# MANAGEMENT SKILLS AND THE QUALITY OF ACCOUNTING INFORMATION IN BRAZIL

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## ABSTRACT

This study aims to analyze managerial skills in the practice of earnings management via earnings smoothing and accruals in B3 companies. To this end, a quantitative and descriptive study was conducted using data from the Económática database, with a sample of 966 observations from 2010 to 2020. Demerjian et al.'s (2012) model was used to measure managerial skill. Its efficiency parameters are the manager's characteristics in using resources to generate revenue. The models by Leuz et al. (2003) and McNichols (2002) were used to measure smoothing and levels of earnings management. The results showed that, on average, more skillful managers tend to smooth and manage earnings at higher levels than less skilled managers, indicating that in Brazil, on average, more skillful managers reduce the quality of Brazilian firms' earnings. This paper contributes to the literature and fills a gap regarding managerial skills and the impact on the results of Brazilian companies. It shows that, in Brazil, managerial skill is associated with smoothing and earnings management practices and sheds light on interested parties regarding the influence of the profile of managers and their ability to influence the numbers released in the Brazilian market.

**Keywords:** Earnings smoothing. Earnings management. Managerial skill. Data envelopment analysis. Accruals.

## 1 INTRODUCTION

Measuring managerial skill is a central theme of several studies, as they analyze whether managerial decisions reflect on business performance and investments, on managers' compensation, on corporate governance, and also if it exerts economic effects of corporate ownership and on the difference in productivity between countries (Demerjian et al., 2012). Previous studies, such as those by Baik et al. (2020) and Demerjian et al. (2013), determine that managers' specific resources, such as talent, intellectual capacity, reputation, or style, affect economic results and, therefore, are relevant to finance, accounting, and managerial research.

To this end, studies suggest that managerial skill can impact the quality levels of the information disclosed (Demerjian et al., 2013). Thus, the relationship between managerial capacity and earnings quality predicts that managers who are more knowledgeable about their businesses make better judgments and estimates, allowing them to produce better quality gains.

Bertrand and Schoar (2003) state that managers influence the choices of companies, such as acquisitions or spending on research and development. In another aspect, Aier et al. (2005) report that companies whose Chief Financial Officers (CFOs) have more accounting knowledge have fewer financial statements. Francis et al. (2008) suggest that the earnings quality varies inversely to the reputation of the *Chief Executive Officer (*CEO).

In this context, Demerjian et al. (2013) analyzed the relationship between managerial skill and the earnings quality of American companies from 1989 to 2009. They found that managerial skill is positively associated with earnings quality. In the same vein, Demerjian et al. (2020) also conducted a study with US companies, and their results showed that more skilled managers were more likely to smooth earnings intentionally. In another aspect, Baik et al. (2020) showed that high-capacity managers provide American analysts with more accurate forecasts of future earnings and implement their strategies more effectively than managers with lower capacity.

Still in the national scenario, Santos (2020) observed that managerial skill can mitigate the relationship between earnings management and executive compensation. The studies by Eigenstuhler et al. (2023) demonstrated that managerial skill influences companies' accounting and tax compliance levels. More skilled managers are associated with earnings management, which reduces the quality of accounting information (Lunardi et al., 2022).

Therefore, it is clear that most research on managerial skills was conducted in North American and European companies, which reinforces the need to evaluate this relationship in the national context, given that the Brazilian context is different from these countries. When considering the more fragile level of monitoring and the less mature market, it is possible to indicate a more significant reason for this relationship to happen (Carvalho & Pennacchi, 2012).

In this sense, the following research problem arises: what is the relationship between managerial skill, management levels, and earnings smoothing in Brazilian companies? Thus, this study aimed to evaluate the relationship between the level of managerial skill of managers, the level of management, and the earnings smoothing as proxies for the quality of accounting information in the national scenario.

To this end, this study analyzed 966 observations of a mean of 320 companies listed on B3 from 2010 to 2020. To measure managerial efficiency, the model of Demerjian et al. (2013) was used; management was measured by accruals; and to measure earnings smoothing, the models of Dechow and Dichev (2002), Dou et al. (2013), Leuz et al. 2003), and Tucker and Zarowin (2006) were used, respectively.

The results indicate a significant relationship between managerial skill, smoothing, and earnings management. These findings suggest that high-capacity managers tend to make accounting choices that smooth earnings more, in addition to choosing, on average, for higher levels of earnings management, compared to companies with lower-skill managers.

This work contributes to the literature and fills a gap in managerial skills and the impact of the results of Brazilian companies. It shows that, in Brazil, managerial skill is associated with

earnings smoothing practices and management. It sheds light on stakeholders regarding the influence of the profile of managers and their ability to influence the numbers disclosed in the Brazilian market.

## 2 THEORETICAL BACKGROUND

### 2.1 Earnings Smoothing

According to Beidleman (1975), smoothing is defined as using managerial discretion to dampen fluctuations in earnings flows. It can provide several positive points to companies, such as improving the quality of information for internal and external users, which brings reported earnings closer to permanent earnings (Demerjian et al., 2020).

Therefore, smoothing allows managers to communicate the actual economic performance of a company and helps investors and analysts predict future earnings (Subramanyam, 1996; Tucker & Zarowin, 2006). On the other hand, smoothing can be costly: smoothing decisions can start an inclination toward poor financial communication (Schrand & Zechman, 2012). Effective smoothing requires managers to identify specific techniques to achieve the desired adjustments. Thus, managers may need to make costly adjustments to their accounting process, which can negatively affect the company's value (Baik et al., 2020).

According to Ronen et al. (2007), there are two types of intentional smoothing: real and artificial. Trueman and Titman (1988) point out that regardless of the nature of smoothing, the models indicate that the decrease in earnings smoothing is favorable for companies, as it reduces the cost of capital, even if the small oscillation in earnings reduces systematic risk due to the drop in covariance between company returns and market returns.

Scott (2015) states that companies can smooth out reported net earnings for external reporting purposes. If used responsibly, smoothing can transmit inside information to the market, enabling credible company communication and highlighting its persistent earnings power. To this end, earnings management, through smoothing, aims to produce constant earnings growth flows. For this to happen, companies must have positive earnings that allow the creation of provisions to regulate the flow, if necessary (Stolowy & Breton, 2010).

For Schipper & Vincent (2003), smoothing is a great debate, as it probably varies transversally with managerial skill. Thus, for earnings to be smoothed, managers must accurately predict earnings, which requires a keen understanding of the company's economic prospects (Baik et al., 2020). This knowledge is the basis of support for the disclosure of earnings reported by highly skilled managers (Aier et al., 2005).

### 2.2 Management Skill and Earnings Smoothing

Research has identified the role of managerial skills in improving the quality of their companies' reports. Conceptually, managers with greater capacity have a better understanding of their companies' businesses (Demerjian et al., 2012) and use this knowledge to inform investors more effectively about the company's financial situation (Baik et al., 2013; Baik et al., 2011).

High-capacity managers are expected to be better able to make these projections and plan the reports (Demerjian et al., 2020). The logic is similar to that of Demerjian et al. (2013), who claim that high-capacity managers make superior estimates and judgments. These superior skills are reflected in high-quality earnings. In this sense, Trueman (1986) and Baik et al. (2011) state that managers are better able to predict earnings and, therefore, should be able to identify the appropriate way to smooth.

Smoothing earnings for recurring or permanent earnings is a complex task, so managers must first be able to predict the company's future earnings and then determine how to adjust reported earnings toward the forecast (Demerjian et al., 2020). DeFond and Park (1997) indicate

that such a process requires managers to increase or decrease current income to achieve smoothness in the current period and accumulate slack to report smoothly in the future.

For Demerjian et al. (2020), intentional smoothing reflects managers' objectives of reporting the smoothed earnings desired by stakeholders. Hence, high-capacity managers are expected to be better able to use smoothing to achieve desired characteristics than lower-capacity managers, whose forecasting skills and implementation insight are weaker. In this sense, the following hypothesis arises to be tested:

Hypothesis 1 (H1): Companies whose managers have greater managerial capacity tend to smooth their earnings more.

### 2.3 Management Skill and Earnings Management

According to Cohen and Zarowin (2010) and Roychowdhury (2006), earnings management practices are negatively related to managers' skills to efficiently transform company resources into sales because, for a given set of resources that companies have, managers with greater skills can generate more revenues and, therefore, are less likely to be pressured to manage earnings.

Managers with greater skill and capacity tend to understand the negative impact of earnings management on the company's future performance and, therefore, tend to have more restrictions in managing. Consequently, managers with limited time and effort prefer to direct operations correctly and efficiently rather than practice earnings management (Huang & Sun, 2017). For Demerjian et al. (2012), there is a negative relationship between earnings management and managerial skills, in which managers experience pressures to achieve a certain goal.

Therefore, this research uses earnings management as a proxy for earnings quality, given that, according to Ge and Kim (2014), managed earnings should not be used as a reliable metric of company earnings for capital holders who have the purpose of measuring the company's future profitability. Therefore, earnings management reduces the earnings quality with regard to quality in the predictability of company performance by capital providers (Francis et al., 2005).

Dechow et al. (2010) indicate that more informative and better quality earnings bring information related to the characteristics of a company's financial performance that are essential in the decision-making process. Thus, the earnings quality is related to the share of earnings attributable to the company's financial performance rather than artificial earnings created by the flexibility of accounting standards, such as the amount of depreciation and provisions, which could also be seen as earnings informative (Dechow et al., 2010).

In the Brazilian environment, where external monitoring power is limited, controlling shareholders and creditors can be expected to be the main agents in assessing managerial performance (Júnior & Saito, 2004). For Martins and Ventura Júnior (2020), the impacts of earnings manipulation may be greater in environments without investor controls or monitoring. In this context, managers with greater managerial skills may be more opportunistic in this type of environment, taking advantage of their abilities to manage earnings, regardless of the purpose. In this context, the second hypothesis to be tested in this study arises:

Hypothesis 2 (H2): Management capacity is negatively associated with earnings management.

## 3 METHODOLOGY

### 3.1 Sample Selection and Data Processing

This quantitative and descriptive research covers publicly traded companies listed on the Bolsa Balcão Brasil (B3). The sample included companies listed on the stock exchange of the state of São Paulo, except for those in the financial industry, as they have specificities in their financial statements, such as the difficulty of estimating the cash flow of financial services companies and

the regulatory issue of the industry (Brugni et al., 2015). The information was extracted from Economática®, and the period analyzed was from 2010 to 2020, as 2010 was the initial period of IFRS implementation in Brazil, to facilitate the comparability of the information in the sample.

Initially, 4,401 observations were collected, of which companies in the financial industry were excluded, representing 640 observations. After database treatment, 2,795 observations arising from *missing values* were excluded, resulting in a final sample of 966 observations. To treat the outliers, the observations were winsorized in the percentage of 1% in each tail.

### 3.2 Econometric Modeling

The general models tested in this research came from the works of Demerjian et al. (2012), Demerjian et al. (2013), Baik et al. (2020), and Lang et al. (2012), using fixed year effects that serve to take the main relationship with the effect of time and also using fixed industry effects to take the difference between the industries of the analyzed relationship, according to equation 1 and 2:

$$\text{SMTH}_{i,t} = \alpha_0 + \beta_1 Ma\_score_{i,t} + \sum_{1}^{8} \gamma_n CONTROLS_{i,t} + \sum_{1}^{10} \omega_n INDUSTRY_{i,t} + \varepsilon_{i,t}$$

(1)

$$EM_{i,t+1} = \alpha_0 + \beta_1 Ma\_score_{i,t} + \sum_{1}^{8} \gamma_n CONTROLS_{i,t} + \sum_{1}^{10} \omega_n INDUSTRY_{i,t} + \varepsilon_{i,t}$$

(2)

Where: $SMTH_t$ is the proxy used for earnings smoothing; $Ma\_score$ is the measure of managerial skill; $EM_{t+1}$ is the measure of earnings management; and $\sum_{2}^{8} \beta_n CONTROLS$ is a set of control coefficients that, according to the relevant literature, can influence firms' earnings management levels and are expected not to be associated with managerial skills.

#### 3.2.1 Dependent variables

The aggregate earnings smoothing measure ($SMTH_{i,t}$) is the standard deviation of operating earnings divided by the standard deviation of cash flows from operations with earnings, and cash flows are scaled by lagged total assets (Leuz et al., 2003; Dou et al., 2013), according to equation 3:

$$\frac{\sigma\left(\frac{OE}{TA}\right)}{\sigma\left(\frac{CF}{TA_{-1}}\right)}$$

(3)

Where: $\sigma\left(\frac{OE}{TA}\right)$ represents the standard deviation of the operating earnings scaled by the total assets; and $\sigma\left(\frac{CF}{TA}\right)$ represents the cash flow scaled by the lagged total assets over at least three years (t, t-1, and t-2) of the period studied.

Low values of this coefficient report *ceteris paribus*, insiders exercise accounting discretion to smooth reported earnings (Baik et al., 2020). Therefore, a smaller $SMTH_{i,t}$ suggests that earnings will be smoother (trend of greater earnings smoothing practices). In other words, a smaller $SMTH_{i,t}$ indicates lower earnings volatility in relation to cash flows from operations. In this sense, the coefficient was multiplied by -1 to facilitate its understanding; it is expected to increase with greater smoothing.

The earnings management measure via accruals $EM_t$ is the regression residual that measures the extent to which current accruals map to past, present, or future cash flows, with smaller absolute residuals that indicate superior mapping. Following McNichols (2002), the variation in sales in the current year (ΔREV) and the variation in fixed assets were included, as well as ΔPPE in equation 4:

$$\Delta WC_t = a_0 + a_1 CFO_{t-1} + a_2 CFO_t + a_3 CFO_{t+1} + a_4 \Delta REV_t + a_5 \Delta PPE_t + \varepsilon_t$$

(4)

Thus, the standard deviation of the residual was used over four years, and this deviation was multiplied by -1, so that the variable increases with the earnings quality. That being said, we have: $EM_t$= Standard deviation ($\varepsilon_{+1}$, $\varepsilon_{+2}$, $\varepsilon_{+3}$, $\varepsilon_{+4}$) x -1. Initially, the variable $EM_t$ was calculated in modulus; thus, the objective was to evaluate the level of earnings management regardless of the direction. Later, it was multiplied by -1 to simplify the interpretation of the coefficient so that an increase in the level of EM (more negative values) suggests a lower quality of accounting information.

### 3.2.2 Independent variable of interest

A model based on DEA (Data Envelopment Analysis) developed by Demerjian et al. (2012) was used to measure the managerial capacity of each company. This measure, proposed by Demerjian, has some advantages over other measures of managerial skill: the first is that the DEA offers a ranking compared to the frontier and Pareto efficiency. In other words, it establishes the best efficiency that can be achieved.

To obtain a DEA score, we proceeded with two methodological steps, according to Demerjian et al. (2012). The efficiency measure was obtained by solving an optimization problem through DEA, which maximizes the output variable in seven input variables. Sales revenue is the output variable, and the seven input variables are: net earnings, fixed assets, cost of goods sold, general and administrative sales costs, operating and capitalized leases, research and development, acquired *goodwill,* and other intangible assets, according to equation 5:

$$\frac{\sum_i^s = 1\ u_i\ y_{ik}}{\sum_j^m = 1\ v_i\ x_{jk}} \quad k = 1, \dots, n.$$

(5)

The efficiency score of the optimization procedure includes manager and company characteristics. To get to the measure of managerial capacity, the following model (per industry) was estimated to purge characteristics of the firm level, according to equation 6:

$$Efficiency_t = \beta_0 + \beta_1 Size_t + \beta_2 market\ value_t + \beta_3 positive\ cash\ flow_t + \beta_4 age_t + \varepsilon_t$$

(6)

The dependent variable in equation 6 is the DEA-derived efficiency, measured between 0 and 1. Control variables are designed to capture company-level characteristics, which can affect company efficiency. The residual of equation 6 is the main measure of managerial capacity, which Demerjian et al. (2012) attribute to the management team. Therefore, the residual was classified by year/company in creating the management capacity measure, MA-Score.

### 3.2.3 Control variables

Variables were also included to control the fundamental characteristics of the company's operating environment and determinants of earnings smoothing (Lang et al., 2012). The control variables of the model are company size, leverage, sales volatility, sales growth, operating leverage, mean cash flows, book-to-market ratio, and operating cycle, based on works such as those of Demerjian et al. (2012), Demerjian et al. (2013), and Baik et al. (2020).

## 4 DATA ANALYSIS

Table 1 shows the descriptive statistics for the variables used in the regression tests of the models proposed in equations 1 and 2, with the number of observations, mean, standard deviation, minimum values, first quartile, median, third quartile, and maximum values of the sample. From these results, the smoothing measure presented an average of -1.94%, convergent with Baik et al. (2020). When observing the earnings quality measure (EM), an average of -0.25 was obtained, similar to that of Francis et al. (2005) and Dechow and Dichev (2002).

Regarding the standard deviation for the Management Skills metric (Ma_Score), the average is 0.00034. This result aligns with Demerjian et al. (2012), where such results approach 0.00, and with Baik et al. (2020), who find positive results. It was noticed that the mean level of leverage of the sample is 73%.

**Table 1**
*Descriptive statistics of variables*

| Variables | N | Mean | Standard Deviation | Min | 0.25 | Median | 0.75 | Max |
|---|---|---|---|---|---|---|---|---|
| SMTH | 966 | -1.94 | 5.54 | -75.55 | -1.71 | -0.92 | -0.54 | -0.14 |
| EM | 964 | -0.25 | 0.35 | -2.47 | -0.27 | -0.17 | -0.09 | 0.00 |
| Ma score | 966 | 0.00 | 0.07 | -0.12 | -0.06 | -0.01 | 0.04 | 0.24 |
| Size | 966 | 15.47 | 2.31 | 11.34 | 14.17 | 15.27 | 16.43 | 25.73 |
| Leverage | 966 | 0.73 | 0.61 | 0.00 | 0.47 | 0.62 | 0.77 | 4.34 |
| Sales Vol. | 966 | 0.00 | 0.92 | -1.94 | -0.65 | -0.10 | 0.66 | 2.23 |
| Incr. Sales | 966 | -0.03 | 0.53 | -3.89 | -0.06 | 0.06 | 0.14 | 0.93 |
| Op. Lev | 966 | 0.21 | 0.19 | 0.00 | 0.02 | 0.18 | 0.32 | 0.76 |
| Op. Cycle | 966 | 0.38 | 2.21 | 0.00 | 0.01 | 0.01 | 0.08 | 19.65 |
| BTM | 966 | -1.03 | 13.01 | -106.1 | 0.28 | 0.69 | 1.52 | 9.75 |
| FCL | 966 | 0.71 | 7.99 | -0.97 | 0.02 | 0.06 | 0.110 | 138.9 |

Source: prepared by the author.

Table 2 provides the results for Pearson's correlations between the variables used in the model. The results of these correlations indicate a negative correlation between the measure of earnings smoothing (SMTH) and the measure of managerial skill (Ma_Score), consistent with Demerjian et al. (2013) and Francis et al. (2008).

The signs of the coefficients of the control variables (sales volatility, operating cycle) are those expected according to the literature, which indicates that these variables have a negative relationship with the measure of managerial skill.

Regarding the EM, the measure of managerial skill presents a positive and significant relationship, similar to the results of Demerjian et al. (2012). This result suggests that management

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skills may be associated with earnings quality. In this sense, it should be noted that the following regression tests sought to control such relationships in a multivariate manner, aiming to validate whether the associations are maintained when controls are added to the model.

Table 3 shows the results of regressions 1 and 2, which relate earnings management via earnings smoothing and accruals calculated by estimating the regressions with panel data with fixed industry effects.

**Table 2**

*Pearson Correlation*

|  | SMTH | EM | Ma score | Size | Leverage | Sales Vol. | Incr. Sales |
|---|---|---|---|---|---|---|---|
| SMTH | 1 | | | | | | |
| EM | -0.2774*** | 1 | | | | | |
| Ma score | -0.1613*** | 0.1368*** | 1 | | | | |
| Size | 0.1297*** | -0.3032*** | -0.2395*** | 1 | | | |
| Leverage | -0.3644*** | 0.6906*** | 0.1407*** | -0.2785*** | 1 | | |
| Vol. Sales | -0.0003 | -0.0671** | -0.0058 | -0.0131 | -0.0443 | 1 | |
| Incr. Sales | -0.0927*** | -0.1876*** | -0.0188 | 0.1174*** | -0.2304*** | 0.2880*** | 1 |
| Lever. Op | -0.073** | 0.061* | -0.045 | -0.1365*** | 0.1404*** | 0.0076 | 0.0288 |
| Cycle. Op | -0.0342 | -0.0477 | 0.0900*** | 0.3082*** | -0.081** | 0.0181 | 0.0456 |
| BTM | 0.0498 | -0.5161*** | -0.0005 | 0.1549*** | -0.5023*** | 0.0574* | 0.1379*** |
| FCL | 0.0131 | 0.1725*** | 0.0103 | -0.0755** | -0.0594* | 0.0154 | 0.0104 |
|  | **Lever. Op** | **Cycle. Op** | **BTM** | **FCL** | | | |
| Lever. Op | 1 | | | | | | |
| Cycle. Op | -0.0305 | 1 | | | | | |
| BTM | -0.0199 | 0.0247 | 1 | | | | |
| FCL | 0.0619* | -0.014 | 0.0207 | 1 | | | |

***Denotes the significance of 1%, ** significance of 5%, and * significance of 10%. Source: prepared by the author.

**Table 3**

Model results

| Variables | SMTH | t | EM | t |
|---|---|---|---|---|
| Ma score | -6.326** | -2.07 | -0.401*** | -2.79 |
| Size | -0.005 | -0.07 | 0.0183*** | 4.30 |
| Leverage | -3.881*** | -11.00 | -0.317*** | -7.60 |
| Vol. Sales | -0.102 | -0.55 | 0.010 | 1.30 |
| Incr. Sales | 0.162 | 0.49 | -0.001 | -0.05 |
| Op. Leverage | 0.559 | 0.56 | 0.079 | 1.22 |
| Op. Cycle | 0.068 | 0.85 | -0.004 | -1.29 |
| BTM | -0.071*** | -4.82 | 0.005*** | 3.54 |
| FCL | -3.326 | -1.61 | -0.375*** | -3.31 |
| Cons | 0.53 | -2.07 | 0.264*** | -3.43 |
| Number of Observations | 966 | | 966 | |
| $R^2$ | 0.18 | | 0.55 | |
| Fixed Industry Effect Control | Yes | | Yes | |
| Vif | 1.55 | | 1.55 | |
| F | 0.00 | | 0.00 | |

***Denotes the significance of 1%, ** significance of 5%, and * significance of 10% %. Values of the variance inflation factor (Vif) of all independent variables are between 1 and 10, indicating the absence of multicollinearity.

Source: prepared by the author.

Table 3 shows $R^2$ was 18% and 55%, similar to the studies by Baik et al. (2020) and Demerjian et al. (2013), which had 18.93% and 56.82%, respectively.

The Ma_Score indicator, which captures the managerial capacity of the companies in the sample, showed a negative and significant association for both tests, with a significance of 5% for earnings smoothing and 1% for the test with earnings management via accruals. These results align in the national context with the research by Lunardi et al. (2022), who state that earnings

management by accruals or real activities shows that the most skilled managers can engage in management. Thus, it is possible to state that for the two models tested, managerial capacity is directly associated with earnings smoothing and management via accruals (or inversely proportional to the quality of accounting information; it is assumed that greater management implies lower quality).

The negative results of the Ma_score coefficient are convergent with the research of Demerjian et al. (2013) and Francis et al. (2008), who state that earnings quality is negatively associated with management skills. Corroborating the studies, Lunardi et al. (2022) state that skilled managers prefer this type of management. These results are contrary to the findings of Santos (2020), who, in his research, shows that more skilled managers have higher compensation and thus are justified in receiving better compensation. That said, it is possible to affirm that the presence of more qualified managers in Brazilian companies is associated with greater practices of earnings smoothing and earnings management, which in turn can reduce the quality of information for the market.

Some research reports that these earnings are more complex to measure, which can be explained by the company's operating environment (Dechow & Dichev, 2002; McNichols, 2002; LaFond, 2008). Therefore, management skill influences more earnings management (Demerjian et al., 2013; LaFond 2008).

Concerning the control variable size, it is clear that its relationship with the level of earnings management suggests that larger companies tend to manage their earnings less, evidence in line with the results of Huang and Sun (2017), who highlighted in their research that the largest companies are associated with earnings management, that is, larger companies tend to adopt more management practices.

Regarding the control variable of the book-to-market ratio, its positive and significant result in the EM model is in line with Baik et al. (2020), which shows that companies whose managers are more skilled are characterized by more significant growth in the book-to-market ratio. The control variable leverage was significant and negative for both models, thus suggesting that more indebted companies use earnings management and smoothing to report more competitive earnings. These results converge with the research of Huang and Sun (2017), Baik et al. (2018), and Demerjian et al. (2020).

## 5 FINAL CONSIDERATIONS

This study investigated the influence of management skills in earnings management via smoothing and accruals in companies listed on B3. For this, 966 observations of Brazilian companies from 2010 to 2020 were analyzed.

The results showed that most companies smoothed and managed earnings in the period studied. The results are similar to those of Baik et al. (2018), Demerjian et al. (2013), and Demerjian et al. (2020), justified by the existence of management due to agency conflicts.

Regarding management skills, it was impossible to reject H1, so the results suggest that more skilled managers tend to use more earnings smoothing practices. Such findings are consistent with Baik et al. (2020) and Demerjian et al. (2020).

The H2 of this study could also not be rejected since the models indicate higher levels of earnings management by companies with more skilled managers. These results are in line with the findings of Demerjian et al. (2020), LaFond (2008), and Huang and Sun (2017), who stated that the skill of managers reduces management and, consequently, tends to increase the quality of accounting information.

The research contributes to expanding the literature on earnings management and management ability. Previous studies have established connections between management skill and quality of information, addressing aspects such as earnings persistence (Demerjian et al., 2013),

earnings smoothing (Baik et al., 2019; Demerjian et al., 2017), and REM (Huang & Sun, 2017). This study expands on this knowledge by showing that management skills can influence management and smoothing practices. The results obtained in this study corroborate those found by Demerjian et al. (2017), but present differences to that observed by Demerjian et al. (2013).

The results of this research are limited to the period studied and bring other limitations. While the results strongly suggest that management skill is associated with earnings management, this connection can be attributed, in part, to organizational complexity and the hiring of talented managers capable of handling the intricate nature of the environment. Therefore, one can support the thesis that earnings management may be a natural consequence not of the manager's individual performance but rather of the deliberate selection of the management team by the choices made by the companies.

It is recognized that inferences depend on the measure of management skill because it is not observable and, as an effect, more challenging to measure. Despite these limitations, this research has brought relevant results on the ability of skilled managers to influence the quality of information disclosed to the Brazilian capital market.

In this sense, conducting studies with more qualitative approaches is indicated, allowing a more in-depth analysis of the interaction between management skills and earnings management strategies, perhaps through case studies. An investigation of this type would also be beneficial to clarify any uncertainties related to the management skill metric evidenced in the work and also proposed by Demerjian et al. (2013), which was adopted in this study.

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## CONTRIBUTIONS OF THE AUTHORS

| Activities | 1st author | 2nd author | 3rd author |
|---|:---:|:---:|:---:|
| Conceptualization | ♦ | | |
| Data curation | ♦ | | |
| Formal analysis | | ♦ | ♦ |
| Obtaining funding | | | |
| Investigation | ♦ | ♦ | |
| Methodology | ♦ | ♦ | ♦ |
| Project administration | | | |
| Resources | | | |
| Software | ♦ | ♦ | |
| Supervision | | ♦ | ♦ |
| Validation | | ♦ | ♦ |
| View | ♦ | | |
| Writing – first draft | ♦ | | |
| Writing – proofreading and editing | ♦ | | |

## CONFLICTS OF INTEREST

The authors state that there is no conflict of interest concerning this submitted work.