as the latter did not show a change in informational relevance with IFRS 16. However, when considering specific firm and country effects, the relevance of EBITDA increased, indicating contextual effects. Net income, on the other hand, was only significant when the firm level was considered, reinforcing that the effects of the standard vary according to particular characteristics.

This study highlights the importance of considering the industry and jurisdiction when evaluating the impacts of new accounting standards. This reinforces the need for investors to be attentive to the industries in which they invest, especially in the face of standards like IFRS 16, which affect different segments in different ways. Standard-setting bodies should observe how these standards are implemented in each country. For firms, the results indicate

that the degree of impact of a standard on their statements can be directly reflected in their perception by the market.

2 Literature Review

2.1 Brazil vs. Chile vs. Mexico: Differentiating Characteristics

Brazil, Chile, and Mexico are emerging economies in Latin America with legal systems originating from the French model. Brazil and Mexico have the largest GDPs in the region (World Bank, 2024), while Chile ranks fifth. Despite their geographical proximity, they have cultural, economic, and legal differences that can influence the application of accounting standards (Nobes & Parker, 2008).

Santana et al. (2022) point out that Brazil and Mexico have similar market capitalization, but Brazilian shares account for 75% of total trading in Latin America. The Chilean market, although smaller, has reached a capitalization of over 100% of its Gross Domestic Product (GDP).

Regarding stability, Oliveira et al. (2021) identified less currency volatility in Mexico and Chile between 1995 and 2016. Capital control policies also varied: Mexico maintained high levels of control with little fluctuation, while Brazil and Chile faced large fluctuations, with sharp declines in the early 2000s.

A Deloitte (2014) survey highlighted differences in industrial composition based on 2013 revenue: in Brazil, the main sectors were Oil and Gas, Food, and Construction; in Chile, Retail, Oil and Gas, and Transportation; and in Mexico, Information, Retail, and Food.

Furthermore, studies by Leuz (2010) and Isidro et al. (2020) point to institutional differences, such as enforcement, creditor rights, and the rule of law. Minkov and Kaasa (2022) classified Chile as the least collectivist of the three, which, according to Gray and Vint (1995) and Batistella et al. (2021), may be related to greater distrust in the capital market. This aligns with Isidro et al.'s (2020) finding that Chile has less interpersonal trust. Paradoxically, the same study found that Chile has better quality financial information, which can influence the relevance of accounting information differently compared to Brazil and Mexico.

2.2 Value Relevance of Accounting Information

Ball and Brown (1968) were pioneers in investigating the relationship between income and stock prices. However, for years, research (Barth et al., 2023;

Collins et al., 1997; Lev, 2018) has shown a deterioration in the usefulness of accounting income, which no longer adequately reflects firm performance.

Several studies have examined value relevance in several contexts and markets, but the results are inconsistent. Some studies indicate that Net Income is relevant (Erickson et al., 2024; Ficco et al., 2014; Giner & Pardo, 2018; Ki et al., 2019; Lima et al., 2022; Macedo et al., 2012), while others show that this relevance varies depending on the group of firms analyzed (Martínez et al., 2012). There is also no consensus on Shareholders' Equity. Some research indicates that Shareholders' Equity is relevant or that its relevance has increased (Collins et al., 1997; Erickson et al., 2024; Ki et al., 2019; Lima et al., 2022; Macedo et al., 2012), and others indicate the opposite (Ficco et al., 2014; Martínez et al., 2012).

Collins et al. (1997) studied the evolution of the value relevance of financial information over forty years and found a decline in the relevance of Net Income and an increase in that of Shareholders' Equity. This change was attributed to the increase and magnitude of extraordinary items, a higher frequency of losses, and changes in the average size of firms and the intensity of intangible assets over time. Later studies, such as Barth et al. (2008) and Ki et al. (2019), found that the adoption of IFRS increased the association between accounting values and stock prices or returns, in developed countries and the South Korean market, respectively.

In contrast, Ficco et al. (2014) found relevance for information on net income, but not for Shareholders' Equity. Martínez et al. (2012) found no relevance for either indicator in Argentine firms, although they did find significance for income and Shareholders' Equity in firms in Chile, Colombia, and Mexico. For Brazil and Peru, income was not considered relevant.

Differences in results may be associated with the socioeconomic context and the period analyzed. While Collins et al. (1997) focused on US firms until 1993 and Barth et al. (2008) on developed countries until 2003, Martínez et al. (2012) and Ficco et al. (2014) analyzed Latin American firms in the 2000s, a period marked by the subprime crisis and before the full adoption of IFRS in the region.

There is a wide range of research analyzing the relevance of accounting information and an even wider range of their findings, which vary according to institutional and temporal context. The next subtopic discusses studies that pointed to the relevance of

EBITDA for stock returns or prices before IFRS 16.

2.3 Research on EBITDA: Formulation of Research Hypotheses

Bradshaw and Sloan (2002) found that non-GAAP (Generally Accepted Accounting Principles) measures, such as those adjusted for non-recurring or non-cash items, tend to have greater value relevance than traditional accounting income. EBITDA, not being regulated information, is called a non-GAAP measure, while net income is standardized by the IASB. For Ribeiro et al. (2019), the provision of non-GAAP information responds to a demand for information that is not met solely by profit.

As mentioned, IFRS 16 changed the accounting for operating leases, affecting EBITDA and, to a smaller extent, Shareholders' Equity and Net Income. EBITDA was expected to be highly impacted, especially in sectors like aviation (EFRAG, 2017; Magli et al., 2018). In Brazil, Messias et al. (2022) and Cardoso and Britto (2023) confirmed this effect, observing an average increase in EBITDA after the adoption of the standard, with a greater impact on the retail and aviation sectors. These findings suggest that IFRS 16 may have modified the relevance of EBITDA by making its information more timely and accurate. This theory is consistent with Black et al. (2018), who state that information will only be used if it is considered reliable.

Xu et al. (2017), when simulating the effects of IFRS 16 on 165 Australian firms, also found relevant impacts on financial indicators and their usefulness for investors. However, they did not identify a change in the relevance of Net Income. As the data used did not yet include the standard's changes, the authors used a method to include such information based on estimates and compared it with the information before the change.

Similarly, Erickson et al. (2024) found an increase in the relevance of operating lease information after the update of the FASB standard. A similar result was found by Utami et al. (2024), when analyzing data from 17 Asia-Pacific countries after the application of IFRS 16.

On the other hand, Giner and Pardo (2018) studied Spanish firms before the adoption of IFRS 16 and found that investors were already pricing the information disclosed in the retail sector. Martins et al. (2013) studied 43 Brazilian firms between 2010 and 2011 and concluded that there was no evidence that the information on operating leases disclosed in the notes had relevance. This Brazilian evidence suggests that investors were not pricing this information in the same way as Spanish firms, indicating a potential

for change in this market with the adoption of IFRS 16.

Although there are no published studies that evaluate the impact of IFRS 16 in other Latin American countries, the similarity in legal origin and the timing of IFRS adoption could indicate similar effects. On the other hand, specific characteristics of each of them – such as those found by Leuz (2010) and Isidro et al. (2020) – could lead to conflicting results among the different jurisdictions, which reinforces the need for a more in-depth empirical analysis.

Given the significant change of IFRS on EBITDA for firms that had this type of contract (EFRAG, 2017; Lloyd, 2016; Magli et al., 2018), it is expected that this change has impacted the relevance of the indicator. Until then, there was no evidence that the capitalization of operating leases in the Latin American market improved the explanatory capacity of total assets and liabilities (Martins et al., 2013), as it occurred in other markets (Giner & Pardo, 2018).

As IFRS 16 seeks to increase comparability between firms that use operating and finance leases, it is expected that this greater transparency has generated a positive impact on the relevance of EBITDA for investors. This is because, with the new standard, EBITDA begins to reflect information that before might not even have been presented, making it a more complete and, possibly, more relevant indicator for decision-making. Thus, the following research hypothesis is formulated:

H1: The implementation of IFRS 16 increased the relevance of EBITDA information.

Previous research has compared the relevance of EBITDA with other performance measures in different contexts and markets, with diverse conclusions. For example, Francis et al. (2003) studied American firms in 16 economic industries from 1990 to 2000 and found that, in all cases, net income was superior to EBITDA in terms of relevance, indicating that the latter has incremental value. Similarly, Habib (2010) observed greater relevance of earnings in the Australian market.

However, Barton et al. (2010) concluded that EBITDA stands out in environments with low informational quality, including the results from Chile and Mexico. They understand that since EBITDA better reflects changes in cash flows, it is considered more useful information. Based on the results of McVay (2006), they argue that this better explanation of cash flows is related to the incentive for managers to place bad information towards the end of the income statement.

This may be related to what was stated by Black et al. (2018), who believe that when GAAP information has a certain degree of noise, managers can use non-GAAP performance information to provide a clearer signal of performance. Similarly, Ribeiro et al. (2019) found that non-GAAP earnings measures are more relevant than income calculated according to the standards.

Research on the relevance of EBITDA has also been conducted in the Brazilian market. Lima et al. (2022) investigated the value relevance of the new operating income, EBITDA, and Net Income. With a sample of 149 firms during the period from 2010 to 2019, they found that EBITDA is superior to net income. In the same way, Macedo et al. (2012) analyzed 687 observations referring to Brazilian firms from 2006 to 2010 and found that EBITDA has value relevance.

The difference in relevance between EBITDA and Net Income can be explained by contextual and market factors such as capital structure and tax burden, which directly affect Net Income but not EBITDA. Previous research has pointed out that institutional and economic factors influence the relevance of information (Barth et al., 2023; Barton et al., 2010; Batistella et al., 2021; Bonilla, 2022). In sectors with high levels of fixed assets and high financial liabilities, EBITDA can be more efficient, as these elements impact Net Income more directly.

Net income can be influenced by accounting estimates, such as those related to depreciation, making EBITDA a more predictable and possibly more relevant metric for investor decisions. Ribeiro et al. (2019) highlight a market demand for non-GAAP information, understanding that information that follows accounting regulations is conservative and does not meet the informational need.

The use of EBITDA, however, has been done without any verification of its calculation method (Magli et al., 2018). For Black et al. (2018), profit was more relevant since EBITDA, as additional information, can be manipulated by managers.

On the other hand, with the application of IFRS 16, rent expenses were replaced by depreciation and financial expenses, which can lead EBITDA to better reflect lease contracts and avoid relevant differentiations in the comparison between companies that buy or lease assets. Net Income, in turn, tends to be less impacted by this normative change.

In summary, IFRS 16 standardizes the accounting for leases, which makes EBITDA a more comparable

indicator between companies that have different types of contracts. Meanwhile, Net Income is little impacted by the standard but is affected by contextual and market factors. Adding to this, the Latin American market is an environment with low informational quality, where EBITDA proves to be superior because it has less noise. Thus, it is expected that EBITDA, which is already seen as an indicator less influenced by accounting estimates, became an even better metric for analyzing operational performance. Thus, the following hypothesis is formulated:

H2: The relevance of EBITDA is superior to the relevance of Net Income after the implementation of IFRS 16.

3 Methodological Procedures

3.1 Sample

The sample for the present study, as well as all variables, was obtained from the Capital IQ database and includes 2,432 firm-year observations from non-financial Latin American firms: Brazilian (1,344), Chilean (628), and Mexican (460). The possibility of including other Latin American countries, such as Argentina, Peru, and Colombia, was analyzed; however, the number of observations from these countries was insufficient.

Firms with zero stock trading in the analyzed year were excluded, indicating low liquidity. Firms with negative Shareholders' Equity were also excluded, as the model used does not work for these cases (Jan & Ou, 2012). These authors demonstrated that the market evaluates firms with negative Shareholders' Equity differently from those with positive Shareholders' Equity. Considering that the relationship between price and Shareholders' Equity is expected to be positive – that is, the higher the Shareholders' Equity, the higher the price – the inclusion of firms with negative Shareholders' Equity could improperly compromise the relevance of this variable in the analysis. Based on the boxplot analysis, an outlier was found in the sample of Brazilian firms related to three variables of interest, which was excluded for the analysis of the results.

The chosen period is justified by the need to analyze two moments. A more recent one starting on January 1, 2019, to December 31, 2022, considering the entry into force of IFRS 16, which deals with lease accounting; and an older one with the same number of years, from January 1, 2015, to December 31, 2018, before the entry into force of the said standard.

It should be noted that, in the analyzed period, IFRS were already applied to all publicly traded firms in the

three countries (IFRS Foundation, 2024b). Brazil and Chile adopted them in 2010 and Mexico in 2012.

3.2 Data Analysis Method

The panel data technique with fixed year and firm/industry effects was used to run the models, similar to Chen et al. (2020). For this, Equation (1) was applied in the Stata® software version 12.

$$P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 LL_{i,t} + \beta_3 EBITDA_{i,t} + \beta_4 PL * IFRS16_{i,t} + \beta_5 LL * IFRS16_{i,t} + \beta_6 EBITDA * IFRS16_{i,t} + \epsilon_i \quad (1)$$

Where P corresponds to the logarithm of the closing price of shares i on April 30 of year t, PL is the Shareholders' Equity per share in t for each i, LL represents the Net Income per share in t for each i, EBITDA represents the EBITDA per share at time t for each i, IFRS 16 equals 1 if the period is post-IFRS 16 and 0 otherwise, and the interactions, which represent the incremental effect of the adoption of IFRS 16 on the relevance of the accounting variables.

To ensure that the accounting information was already published, the price was measured four months after the end of the fiscal year, following the logic of previous research (Barth et al., 2008; Barth et al., 2023; Collins et al., 1997; Ficco et al., 2014; Macedo et al., 2012).

We opted to use price instead of return because, as observed by Barth and Clinch (2009), returns do not perform well in models like the one adopted in this research. These models are more suitable for investigating the incorporation of new accounting information by the market within the return interval. This is because the model specification with returns increases the variation in the regression error term in relation to the variation in the information of the independent variables, which leads to less efficient coefficient estimates. In addition, as the return specification is a specification in which the variables are expressed in terms of annual variations, there is the potential for the independent variables to be correlated with the regression error term.

For industry classification, we used the Standard Industrial Classification (SIC) code, provided by Capital IQ.

In the analysis of the main model, we decided to use the indicator variable in interactions to preserve the sample size, because running the data separately for the pre- and post-standard periods would reduce the sample by almost half. The test of Hypothesis 1 is based on the statistical and economic significance of the interaction of EBITDA per

share and the IFRS 16 indicator variable (EBITDA*IFRS 16).

For the comparison between the relevance of Net Income and EBITDA and for the test of Hypothesis 2, the significance of the variables and the adjusted R² of the restricted models (2) and (3) were analyzed. Thus, for Hypothesis 2 not to be rejected, the adjusted R² of equation 3 had to be greater than that of equation 2.

$$P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 LL_{i,t} + \beta_3 PL * IFRS16_{i,t} + \beta_4 LL * IFRS16_{i,t} + \epsilon_i \quad (2)$$

$$P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 EBITDA_{i,t} + \beta_3 \beta_4 PL * IFRS16_{i,t} + \beta_4 EBITDA * IFRS16_{i,t} + \epsilon_i \quad (3)$$

The inclusion of Net Income serves as a comparison

parameter, without a specific focus on the analysis of the impacts of IFRS 16 on it. The effect of the standard on Net Income is expected to be limited, since it mainly represents a change in accounting classification, with only possible temporary effects on depreciation and financial expenses.

4 Results

Considering the sample of 2,432 firm-year observations, 1,350 observations (55.51%) refer to the post-IFRS 16 period. Of the total observations, 1,344 are from Brazilian firms (55.26%), 628 (25.82%) from Chilean firms, and 460 (18.92%) from Mexican firms. The annual distribution by country can be seen in Table 1.

Table 1. Observations by Country and Year

	2015	2016	2017	2018	2019	2020	2021	2022	Total
Brazil	134	132	140	155	155	174	217	237	1.344
Chile	71	73	78	79	81	81	82	83	628
Mexico	51	54	56	59	57	61	61	61	460
Total	256	259	274	293	293	316	360	381	2.432

Given the predominance of the Brazilian market in the sample, all analyses were also conducted by country and reported, even if not presented in tables. This approach aims to ensure that the results do not exclusively reflect this market, guaranteeing a more balanced interpretation

of the effects of IFRS 16 in the three countries.

4.1 Descriptive Statistics

Table 2 demonstrates the descriptive statistics of the studied variables for the overall sample and by country.

Table 2. Descriptive Statistics (Full Sample and by Country)

	N	Mean	Median	Standard Deviation	Minimum	Maximum
Full Sample	2.432					
Price		0,47	0,69	1,60	-6,91	5,58
PL		3,83	1,45	14,34	0,00	297,03
LL		-0,23	0,10	6,40	-158,08	67,26
EBITDA		0,54	0,28	2,35	-41,86	25,99
Brazil	1.344					
Price		0,98	1,02	1,01	-3,32	5,58
PL		4,91	1,92	18,44	0,01	297,03
LL		-0,56	0,14	8,59	-158,08	67,26
EBITDA		0,57	0,38	3,04	-41,86	25,99
Chile	628					
Price		-0,66	-0,46	2,17	-6,91	4,11
PL		2,96	0,57	7,74	0,00	61,14
LL		0,17	0,04	0,45	-2,01	4,96
EBITDA		0,53	0,10	1,19	-0,35	11,47
Mexico	460					
Price		0,52	0,55	1,27	-6,91	3,36
PL		1,86	1,13	2,05	0,00	13,30
LL		0,18	0,09	0,29	-1,17	2,84
EBITDA		0,45	0,28	0,55	-0,12	4,21

P refers to the logarithm of the stock price, PL to Shareholders' Equity per share, LL to Net Income per share, and EBITDA to EBITDA per share. These values were calculated in dollars using the historical rate for standardization purposes.

Analyzing Table 2, a significant difference can be seen in the logarithm of prices, Net Income, and Shareholders' Equity from one country to another. On the other hand, EBITDA per share was similar in terms of average but different in terms of standard deviation, which indicates that, despite a general trend among them, there are differences in their levels of uncertainty.

It was observed that, as in previous studies (Collins et al., 1997; Lima et al., 2022; Ribeiro et al., 2019; Santos & Souza, 2023), the standard deviation of all variables is high, exceeding their means, which indicates a heterogeneity of the companies studied.

The Pearson correlation (not tabulated) indicated statistical significance at 1% for all variables (without interactions), with a maximum correlation of -0.48. Of note is the increase in the correlation between EBITDA and stock price after IFRS 16 (from 0.06 to 0.33) and the change in the correlation of Net Income, which went from negative (-0.15) to positive (0.08).

4.2 Results of Regression Models

To ensure the robustness of the results, we performed tests and corrections for the main assumptions of panel models. The logarithmic transformation of the dependent variable was applied to reduce potential problems with the normality of residuals, but based on the Central Limit Theorem, this was not considered a problem given the large sample. Still, the serial autocorrelation of residuals was controlled by adjusting the standard errors clustered by company. This same correction served to avoid heteroscedasticity issues, ensuring the consistency of the estimates even in the presence of non-constant variances. Multicollinearity was evaluated by the Variance Inflation Factor (VIF), whose values (below 5) indicated the absence of relevant problems.

Table 3 presents the results of the regressions of the model with the full period and interactions (Equation 1), and the results using equations (2) and (3) to verify whether EBITDA or Net Income is more relevant.

Table 3. Multiple Regression Applying Equations (1), (2), and (3)

$$(1) P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 LL_{i,t} + \beta_3 EBITDA_{i,t} + \beta_4 PL * IFRS16_{i,t} + \beta_5 LL * IFRS16_{i,t} + \beta_6 EBITDA * IFRS16_{i,t} + \epsilon_i$$

$$(2) P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 LL_{i,t} + \beta_3 PL * IFRS16_{i,t} + \beta_4 LL * IFRS16_{i,t} + \epsilon_i$$

$$(3) P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 EBITDA_{i,t} + \beta_3 PL * IFRS16_{i,t} + \beta_4 EBITDA * IFRS16_{i,t} + \epsilon_i$$

	(1)	(2)	(3)	(1)	(2)	(3)
PL	0,0108*** (0,001)	0,0115*** (0,002)	0,0123*** (0,001)	0,0309*** (0,006)	0,0305*** (0,006)	0,0309*** (0,005)
LL	-0,0049*** (0,002)	-0,0025 (0,003)		0,00002 (0,010)	0,0072 (0,008)	
EBITDA	0,0249** (0,013)		0,0213 (0,016)	0,0723** (0,029)		0,0728** (0,033)
PL*IFRS 16	0,0036 (0,010)	0,0055 (0,008)	0,0019 (0,009)	0,0573** (0,025)	0,0733*** (0,023)	0,0583** (0,025)
LL*IFRS 16	0,0266** (0,012)	0,0446** (0,021)		-0,0256 (0,019)	0,0419 (0,026)	
EBITDA*IFRS 16	0,0325 (0,040)		0,0497 (0,039)	0,2315** (0,1108)		0,2102* (0,114)
Constant	0,3813*** (0,040)	0,3873*** (0,040)	0,3765*** (0,041)	-0,0995 (0,313)	-0,0665 (0,324)	-0,0980 (0,313)
N	2.432	2.432	2.432	2.432	2.432	2.432
R ²	0,2117	0,2038	0,2083	0,2118	0,1757	0,2111
Fixed Effects:						
Year	Yes	Yes	Yes	Yes	Yes	Yes
Firm	Yes	Yes	Yes	No	No	No
Industry	No	No	No	Yes	Yes	Yes

*p<0.1, ** p<0.05, *** p<0.01

In Table 3, for the models with firm fixed effects, it is clear that the new standard had a positive impact on the relationship only for Net Income. This could mean that the standard had a positive impact on the relevance of Net Income but not on EBITDA. This indicates that the market was already assimilating firms' economic performance well, even with the accounting change, in line with Martins et al. (2013), which weakens the hypothesis that EBITDA would have gained (or lost) relevance after the adoption of the standard.

According to Francis et al. (2003), the industry that value EBITDA the most are: "Oil and Gas Equipment and Services," "Healthcare," and "Telecommunications." However, according to Lloyd (2016), the industries most affected by IFRS 16 would be "Airlines," "Retail," and "Travel and Tourism." This distinction suggests that the accounting standard impacted precisely the industries where EBITDA is not traditionally the main performance metric. Therefore, by controlling for firm fixed effects, specific characteristics are absorbed that may explain why the relevance of EBITDA did not change significantly.

In the models with industry fixed effects, the results were distinct. These differences from replacing firm fixed effects with industry fixed effects – which is generally used in the value relevance literature (see Barth et al., 2008; Chen et al., 2020; Erickson et al., 2024; Giner & Pardo, 2018; Habib, 2010; Ki et al., 2019; Lima et al., 2022) – indicate that there is heterogeneity within industries, meaning that firms in the same sector may have been affected in different ways, either by the volume of lease contracts or by their accounting policies. Since the industry fixed effect assumes homogeneity among firms in the same industry, important characteristics may not be adequately captured.

Finally, the results obtained point to a possible rejection of Hypotheses 1 and 2, at least when considering firms in general. IFRS 16 does not seem to have significantly impacted the relevance of EBITDA, and Net Income remained a relevant informational metric, especially after the standard's adoption.

In addition to the differences between industries, it is also possible that there are variations between countries, affecting the coefficients, significances, and R². To verify this, Equation (1) was estimated separately for Brazil, Chile, and Mexico, with fixed effects for year and firm. This analysis also aims to mitigate the impact of the larger number of Brazilian observations on the general results.

Table 4. Multiple Regression (Equation 1) by Country

	Brazil	Chile	Mexico
PL	0,0123*** (0,001)	0,0310 (0,030)	0,0583 (0,064)
LL	-0,005*** (0,002)	-0,6325 (0,440)	0,0377 (0,098)
EBITDA	0,0205* (0,012)	0,6323* (0,382)	0,4128* (0,221)
PL*IFRS 16	0,0064 (0,014)	0,0431* (0,026)	-0,0203 (0,045)
LL*IFRS 16	0,0280*** (0,009)	0,8328** (0,392)	0,4154* (0,231)
EBITDA*IFRS 16	0,0188 (0,031)	-0,5388* (0,291)	0,0056 (0,154)
Constant	0,6692*** (0,063)	-0,8844*** (0,205)	0,5740*** (0,115)
N	1.344	628	460
R ²	0,2368	0,4727	0,4746
Fixed Effects:			
Year	Yes	Yes	Yes
Firm	Yes	Yes	Yes

* p<0.1, ** p<0.05, *** p<0.01

The results show that EBITDA has statistical relevance in all countries, even though at different levels. This was expected, both from the evidence of incremental value to net income in previous studies (Francis et al., 2003; Habib, 2010) and from the strong presence of the retail industry – one of the most affected by IFRS 16 – in all countries in the sample (Deloitte, 2014).

Although little effect of IFRS 16 on net income was expected, the LL*IFRS16 interactions were significant in all three countries. This can be attributed to the lower quality of accounting information in these jurisdictions (Isidro et al., 2020; Leuz, 2010), which leads the market to react positively to a new standard, increasing confidence in the information.

In the case of Chile, the lack of relevance of the accounting variables and the reduction in the relevance of EBITDA after IFRS 16 may be linked to cultural factors, such as a low level of interpersonal trust and less collectivism (Isidro et al., 2020; Minkov & Kaasa, 2022), which reduces the use of accounting information by investors. This is in line with the findings of Gray and Vint (1995) and Batistella et al. (2021), where in more individualistic societies, there is greater distrust of the capital market.

Finally, the results confirm that the weight of Brazilian firms influenced the joint estimates – this is also verified

when running the analysis by country of equations (2) and (3) separately, not tabulated – but the general conclusions are maintained. However, the interaction variable with EBITDA did not show significance in Brazil and Mexico, reinforcing the previous results that indicate that firms in these countries, in general, were not impacted by the

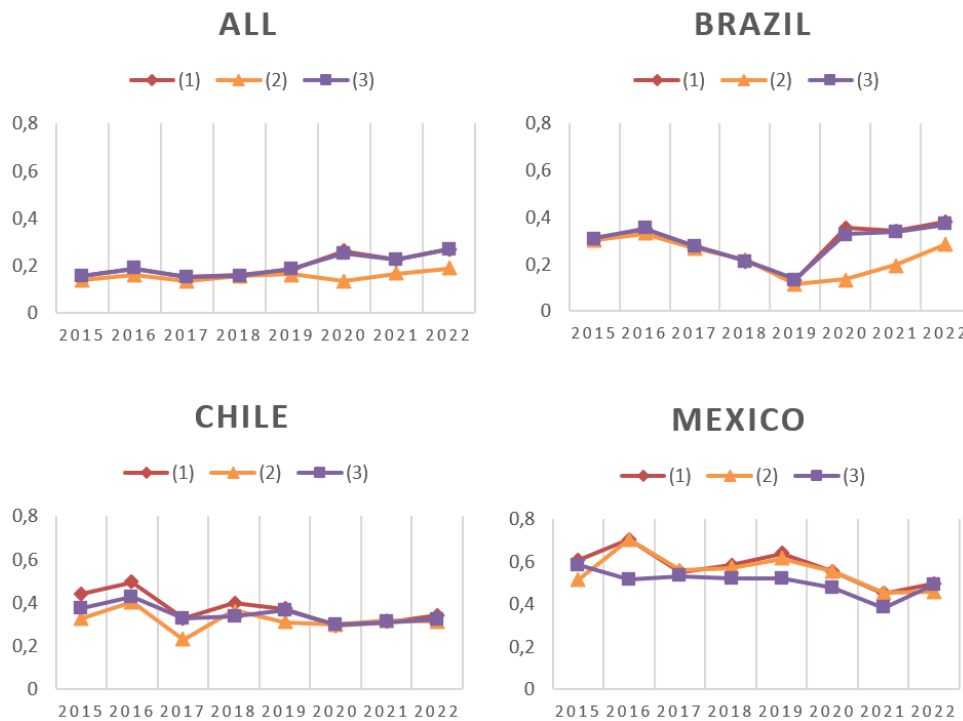
standard. To complement the analysis by country, the sample was used by country and by year, referring to equations (1), (2), and (3), without interactions. The adjusted R² values are presented in Figure 1.

Figure 1. Adjusted R² of Equations (1), (2), and (3), without Interactions

$$(1) P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 LL_{i,t} + \beta_3 EBITDA_{i,t} + \beta_4 PL * IFRS16_{i,t} + \beta_5 LL * IFRS16_{i,t} + \beta_6 EBITDA * IFRS16_{i,t} + \epsilon_i$$

$$(2) P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 LL_{i,t} + \beta_3 PL * IFRS16_{i,t} + \beta_4 LL * IFRS16_{i,t} + \epsilon_i$$

$$(3) P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 EBITDA_{i,t} + \beta_3 PL * IFRS16_{i,t} + \beta_4 EBITDA * IFRS16_{i,t} + \epsilon_i$$



In Brazil and Chile, EBITDA was more relevant for most of the analyzed period. However, in Brazil, the relevance of EBITDA was only clearly superior to that of net income from 2020 onwards. This, however, was not seen in Mexico. The differences between the countries may be related to the justification proposed by Ki et al. (2019), according to which different levels of demand for information can lead to differences in the relevance of financial indicators. Similarly, it can be understood that differences in the regulatory environments and enforcement mechanisms of each country may have led to conflicting results.

In 2019, the year of IFRS 16's application, a drop in the explanatory power of all models was observed in Brazil. Given that this happened one year after the adoption of IFRS 9 and 15 and also before the Covid-19 pandemic,

it is not possible to state that the changes in explanatory power were caused by these events; it is plausible that the impact stems from IFRS 16. After 2019, however, the explanatory power of the Brazilian sample returned to levels prior to the application of the new standard, suggesting that the market absorbed its effects. For Chile and Mexico, no significant changes were observed. The recovery of the R² in Brazil, combined with the downward trend since 2017 and stability in the other countries, helps explain the lack of significance of EBITDA*IFRS16 in the regressions presented in Tables 3 and 4.

4.2.1 Additional Analyses: Trend Analysis

To test for the existence of a trend, as in Collins et al. (1997) and Barth et al. (2023), Equation (4) was estimated.

$$R^2_t = \alpha_0 + \beta_1 \text{Period}_t + \epsilon_t \tag{4}$$

where R^2_t is the adjusted coefficient of determination for each year t and $\text{Period} = 1, \dots, 8$, corresponding to the years from 2015 to 2022, obtained from the estimation of equations 1-3, without interactions. This test verifies whether there was a change in the explanatory power of the variables over time and, if so, why the relationship might have changed. Since the new standard is expected to have increased the relevance of the information, it is expected that the β_1 of equation (4) will be significant and positive.

For the total sample, the test showed:

- Equation (1): $\beta = 0,016$, $p = 0,012$ (significant at 1%);
- Equation (2): $\beta = 0,005$, $p = 0,105$ (not significant);
- Equation (3): $\beta = 0,015$, $p = 0,011$ (significant at 1%).

These results suggest a general trend of increasing explanatory power, especially for EBITDA.

When applying the same test by country, using the R^2 from Equation (2) (net income), unlike previous research (e.g., Barth et al., 2023; Collins et al., 1997), no statistically significant downward trends in the relevance of net income were observed in any of the countries, although the β_1 coefficients were negative in all cases.

When testing the adjusted R^2 from Equation (3), without interactions, the results varied between countries. In Brazil, although the β_1 coefficient was positive, it was not significant (p -value 0.713). On the other hand, Chile and Mexico showed downward trends in the relevance of

EBITDA with β_1 of -0.012 and -0.017 and p -values of 0.051 and 0.035, respectively.

The data suggest that, although there is no lasting upward trend in relevance in Brazil, the drop observed in 2019 may have been temporary, with subsequent recovery. On the other hand, Chile and Mexico showed downward trends in the relevance of EBITDA even before IFRS 16. Restricting the period to 2016-2019, when a drop is observed in Figure 1 for Brazil, a significant reduction trend was found in all three models (p -values of 0.001, 0.015, and 0.001), indicating a possible impact of the standard in this specific interval.

4.2.2 Additional Analyses: Hierarchical Fixed Effects Model

It is understood that the fixed effects model, by eliminating variations between firms and countries, made it difficult to study different applications of IFRS 16, since different countries have structural differences – such as degrees of development and enforcement, for example – and accounting differences that can generate different lease structures and applications of IFRS 16. At the same time, some specific industries have more operating leases and would therefore be more affected by the standard.

The results for Brazil (Table 4) are similar to those of the general sample (Table 3), suggesting a possible influence of Brazilian firms on the aggregated results. Given the observed differences between countries and firms, a hierarchical fixed effects model was estimated with three specifications: considering firms, countries, and both as levels. The results are in Table 5.

Table 5. Multilevel Hierarchical Fixed Effects Model

(1) $P_{i,t} = \alpha_0 + \beta_1 PL_{i,t} + \beta_2 LL_{i,t} + \beta_3 EBITDA_{i,t} + \beta_4 PL * IFRS16_{i,t} + \beta_5 LL * IFRS16_{i,t} + \beta_6 EBITDA * IFRS16_{i,t} + \epsilon_i$			
Dependent Variable: Logarithm of Price			
PL	0,0122*** (0,001)	0,0285*** (0,002)	0,0121*** (0,001)
LL	-0,0046** (0,002)	0,0041 (0,005)	-0,0048** (0,002)
EBITDA	0,0269*** (0,007)	0,0680*** (0,013)	0,0264*** (0,007)
PL*IFRS 16	0,0086** (0,004)	0,0642*** (0,007)	0,0078** (0,004)
LL*IFRS 16	0,0215** (0,010)	-0,0281 (0,017)	0,0232** (0,010)
EBITDA*IFRS 16	0,0404*** (0,014)	0,2317*** (0,032)	0,0381*** (0,014)
Constant	0,1205 (0,486)	0,0997 (0,492)	0,3874*** (0,078)
N	2.432	2.432	2.432
Levels	Country and Firm	Country	Firm
Fixed Effects – Year	Yes	Yes	Yes

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results indicate that the relevance of EBITDA varies depending on the country and firm, reflecting specific characteristics, such as the industry of activity. Industries such as retail, transport, and aviation, which tend to have a higher volume of leases, were pointed out by EFRAG (2017) as being more impacted by IFRS 16. Although few in the sample, these industries have great economic weight, especially in Chile and Mexico (Deloitte, 2014), which may explain the effects captured. Giner and Pardo's (2018) findings, which identified a relevant industrial effect in retail, also reinforce this interpretation.

The inclusion of effects by country showed variations in the relevance of accounting variables between jurisdictions. Net income, on the other hand, was only significant when firm effects were considered, suggesting that its impact with IFRS 16 depends on idiosyncratic characteristics of each firm. This is in line with what Habib (2010) discussed, who understands that investors will use information depending on the particularity of each firm, given that performance measures have different levels of persistence (Ribeiro et al., 2019). At the country level, there were no relevant variations in net income, aligning with Xu et al. (2017).

Although the replacement of lease expense with depreciation and financial charges should be neutral in the long term, the results show measurable effects on net income. This may be related to the structure of the contracts, usually with greater financial expense at the beginning, as in the Price system. Given the short horizon of the sample, this transition effect may have been captured in the data.

5 Final Remarks

This research aimed to evaluate how the changes in operating lease accounting brought by IFRS 16 affected the value relevance of EBITDA in Latin American firms. In general, the results indicate that the adoption of IFRS 16 did not significantly increase the relevance of EBITDA, leading to the rejection of Hypothesis 1. This suggests that its effects were more related to the form of presentation than to economic substance. EBITDA maintained its informational function even after the regulatory change, possibly because it was already widely used by investors as an operational performance indicator.

However, it was observed that Net Income became more significant after the adoption of the standard, suggesting that investors began considering other metrics to capture the impacts of the new accounting. This indicates there is no evidence to support the claim that EBITDA became more relevant than Net Income, leading to the rejection of Hypothesis 2.

Additionally, when considering hierarchical structures with firm and country effects, an increase in the relevance of EBITDA was observed. This reveals heterogeneity in the standard's application across different institutional contexts and economic industries – the very opposite of the harmonization sought by IFRS 16.

These findings reinforce the importance of considering specific characteristics of firms and countries when analyzing the usefulness of accounting information. Industries with a higher volume of operating leases, such as retail and transportation, tend to be more affected, requiring attention to how EBITDA is calculated and disclosed.

The research also shows that the effects of a new accounting standard may be more intense in the first years of adoption, not necessarily reflecting long-lasting impacts. Therefore, future studies are recommended to consider longer periods to avoid premature conclusions. In this study, although other events, such as the Covid-19 pandemic and IFRS 9 and 15, also occurred during the period, the controls by year indicate that the observed effects are more associated with IFRS 16.

It is noted that this research is limited to publicly traded firms due to the method of relevance analysis. The impact of IFRS 16 may have been different in unlisted firms. Furthermore, during the analyzed period, other standards were also adopted, and the Covid-19 pandemic occurred. Efforts were made to control for the effects of these other events.

The research results are useful for investors, as they reinforce the need to consider the industry and country analyzed when new accounting standards are issued. For regulators, the data helps monitor the implementation of IFRS 16, seeking greater uniformity across jurisdictions. Firms with many lease contracts should pay attention to the calculation of EBITDA, which maintained its relevance. Firms in general should remain attentive to EBITDA when new standards that affect its calculation are issued. The research also encourages long-term studies to diagnose the impact of new standards and the comparability of information.

References

- Ball, R., & Brown, P. (1968). An empirical evaluation of accounting income numbers. *Journal of accounting research*, 6(2), 159-178. doi:<https://doi.org/10.2307/2490232>
- Barth, M. E., Li, K., & McClure, C. (2023). Evolution in value relevance of accounting information. Stanford University Graduate School of Business Research Paper, 98(1), 17-24. doi:[10.2308/TAR-2019-0521](https://doi.org/10.2308/TAR-2019-0521)

- Barth, M., & Clinch, G. (2009). Scale Effects in Capital Markets-Based Accounting Research. *Journal of Business Finance & Accounting*, 36(3-4), pp. 253-288. doi:<https://doi.org/10.1111/j.1468-5957.2009.02133.x>
- Barth, M., Landsman, W., & Lang, M. (2008). International Accounting Standards and Accounting Quality. *Journal of Accounting Research*, 46(3), pp. 467-498. doi:10.1111/j.1475-679X.2008.00287.x
- Barton, J., Hansen, T. B., & Pownall, G. (2010). Which performance measures do investors around the world value the most—And why? *The Accounting Review*, pp. 753-789. doi:<https://doi.org/10.2308/accr.2010.85.3.753>
- Batistella, A., Magro, C., Mazzioni, S., & Paulo, E. (2021). Relevância da informação contábil e cultura nacional. *Revista de Contabilidade e Organizações*, 15. doi:<http://dx.doi.org/10.11606/>
- Black, D., Christensen, T., Ciesielski, J., & Whipple, B. (2018). Non-GAAP reporting: Evidence from academia and current practice. *Journal of Business Finance & Accounting*, 45(3-4), pp. 259-294. doi:10.1111/jbfa.12298
- Bonilla, C. (2022). La relevancia valorativa de la información financiera en Colombia. Un estudio empírico. *Cuadernos de Contabilidad*, 23, pp. 1-20. doi:<https://doi.org/10.11144/Javeriana.cc23.rvif>
- Bradshaw, M. T., & Sloan, R. G. (2002). GAAP versus the street: An empirical assessment of two alternative definitions of earnings. *Journal of Accounting Research*, 40(1), 41-66. doi:<https://doi.org/10.1111/1475-679X.00038>
- Cardoso, V., & Britto, P. (2023). Análise setorial do impacto da IFRS 16 e covid-19 nos indicadores das arrendatárias brasileiras. *Revista Contabilidade & Finanças*, 34(93). doi:10.1590/1808-057x20231673.pt
- Chen, B., Kurt, A., & Wang, I. (2020). Accounting comparability and the value relevance of earnings and book value. *The Journal of Corporate Accounting & Finance*, 31, pp. 82-98. doi:10.1002/jcaf.22459
- Collins, D., Maydew, E., & Weiss, I. (1997). Changes in the value-relevance of earnings and book values over the past forty years. *Journal of Accounting and Economics*, 24, pp. 39-67. doi:[https://doi.org/10.1016/S0165-4101\(97\)00015-3](https://doi.org/10.1016/S0165-4101(97)00015-3)
- Comitê de Pronunciamentos Contábeis (CPC). (2017). CPC 06 (R2) - Arrendamentos. Retrieved from <https://www.cpc.org.br/CPC/Documentos-Emitidos/Pronunciamentos/Pronunciamento?Id=37>
- Deloitte. (2014). Latin America Rising: How Latin American Companies Become Global Leaders. Deloitte Consulting LLP.
- Dunham, L., & Grandstaff, J. (2022). The Value Relevance of Earnings, Book Values, and Other Accounting Information and the Role of Economic Conditions in Value Relevance: A Literature Review. *Accounting Perspectives*, 21(2), pp. 237-272. doi:10.1111/1911-3838.12280
- Erickson, D., Lindsey, B., & Talakai, J. (2024). The Valuation Differences between Operating and Finance Lease Liabilities in US Firms. *ABACUS*, pp. 1-31. doi:10.1111/abac.12333
- European Financial Reporting Advisory Group (EFRAG). (2017). Ex ante impact Assessment of IFRS 16.
- Fama, E. F. (1971). Information and capital markets. *Journal of business*, 289-298. doi:10.1086/295379
- Ficco, C., Bersía, P., Aizpeolea, J., & Reanudo, J. (2014). Relevancia valorativa del patrimonio neto y del resultado contable en el mercado de capitales argentino. *Revista Visión Contable*, 12, pp. 246-274. doi:10.24142/rvc.n12a9
- Francis, J., Schipper, K., & Vincent, L. (2003). The relative and incremental explanatory power of earnings and alternative (to earnings) performance measures for returns. *Contemporary Accounting Research*, pp. 121-164. doi:<https://doi.org/10.1506/XVQV-NQ4A-08EX-FC8A>
- Giner, B., & Pardo, F. (2018). The Value Relevance of Operating Lease Liabilities: Economic Effects of IFRS 16. *Australian Accounting Review*, 28(4), pp. 496-511. doi:10.1111/auar.12233
- Gray, S., & Vint, H. (1995). The Impact of Culture on Accounting Disclosures: Some International Evidence. *Asia-Pacific Journal of Accounting*, 2(1), pp. 33-43. doi:<http://dx.doi.org/10.1080/10293574.1995.10510476>
- Habib, A. (2010). Value relevance of alternative accounting performance measures: Australian evidence. *Accounting Research Journal*, pp. 190-212. doi:10.1108/10309611011073269
- IFRS Foundation. (2024a, Abril). Effects Analysis - IFRS Accounting Standards. Retrieved from IFRS 18 Presentation and Disclosure in Financial Statements: <https://www.ifrs.org/content/dam/ifrs/publications/amendments/english/2024/effect-analysis-ifrs18-april2024.pdf>
- IFRS Foundation. (2024b). Use of IFRS Accounting Standards by jurisdiction. Retrieved Setembro 25, 2024, from <https://www.ifrs.org/use-around-the-world/use-of-ifrs-standards-by-jurisdiction/>

- International Financial Accounting Standards (IASB). (2003). IAS 17 - Leases. Retrieved from <https://www.ifrs.org/content/dam/ifrs/publications/pdf-standards/portuguese-brazilian/2015/issued/part-a/ias-17-leases-pt.pdf?bypass=on>
- International Financial Accounting Standards (IASB). (2013). Basis for Conclusions on Exposure Draft Leases. Retrieved from <https://www.ifrs.org/content/dam/ifrs/project/leases/revised-ed/published-documents/ed-leases-basis-for-conclusions-may-2013.pdf>
- International Financial Accounting Standards (IASB). (2014). IFRS 15 - Receita de Contratos com Clientes. Retrieved from <https://www.ifrs.org/issued-standards/list-of-standards/ifrs-15-revenue-from-contracts-with-customers/>
- International Financial Accounting Standards (IASB). (2014). IFRS 9 - Instrumentos Financeiros. Retrieved from <https://www.ifrs.org/issued-standards/list-of-standards/ifrs-9-financial-instruments/>
- International Financial Accounting Standards (IASB). (2016). IFRS 16 - Leases. Retrieved from <https://www.ifrs.org/issued-standards/list-of-standards/ifrs-16-leases.html/content/dam/ifrs/publications/html-standards/english/2022/issued/ifrs16/#standard>
- Isidro, H., Nanda, D., & Wysocki, P. (2020). On the Relation between Financial Reporting Quality and Country Attributes: Research Challenges and Opportunities. *The Accounting Review*, 95(3), pp. 279-314. doi:<https://doi.org/10.2308/accr-52607>
- Jan, C., & Ou, J. A. (2012). Negative-Book-Value Firms and Their Valuation. *Accounting Horizons*, 26(1), pp. 91-110. doi:[10.2308/acch-50094](https://doi.org/10.2308/acch-50094)
- Ki, D., Leem, W., & Yuk, J. (2019). The effect of IFRS adoption on the value relevance of accounting information: evidence from South Korea. *Investment Management and Financial Innovations*, 16(2), pp. 78-88. doi:[https://dx.doi.org/10.21511/imfi.16\(2\).2019.07](https://dx.doi.org/10.21511/imfi.16(2).2019.07)
- KPMG. (2016). Um estudo sobre as políticas contábeis críticas, medições não contábeis e as modificações no relatório do auditor independente.
- Leuz, C. (2010). Different Approaches to Corporate Reporting Regulation: How Jurisdictions Differ and Why. *Accounting and Business Research*, 40(3), pp. 229-256. doi:<https://doi.org/10.1080/00014788.2010.9663398>
- Lev, B. (2018). The deteriorating usefulness of financial report information and how to reverse it. *Accounting and Business Research*, 48(5), 465-493. doi:<https://doi.org/10.1080/00014788.2018.1470138>
- Lima, R. F., Costa, L. R., & Rodrigues, J. M. (2022). Value relevance do novo resultado operacional: avaliação do exposure draft 2019/07. *Revista Ambiente Contábil*, 14(2), pp. 190-207. doi:[10.21680/2176-9036.2022v14n2ID27315](https://doi.org/10.21680/2176-9036.2022v14n2ID27315)
- Lloyd, S. (2016). Investor Perspectives - A New Lease of Life. International Accounting Standards Board (IASB).
- Macedo, M. A., Machado, M. R., Murcia, F. D., & Machado, M. A. (2012). Análise da relevância do EBITDA versus fluxo de caixa operacional no mercado brasileiro de capitais. *Advances in Scientific and Applied Accounting*, 5(1), pp. 99-130. doi:[10.14392/ASAA/2012050105](https://doi.org/10.14392/ASAA/2012050105)
- Magli, F., Nobolo, A., & Ogliari, M. (2018). The Effects on Financial Leverage and Performance: The IFRS 16. *International Business Research*, 11(8), pp. 76-89. doi:[10.5539/ibr.v11n8p76](https://doi.org/10.5539/ibr.v11n8p76)
- Marques, M., Dalmacio, F., & Rezende, A. (2022). IFRS X Bacen Gaap: Value Relevance das Informações Contábeis das Instituições Financeiras do Brasil. *Brazilian Business Review*, 19(1), pp. 1-18. doi:<http://dx.doi.org/10.15728/bbr.2022.19.1.1>
- Martínez, P., Prior, P., & Rialp, J. (2012). The price of stocks in Latin American financial markets: an empirical application of the Ohlson model. *International Journal of Business and Finance Research*, 6(4), pp. 73-85.
- Martins, V. G., Machado, M. A., & Machado, M. R. (2013). Value Relevance das informações de Leasing Operacional: um estudo em empresas brasileiras. *Enfoque: Reflexão Contábil*, pp. 83-99. doi:<https://doi.org/10.4025/enfoque.v32i2.19762>
- McVay, S. E. (2006). Earnings Management Using Classification Shifting: An Examination of Core Earnings and Special Items. *The Accounting Review*, 81(3), pp. 501-531. doi:<https://doi.org/10.2308/accr.2006.81.3.501>
- Messias, A., Gonzales, A., Belli, J., & Ribeiro, A. (2022). Análise do Impacto da Adoção do IFRS 16 (CPC 06 (R2)) nas Empresas de Capital Aberto do Segmento Novo Mercado. *Pensar Contábil*, 25(85), pp. 4-15. Retrieved from <http://www.atena.org.br/revista/ojs-2.2.3-06/index.php/pensarcontabil/article/viewFile/3971/2808>
- Minkov, M., & Kaasa, A. (2022). Do dimensions of culture exist objectively? A validation of the revised Minkov-Hofstede model of culture with World Values Survey items and scores

- for 102 countries. *Journal of International Management*, 28(4). doi:<https://doi.org/10.1016/j.intman.2022.100971>
- Nobes, C., & Parker, R. (2008). *Comparative international accounting* (10^a ed.). Harlow: Pearson Education.
- Oliveira, G., Wolf, P., Angelico, D., & Laplane, E. (2021). Blindagem externa, controles de capital e inserção diferenciada da Ásia e da América Latina na globalização Financeira (1995-2016). *Revista de Economia Contemporânea*, 25(2), pp. 1-36. doi:<http://dx.doi.org/10.1590/198055272527>
- Paes, N. L. (2013). Uma análise comparada do sistema tributário brasileiro em relação à América Latina. *Acta Scientiarum. Human and Social Sciences*, 35(1), pp. 85-95. doi:[10.4025/actascihumansoc.v35i1.19734](https://doi.org/10.4025/actascihumansoc.v35i1.19734)
- Ribeiro, A., Shan, Y., & Taylor, S. (2019). Non-GAAP Earnings and the Earnings Quality Trade-off. *ABACUS*, 55(1), pp. 6-41. doi:[10.1111/abac.12150](https://doi.org/10.1111/abac.12150)
- Rocha, B. D., Monte-mor, D. S., & Stefanelli, N. O. (2021). Capitalização do Leasing Operacional: uma Análise Crítica sobre o Value Relevance nas. *USP International Conference in Accounting*. São Paulo: FIECAFI.
- Salotti, B.M. (2024). IFRS 18 – A Nova Norma de Apresentação das Demonstrações Financeiras: principais mudanças, implicações práticas e oportunidades de pesquisa. *Revista de Educação e Pesquisa em Contabilidade*, 18(3), pp. 427-436. doi: <http://dx.doi.org/10.17524/repec.v18i3.3583>
- Santana, V., Black, E., & Lima, G. (2022). Post-Earnings Announcement Drift (PEAD) na América Latina. *Revista Brasileira de Gestão de Negócios*, 24(3), pp. 472-496. doi:<https://doi.org/10.7819/rbgn.v24i3.4193>
- Santos, H., & Souza, P. (2023). Efeitos da Fraude Corporativa no Value Relevance de Companhias Abertas Brasileiras. *Advances in Scientific and Applied Accounting*, 16(2), pp. 51-62. doi:[10.14392/asaa.2023160202](https://doi.org/10.14392/asaa.2023160202)
- Utami, E., Sumiyana, S., Mustakini, J., & Barokah, Z. (2024). The IFRS 16 implementation in Asia-Pacific countries: enhancing asset pronouncements or opaque information's conveyance. *Accounting Research Journal*, 37(1), pp. 19-38. doi:[10.1108/ARJ-04-2023-0115](https://doi.org/10.1108/ARJ-04-2023-0115)
- World Bank. (2024). GDP. Retrieved from Site do World Bank: <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>
- Xu, W., Davidson, R. A., & Cheong, C. S. (2017). Converting financial statements: operating to capitalised leases. *Pacific accounting review*, pp. 34-54. doi:<https://doi.org/10.1108/PAR-01-2016-0003>