

# Women as CEO (Chief Executive Officer) and CFO (Chief Financial Officer): influence of female presence on the quality of accruals

Mulheres CEO (*Chief Executive Officer*) e CFO (*Chief Financial Officer*): influência da presença feminina na qualidade dos *accruals* 

Mujeres como CEO (*Chief Executive Officer*) y CFO (*Chief Financial Officer*): influencia de la presencia femenina en la calidad de las acumulaciones

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#### **Abstract**

The presence of women in the positions of executive board, senior management and councils has pointed to a significant influence in the reduction of company discretionary accruals. The study started from the assumptions evidenced in hypotheses H1a and H1b that companies with female CEO and/or CFO have less discretionary accruals and so, a higher earnings quality. The empirical model was applied to a sample of 170 non-financial companies listed in B3 S/A – Brasil, Bolsa, Balcão from 2013 to 2018. The results reject H1a. The findings do not reject H1b, that is, there was a significant influence of the female CEO with the decrease in the discretion of accruals, which results in better earnings quality. The survey also recorded the total number of women as CEOs and CFOs, with 25 (2.68%) and 72 (7.73%), respectively, totaling 97 women in both positions.

Keywords: Female Presence; CEO; CFO; Accruals; Earnings Quality

#### Resumo

A presença feminina em cargos de diretoria executiva, gerência de alto escalão e nos conselhos tem apontado influência significativa na diminuição dos *accruals* discricionários das companhias. O estudo parte dos pressupostos evidenciados nas hipóteses H1a e H1b de que empresas com CEO e/ou CFO do gênero feminino possuem menos *accruals* discricionários e, assim, uma maior qualidade dos lucros. O modelo empírico foi aplicado numa amostra de 170 empresas não financeiras listadas na B3 S/A – Brasil, Bolsa, Balcão de 2013 a 2018. Os resultados rejeitam a H1a. Já os achados não rejeitam H1b, ou seja, foi encontrada influência significativa do CFO do gênero feminino com a diminuição da discricionariedade dos *accruals* que resulta em uma melhor qualidade dos lucros. A pesquisa ainda observou o total de mulheres como CEOs e CFOs, sendo 25 (2,68%) e 72 (7,73%), respectivamente, totalizando 97 mulheres em ambos os cargos.

Palavras-chave: Presença Feminina; CEO; CFO; Accruals; Qualidade dos Lucros

#### Resumen

La presencia de mujeres en puestos de dirección, alta dirección y en los consejos ha apuntado a una influencia significativa en la reducción de los devengos discrecionales de las empresas. El estudio parte de los supuestos evidenciados en las hipótesis H1a y H1b de que las empresas con directora ejecutiva y / o directora financiera mujer tienen menos devengos discrecionales y, por tanto, una mayor calidad de beneficios. El modelo empírico se aplicó a una muestra de 170 empresas no financieras que cotizan en B3 S/A - Brasil, Bolsa, Balcão de 2013 a 2018. Los resultados rechazan H1a. Los hallazgos no rechazan H1b, es decir, hubo una influencia significativa de la directora financiera femenina con la disminución en la discreción de las acumulaciones, lo que se traduce en una mejor calidad de las ganancias. La encuesta también observó el número total de mujeres como CEO y CFO, con 25 (2,68%) y 72 (7,73%), respectivamente, para un total de 97 mujeres en ambos puestos.

Palabras clave: Presencia Feminina; CEO; CFO; Accruals; Calidad de Lucros

#### 1 Introduction

Investigations about the presence of women are more frequent in studies in the areas of accounting, especially with regard to the relationship between decision-making by investors and managers. However, despite initiatives that encourage increased representation of women in positions of greater responsibility, their progress remains gradual and slow.

Historical inequalities in occupational terms persist, especially when mentioning that women constitute a minority in status occupations, such as senior management positions and executive positions, such as Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Operations Officer (COO), in addition to the boards of directors (Hryniewicz & Vianna, 2018).

The census conducted by Catalyst (2009) pointed out that in 2006 and 2007, respectively, the percentage of women was 14.8% and 14.6% on the boards of Fortune 500 companies. And, in 2008 and 2009, they represented 15.2% seats on the board of directors, with 90% of these companies having at least one woman representative on their corporate boards, while 20%, more than three of them (Catalyst, 2009).

In 2009, in Canada, women occupied 14% of the board seats of the Fortune 500 companies, and in 41.9% companies there are no women on the board. This percentage reaches 39.5% in 2011. In addition, in 2009, 19.3% Fortune 500 companies held 25% or more women and, in 2011, only 21% (Catalyst, 2019).

With regard to France, the percentage increase in advisors in the management of the companies of *Cotation Assistée en Continu* (CAC 40) was 16.5% in 2010 and 20.6% in 2011 (Natividad, 2011). In addition, the enactment of Law 2011-103 of January, 27<sup>th</sup>,2011, which implies equal representation of men and women on the board of directors and on the fiscal council and professional equality - encouraged French companies to nominate more women on their boards (Hili & Affes, 2012). France, Norway and Spain have legal obligations for women to occupy at least 40% of the board of directors. As in Australia, since 2010 there have been campaigns for companies to have 30% women in the council seats (Fernandes et al., 2015).

The Grant Thornton report (2020) points out that in the last sixteen years there has been a difference in the proportion of women in leadership positions among the nearly 5,000 companies evaluated by the International Business Report (IBR), reaching a global proportion of 29%. As for the data for Latin America, the proportion of women in leadership positions is 33% higher than in the world (Grant Thornton, 2020) and, there is still evidence that the fraction of them in the positions of CEO/CFO in the year 2020 globally corresponds to 20% and 30%, respectively.

Female representation is higher in Belgium (33%), Finland (40%), Iceland (40%), Israel (50%), Italy (33%), Quebec - Canada (50%) and Kenya (33%) than implemented legislation to promote gender quotas on the board of directors (Terjesen et al., 2015). The authors claim that in other nations such as Australia, Austria, Denmark, Germany, Ireland, Luxembourg, Malawi, Malaysia, the Netherlands, Nigeria, Poland, South Africa, Sweden, the United Kingdom and the United States there are codes of good governance practices that recommend gender diversity in boards (Terjesen et al., 2015).

The trend of gender equality is slowly arriving in Brazil, Bill 112/2010 is being processed in the Federal Senate and establishes that the boards of directors of public companies, mixed-capital companies and those controlled by the Federal Government present a minimum percentage of 40% women in its composition until 2022 (Alves, 2010). However, the reality is far from this project, according to the Brazilian Institute of Corporate Governance (IBGC) (2019) in 508 companies listed by Bovespa in the different segments, 197 have at least one woman on the board of directors (38.78%) and 165 (32.48%) when only the participation of effective directors is considered.

Regarding the presence of women in CEO positions, the press describes a shortage of female leadership in the business world. In 2006, the New York Times reported that nine of the CEOs of Fortune 500 companies were women, accounting for less than 2% of the total (Bartz & Creswell, 2006). Accounting and finance studies indicate that a CFO has a direct impact on financial reporting (Barua et al., 2010) and on accrual management decisions of companies (Feng et al., 2011; Jiang; Petroni; Wang, 2010; Mian, 2001) and

that, in general, women are more risk-averse and more conservative than men when making financial decisions (Liu et al., 2016).

A more recent strand of the literature points to evidence that women presence in senior management positions: reduces the likelihood of fraud (Capezio & Mavisakalyan, 2016; Cumming et al. 2015) and improves the quality of earnings (Srinidhi et al. 2011; Zalata et al. 2018). Likewise, they suggest that executive directors are associated with more conservative financial reporting (Ho et al. 2015; Palvia et al. 2015), higher accounting quality (Barua et al. 2010) and reduced fraudulent financial reporting (Sun et al. 2019).

The female presence on the board improves the quality of discussions and increases the ability to better supervise the disclosure of financial information and accounting reports by companies (Gul et al., 2011). The authors also affirm that the fact can affect the informativeness of the stock price since boards and councils with female presence present better discussions of issues ignored by the male boards and, therefore, the communication becomes more effective among the board members (Ray, 2005), which allows more reliable disclosures of financial information and reports, by directly influencing the informativeness of stock prices and the reduction of information costs for managers and investors (Durnev et al., 2004).

Moreover, the female presence on the administrative, fiscal, audit and governance boards increases their supervisory power, which requires greater responsibility from managers in relation to the performance of companies (Gul et al., 2011). It is still reported that the inclusion of women in senior management positions in the company is positively associated with earnings quality (Krishnan & Parsons, 2008).

Ismail, Shafe and Ismail (2020) highlight the lack of studies on the relationship of female presence in CEOs/CFOs positions in developing countries and emerging economies. Thus, this study sought to investigate this research gap by contributing to the literature, by investigating the relationship of the influence of female presence in CEO and CFO positions on the quality of accruals, of Brazilian companies that have shares traded at B3 S/A - Brasil, Bolsa, Balcão.

Based on these facts, the present study raises the following research problem: What is the influence of female presence in CFOs and CEOs positions on the quality of accruals? In this way, it aims to verify the influence of female presence in the positions of CFOs and CEOs on the quality of accruals through statistical inferences.

The study sought to contribute to the literature by discussing the effect of female presence on improving the quality of accruals, which is one of the differentials of the research. In addition, it sought to demonstrate to companies and regulatory bodies the importance of organizations having female members in senior positions to improve the quality of accruals.

The motivation of the study is due to the increase (voluntary or not) of the female presence in the management of Brazilian companies in recent years and the need to understand the dynamics of this in the quality of corporate reports. Therefore, the study sought to fill the research gap on the relationship between female presence in the positions of CEO and CFO with the quality of profits.

The article also contributes indirectly to the literature about women in senior management positions and the many positive effects they can bring to companies. To paraphrase Francesca Lagerberg, global leader of network capabilities at Grant Thornton International Ltd.: Why is having more women in leadership positions important? For the value obtained through the diversity of thoughts, because if the leadership of a company is formed by groups of people with similar origin, culture and gender, something is lost in the market. Therefore, it takes diversity to observe the world with a broader view, which probably reflects better their customers and the problems and opportunities they face (Grand Thornton, 2020).

Consequently, the present research can assist researchers in future studies, as a way to broaden the understanding of the impact of women CEOs and CFOs in the context of accounting, specifically in financial reports.

## 2 Theoretical framework

## 2.1 Information on the quality of earnings and share prices

Loomis (1999) argues that earnings management is seen by CEOs as a tool to ensure that companies meet earnings expectations. Loomis (1999) also reports that for the president of the Securities and Exchange Commission (SEC), forged reports and false records are a common problem and found in abundance, just waiting to be revealed.

For Chan et al. (2006), the measurement of accounting accruals is a topic that has received attention in recent years, given the importance of this measure as a possible indicator of earnings quality and the equity valuation of a company. According to Dechow and Dichev (2002), accruals have the role of changing and adjusting cash flows over time and, with adjusted profits, they can facilitate the measurement of companies' performance. However, the authors also point out that accruals are prone to a series of accounting judgments and assumptions of future estimates of cash flows.

According to Lustosa et al. (2010), high accruals associated with high earnings (recognized with low quality profits) may originate in the anticipation of revenues and postponement of expenses, which consequently increases the accounts receivable and accounts payable, which would result in a reduced current

cash flow. Thus, the evaluation of future cash flows based on the isolated values of profit and current cash flow would result in an incorrect prognosis of their values.

The judgments and assumptions of future cash flows facilitate the management of earnings by managers, which can take place in two ways: management based on accruals and management based on real activities. Healy and Wahlen (1999) point out that accrual-based earnings management occurs when managers apply judgment in financial reporting and structuring transactions to alter financial reporting to circumvent the parties interested in the company's economic performance or influence contractual results that depend on the accounting numbers.

Managers can be actively involved in earnings management, because reported accounting profits generally affect their compensation. According to the Agency Theory, managers (agents) are more likely to seek self-interest rather than the interests of shareholders (principal). Thus, to reduce agency conflict, shareholders provide incentive plans, such as linking accounting earnings to managers' compensation. However, managers can manipulate accounting information using discretionary accruals to increase or decrease results at the end of the period (Thiruvadi & Huang, 2011).

## 2.2 Influence of gender on decision making and quality of profits

Studies in the area of financial accounting demonstrate that the CFO impacts the preparation of statements, especially in earnings management, through accounting choices. Adherence to the IFRS (International Financial Reporting Standards) and the increased subjectivity of accounting choices in judging the way in which the entity's equity items are measured are directly reflected in the company's profit and contribute to the management of the entity's results (Favoretto et al., 2016).

Ray (2005) points out that the female presence on the boards allows the directors to be more judicious, with different and often conflicting perspectives. Also, according to the author, boards with greater diversity are less likely to take extreme positions, as they contribute to the awareness of the company on ethical and social responsibility issues, focusing on creating value, showing greater sensitivity to opportunities and threats to companies. The presence of women on the boards and councils also helps to improve the disclosure of accounting information to stakeholders (Gul et al., 2011).

Moreover, there is a difference in leadership style between men and women, while men have a more aggressive style, based on command and compliance, women have a style characterized by trust based on cooperation (Klenke, 2003; Nierdele & Vesterlund, 2007).

Diversified boards where there is more cooperation in the exchange of information between directors and employees help in deeper discussions among members (Gul et al., 2011). Still, the same authors state that a more diversified board increases the likelihood of creating a richer information environment, reducing costs for collecting information mainly from smaller companies.

In view of the current scenario, frequent demands are perceived for organizations to position themselves in relation to the female presence in the composition of their staff and, even before the emergence of the issue, studies aimed at the study of gender, both nationally and internationally, point to a proliferation of research related to the topic (Table 1).

Table 1:
National studies related to gender of CFOs and CEOs

| Author(s)/Date                                                  | Objective                                                                                                                                                     | Main results                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Silva and Margem<br>(2015)                                      | Identify whether the presence of women on the board of directors and executive officers impacts the value/performance of publicly traded Brazilian companies. | There is no statistically significant relationship between the presence of women in senior management positions and the value and performance of companies in Brazil. However, in some econometric models, companies that have at least two women on the board tend to have higher value and better performance.     |
| Segura; Formigoni,<br>Abreu and Costa<br>(2016)                 | Identify whether the presence of women on the board of directors is related to earnings management.                                                           | There is little participation by women and a positive and significant relationship between earnings management and the presence of women on the board of directors.                                                                                                                                                  |
| Silva Júnior and<br>Martins (2017)                              | Analyze the influence of women participation in the boards of directors on the performance of organizations.                                                  | 63% of the analyzed companies do not have women on their board of directors and there is low female representation on them, with a percentage of 5.6% and when comparing the characteristics of organizations with and without female presence, companies with female presence showed better performance.            |
| Dal Magro;<br>Carpes; Vergini,<br>and Silva (2018)              | Identify the incidence of glass ceiling in board positions and its impact on the organizational performance of publicly traded Brazilian companies.           | Investors do not create barriers to the appreciation of companies that promote gender equality in board positions. When the glass ceiling does not affect executive positions and administrative council, companies achieve better financial-economic performance compared to those without women in such positions. |
| Schmiliver;<br>Teixeira; Brandão;<br>Andrade and Jucá<br>(2019) | Check whether the presence of women on the board of directors and the executive board increases the company's value and improves its financial performance.   | The female presence increases the value of the company, ratifying the institutional and resource dependence theories and, in turn, the presence of women on the board of directors and executive board improves financial performance and corroborates the agency and human capital theories.                        |

Source: Prepared by the authors (2020).

The international literature presents a greater number of studies on the relationship between the presence of women and the quality of accounting information. Gul et al. (2011) verified the influence of gender on the quality of the audit, Barua et al. (2010) and Liu; Wei and Xie (2016) investigated the effect of female presence on the quality of accruals, and also Gul et al. (2011) observed its influence in improving the informativeness of the stock price.

Barua et al. (2010) examined the effect of the gender of the CFO and the CEO on the quality of accruals. The results showed that when the CFO and/or CEO is women, there is a reduction in discretionary accruals.

In this same perspective, Liu et al. (2016) analyzed the effects of the CFO gender on the earnings management of Chinese companies between 1999 and 2011. The results showed that female CFOs are less likely to manage earnings compared to the male, because women are more conservative in the analysis of investments.

Gul et al. (2011) found a positive association between the female presence of councils and information about stock prices. For the authors, the improvement of public disclosures of information and financial reports helps to reduce information costs for stakeholders.

Sun, Kent, Qi and Wang (2017) investigated whether management's cognitions, values and perceptions are associated with fraud in 18,863 Chinese companies/year between 2000 and 2014. CFO characteristics are used as proxies for cognitions, values and perceptions of the management, discovering that fraudulent financial reporting is common when CFOs are young, male and have a lower level of education.

Ho, Li, Tam and Zhang (2015) examined the relationship between the CEO's gender and accounting conservatism and detected a positive association between the two. Consistent with conventional wisdom, this association appears to be stronger in companies with high risk of litigation and acquisitions.

Wahid (2019) verified the impact of the female presence of the board on financial misconduct and found that companies with diversified boards make fewer financial reporting errors and engage in less fraud.

Zalata, Tauringana and Tingbani (2018) showed that the proportion of women experts in finance in the CA is associated with less earnings management, while the proportion of men experts in finance does not affect it; this suggests that the presence of a financial expert in the CA may be influenced by the gender of the specialist.

The results of Ye, Zhang and Rezaee (2010) pointed out that proxies of profit quality, including earnings persistence, accuracy of current earnings in forecasting future cash flows, the association of earnings and stock returns with the absolute magnitude of discretionary accruals do not present significant differences for companies with female and male executives in China, due to the spread of egalitarian socialist ideology since the founding of communist China in 1949, while in developed countries, such as in the USA and the United Kingdom, women have expectations of different social roles.

Srinidhi, Gul and Tsui (2011) investigated the association of women belonging to the positions of the companies' board of directors with the quality of profits and pointed out that the companies that have a greater participation of women in councils present better quality of profits.

Based on the research findings, it is believed that the presence of women improves the quality of profits and, in addition, helps to enrich the information and financial reports of companies, which reduces the information costs of investors and increases the informativeness of stock prices in the markets.

## 2.3 Construction of hypotheses

Studies addressing the influence of women in leadership positions on the quality of financial information disclosed by publicly traded companies are incipient and have inconclusive results (Ismail et al., 2020). Previous research indicates that the female presence is significantly associated with a decrease in the discretionary accruals and an improvement in the quality of financial information disclosed by publicly traded companies (Barua et al., 2010; Dhouha et al., 2020; Gonçalves et al., 2019; Gul et al., 2011; Panzer & Müller, 2015; Srinidhi et al., 2011). Therefore, improving the quality of financial information and reporting significantly benefits companies, shareholders and customers (Grosvold et al., 2007).

Gul, Hutchinson and Lai (2013) provide two reasons for including women on the board; moral justice and the possibility of increasing shareholder value. Organizational Theory usually indicates that women on the board are associated with better organizational results, as their inclusion strengthens the decisions of the board and facilitates those considered unpleasant by all male members.

The improved quality of the accounting and financial information of companies is related to the fact that the female presence on the executive board and on the administrative council increases the quality of business discussions, which allows better supervision of the disclosure of information and financial reports (Gul et al., 2011). In addition, it helps managers and investors to make more assertive decisions, as they seem to reflect managers' personal risk preferences. Therefore, they assume that accounting practices and, therefore, women's financial reporting are more conservative (Liu et al., 2016; Zalata et al., 2019). Still, Peni and Vähämaa (2010) showed that female CFOs have more conservative earnings management strategies.

Panzer and Müller (2015) identified that German companies that have diversified boards have less discretionary accruals and a higher degree of financial leverage when the supervisor is a woman. Thus, the

number and position of women on boards has an influence on the quality of companies' financial reports. Bouaziz et al. (2020) found the existence of a positive and significant relationship between the duality and the nationality of the CEO with the quality of the information in financial statements of French companies listed in the CAC All-Tradable index (French Stock Exchange).

Regarding the preparation of reports, Francis et al. (2015) state that the preparation of a company's financial reports is an important function of CFOs. Barua et al. (2010) assert that companies with female CFO have less discretionary accruals. Moreover, financial reporting has fewer estimation errors. This characteristic is explained through the view of the risk aversion theory, which assumes that women are less likely to take risks. Thus, they have more conservative accounting judgment criteria (Zalata et al., 2019). Srinidhi et al. (2011) also highlight a significant influence on the improvement of financial reports that are prepared by women.

With respect to the more conservative accounting judgments made by women who occupy CFO positions, Francis et al. (2015) corroborate when investigating the relationship between the influence of gender and the conservatism of financial reporting. By analyzing the pre- and post-transition period of women as CFO in American companies, the authors concluded that female CFOs are more conservative in the preparation of financial reports. Thus, the risk aversion of women as CFO, is less associated with stock-based compensation, decreased company risk, increased tangibility and decreased level of dividend payments.

Shawver, Bancroft and Sennetti (2005) indicated that female accountants are less likely to be involved in earnings management actions than male accountants. The authors also comment that female accountants are generally "more sensitive to fraud". However, research indicates that this advantage is mitigated by different socializations, environmental or organizational restrictions.

Gonçalves, Gaio and Santos (2019) examined how the presence of women on the board of directors and in the positions of CEO and CFO affect the earnings management of listed European companies. The results of the study suggest that only the female presence as CFO has an impact on the magnitude and management of results. For the authors, companies with female CFO have less discretion in accruals when compared to companies with male CFO. In addition, they found that companies with women in management positions present earnings management in a downward direction, that is, they use discretionary accruals to manage earnings downwards. Kim et al. (2017) also found evidence that women in executive positions play an important role in the formulation of ethical reports, even if the predominant culture is male, where there is a moderating role for these predominantly male relationships.

More recent investigations consider the exogenous CEO turnover to investigate its relationship with the quality of financial information and, consequently, with the reports released by publicly traded companies. In this perspective, the study by Wells (2020) shows how the characteristics of the individual affect the quality of accruals. The author distinguishes the characteristics of the company from the characteristics of the managers to analyze the influence on the quality of accruals and the results indicate that the impact of managers on the choices of companies goes beyond investment decisions that influence the general environment of accounting information.

In summary, the literature shows that the female presence in the positions of CEO and CFO influences the quality of companies' financial reports, since women are more conservative in accounting judgments and more risk-averse. Nevertheless, these results correspond to findings from applied research in the context of developed countries, while there is little empirical evidence on this topic in developing countries and emerging economies. In the case of the present study, the relationship of female presence in positions of CEO and CFO in companies listed on the Brazilian stock exchange will be investigated.

Given the context, the hypotheses of the present study are formulated:

**H1a**: Companies that have a female CEO, have less discretion in accruals and higher earnings quality, compared to companies that have a male CEO.

**H1b**: Companies that have female CFO, have less discretionary accruals and higher earnings quality, compared to companies that have a male CFO.

## 3 Methodological procedures

## 3.1 Sample and data collection

The study population is made up of all non-financial companies listed on B3 S/A, according to classification by sector of the North American Industry Classification System (NAICS) Level 2, and we excluded from the sample companies belonging to the sectors of business and enterprise administration, credit institutions and related activity, investment in securities, commodities and related activities, insurance and insurance broker, data processing service, hosting and other related services and rental and leasing companies, obtaining an initial sample of 283 companies. The exclusion of companies that did not present all the information regarding the variables for the calculation of accruals models and for the econometric model was carried out and the final sample of the research was 179 companies.

Regarding the analyzed period, the data are annual and comprise the period from 2013 to 2018, however, in addition to the collection of annual data, it was necessary to collect guarterly data for all companies

to calculate discretionary accruals corresponding to the Dechow and Dichev (2002) model adapted by Francis et al. (2005), which comprises the period from the 4th quarter of 2012 to the 1st quarter of 2019.

The study variables were collected in the Financial Statements and in the Reference Forms of the bases (i) economatica® and (ii) tatianaalbanez in addition to the website of B3 S/A (Table 2).

# 3.2 Empirical model

To answer the hypotheses of the present study, H1a and H1b, that the presence of women in the positions of CEO and CFO decreases the discretion of accruals and increases the quality of profits, the empirical model presented in equation 1 was elaborated:

$$\begin{split} TCA\_BP_{j,t} &= \alpha_{it} + \beta_1 CEO_{j,t} + \beta_2 CFO_{j,t} + \beta_3 DESEM_{j,t} + \beta_4 TAM_{j,t} + \beta_5 ENDIV_{j,t} + \beta_6 MB_{j,t} + \beta_7 GOV_{j,t} + \beta_8 AUD_{j,t} \\ &+ \beta_9 CICLOOP_{j,t} + \beta_{10} 2014_{j,t} + \beta_{11} 2015_{j,t} + \beta_{12} 2016_{j,t} + \beta_{13} 2017_{j,t} + \beta_{14} 2018_{j,t} \\ &+ \epsilon_{it} \end{split}$$

For the sensitivity analysis of the model, the dependent variable of discretionary accruals calculated by the companies' operating cash was replaced, according to the econometric model presented in equation 2:

$$\begin{split} \text{TCA\_CASH}_{j,t} &= \alpha_{it} + \beta_1 \text{CEO}_{j,t} + \beta_2 \text{CFO}_{j,t} + \beta_3 \text{DESEM}_{j,t} + \beta_4 \text{TAM}_{j,t} + \beta_5 \text{ENDIV}_{j,t} + \beta_6 \text{MB}_{j,t} + \beta_7 \text{GOV}_{j,t} + \beta_8 \text{AUD}_{j,t} \\ &+ \beta_9 \text{CICLOOP}_{j,t} + \beta_{10} 2014_{j,t} + \beta_{11} 2015_{j,t} + \beta_{12} 2016_{j,t} + \beta_{13} 2017_{j,t} + \beta_{14} 2018_{j,t} \\ &+ \epsilon_{it} \end{split}$$

The multivariate model, using the quantile regression model, to check the influence of female presence on the quality of accruals of non-financial companies listed in B3 S/A was used. Quantile regression, according to Fávero and Belfiore (2017), allows the estimation of different percentiles to perform the analysis of the dependent variable (Table 2).

Table 2: Study variables

| Study variables |                                                           | Dependent variables                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                  |
|-----------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Variable        | Description                                               | Operationalization                                                                                                                                                                                                                                                                                                                                                                                                                                                 | References                                                                                                                                       |
| AQBP            | Discretionary Accruals                                    | $\begin{split} \frac{TCA\_BP_{j,t}}{AT_{j,t}} &= \phi_{0,j} + \phi_{1,j} \frac{CFO_{j,t-1}}{AT_{j,t}} + \phi_{2,j} \frac{CFO_{j,t}}{AT_{j,t}} + \phi_{3,j} \frac{CFO_{j,t+1}}{AT_{j,t}} + \phi_{4,j} \frac{\Delta REC_{j,t}}{AT_{j,t}} \\ &+ \phi_{5,j} \frac{IMOB_{j,t}}{AT_{j,t}} + \epsilon_{j,t} \end{split}$                                                                                                                                                  | Francis et al. (2005)                                                                                                                            |
| AQCASH          | Discretionary Accruals                                    | $\begin{split} \frac{\text{TCA\_CASH}_{j,t}}{\text{AT}_{j,t}} &= \phi_{0,j} + \phi_{1,j} \frac{\text{CFO}_{j,t-1}}{\text{AT}_{j,t}} + \phi_{2,j} \frac{\text{CFO}_{j,t}}{\text{AT}_{j,t}} + \phi_{3,j} \frac{\text{CFO}_{j,t+1}}{\text{AT}_{j,t}} + \phi_{4,j} \frac{\Delta \text{REC}_{j,t}}{\text{AT}_{j,t}} \\ &+ \phi_{5,j} \frac{\text{IMOB}_{j,t}}{\text{AT}_{j,t}} + \epsilon_{j,t} \end{split}$<br><b>Variables for calculating Discretionary Accruals</b> | Francis et al. (2005)                                                                                                                            |
| Variables       | Description                                               | Operationalization                                                                                                                                                                                                                                                                                                                                                                                                                                                 | References                                                                                                                                       |
| TCA_BP          | Total Accruals                                            | $TCA\_BP_{j,t} = \Delta AC_{j,t} - \Delta PC_{j,t} - \Delta CASH_{j,t} + \Delta STD_{j,t} - DEP_{j,t}$                                                                                                                                                                                                                                                                                                                                                             | Dechow and Dichev (2002)<br>Francis et al. (2005)                                                                                                |
| TCA_CASH<br>CFO | Total Accruals Cash and cash equivalents                  | $TCA\_CASH_{j,t} = LL_{j,t} - CASH\_OP_{j,t}$                                                                                                                                                                                                                                                                                                                                                                                                                      | Dechow and Dichev (2002)                                                                                                                         |
| ΔREC            | Revenue Variation                                         | $\Delta REC_{i,t} = REC_{i,t} - REC_{i,t-1}$                                                                                                                                                                                                                                                                                                                                                                                                                       | Francis et al. (2005)                                                                                                                            |
| IMOB            | Immobilized                                               | Total do imobilizado da empresa                                                                                                                                                                                                                                                                                                                                                                                                                                    | Francis et al. (2005)                                                                                                                            |
| ΔAC             | Variation in current assets                               | $\Delta AC_{i,t} = AC_{i,t} - AC_{i,t-1}$                                                                                                                                                                                                                                                                                                                                                                                                                          | Francis et al. (2005)                                                                                                                            |
| $\Delta PC$     | Variation in current liabilities                          | $\Delta PC_{i,t}^{j,t} = PC_{i,t}^{j,t} - PC_{i,t-1}^{j,t-1}$                                                                                                                                                                                                                                                                                                                                                                                                      | Francis et al. (2005)                                                                                                                            |
| ∆CASH           | Variation in cash and cash equivalents                    | $\Delta CASH_{i,t} = CASH_{i,t} - CASH_{i,t-1}$                                                                                                                                                                                                                                                                                                                                                                                                                    | Francis et al. (2005)                                                                                                                            |
| ΔSTD            | Variation in Short Term Loans and Financing               | $\Delta STD_{j,t} = STD_{j,t} - STD_{j,t-1}$                                                                                                                                                                                                                                                                                                                                                                                                                       | Francis et al. (2005)                                                                                                                            |
| DEP             | Depreciation                                              | Depreciation expense for the period                                                                                                                                                                                                                                                                                                                                                                                                                                | Francis et al. (2005)                                                                                                                            |
| LL              | Net Profit                                                | Net profit for the period                                                                                                                                                                                                                                                                                                                                                                                                                                          | Dechow and Dichew (2002)                                                                                                                         |
| CASH_OP         | Operating cash                                            | Total operating cash of the company in the period                                                                                                                                                                                                                                                                                                                                                                                                                  | Dechow and Dichew (2002)                                                                                                                         |
|                 |                                                           | Independent variables                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                  |
| Variables       | Description                                               | Operationalization                                                                                                                                                                                                                                                                                                                                                                                                                                                 | References                                                                                                                                       |
| CFO             | Chief Financial Officer/Director of<br>Investor Relations | Dummy variable:<br>0 - Male gender<br>1 – Female gender                                                                                                                                                                                                                                                                                                                                                                                                            | Gonçalves et al. (2019)<br>Liu et al. (2016)<br>Panzer and Müller (2015)<br>Habib and Hossain (2013)<br>Gul et al. (2011)<br>Barua et al. (2010) |
| CEO             | Director/President                                        | Dummy variable:<br>0 - Male gender<br>1 – Female gender                                                                                                                                                                                                                                                                                                                                                                                                            | Dhouha et al. (2020) Liu et al. (2016) Terjesen, Couto and Francisco (2016) Srinidhi et al. (2011) Adams and Ferreira (2009)                     |

|           | Control variables                       |                                                                  |                                                                                                                          |  |  |  |  |  |
|-----------|-----------------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| Variables | Description                             | Operationalization                                               | References                                                                                                               |  |  |  |  |  |
| GOV       | Governance Level<br>Brasil Bolsa Balcão | Dummy variable:<br>0- no governance level<br>1- governance level | Gul et al. (2011)<br>Adams and Ferreira (2009)                                                                           |  |  |  |  |  |
| SIZE      | Natural logarithm of total assets       | ln AT                                                            | Liu et al. (2016)<br>Gul et al. (2011)<br>Barua et al. (2010)<br>Dechow and Dichev (2002)                                |  |  |  |  |  |
| МТВ       | Market-to-Book                          | $MB = \frac{Market\ value}{PL}$                                  | Gonçalves et al. (2019)<br>Liu et al. (2016)<br>Gul et al. (2011)<br>Barua et al. (2010)                                 |  |  |  |  |  |
| ROA       | Return on Assets                        | $ROA = \frac{Net\ profit + PAM}{Total\ assets} * 100$            | Gonçalves et al. (2019)<br>Liu et al. (2016)<br>Gul et al. (2011)<br>Srinidhi et al. (2011)<br>Adams and Ferreira (2009) |  |  |  |  |  |
| OC        | Operational Cycle                       | CICLOOP = PME + PMR - PMF                                        | Srinidhi et al.(2011)<br>Barua et al. (2010)                                                                             |  |  |  |  |  |
| OLR       | Overall Liquidity Ratio                 | $Overall\ liquidity = \frac{AT + RPL}{PC + PNC}$                 | Gonçalves et al. (2019)                                                                                                  |  |  |  |  |  |
| BIG4      | Audit Company                           | Dummy variable:<br>0- No Big Four<br>1- Big Four                 | Srinidhi et al. (2011)<br>Barua et al. (2010)                                                                            |  |  |  |  |  |

## 4 Presentation and analysis of results

# 4.1 Descriptive analysis of the correlation of variables

The results of the study in relation to the number of women as CEOs and CFO indicate 25 women (2.68%) CEOs and 72 (7.73%) CFOs, totaling 97, which indicates a low female presence. Data confirm Hryniewicz and Vianna (2018) who claimed that women have low representativeness in the positions of CEO, CFO and COO. Furthermore, the results show that 76.72% companies analyzed are listed in some of B3 S/A corporate governance levels and 80.90% are audited by BIG 4 audit companies.

The descriptive analysis of quantitative data that make up the econometric model is presented in Table 3. Regarding the analysis of dependent variables, it is noted that the discretionary accruals (AQBP) have an average of -0.03. The results presented are in agreement with the findings of Gonçalves et al. (2019), Na and Hong (2017), Wells (2020). The measures of discretionary accruals (AQBP; AQC) present the same average for both analyses, which highlights the robustness and validity of the accruals measure used in the main econometric model.

Regarding the size of the companies (TAM), the average was 15.23 in the analyzed period. In addition, when verifying the average of the Market-to-Book indices that evidence the relationship between the market value and the companies' shareholders' equity, the results point to an average index of 1.95, that is, investors are paying on average R \$ 1.95 for each R \$ 1.00 recorded in the companies' shareholders' equity. In relation to the return on assets (ROA), the companies analyzed have an average ROA of 5.95.

Table 3: Descriptive statistics of quantitative variables

| Variables | OBS | Mean   | Standard deviation | Minimum | Maximum   |  |
|-----------|-----|--------|--------------------|---------|-----------|--|
| AQBP      | 932 | -0.03  | 0.02               | -0.13   | 0.00      |  |
| AQCASH    | 932 | -0.03  | 0.02               | -0.12   | 0.00      |  |
| SIZE      | 932 | 15.23  | 1.70               | 9.64    | 20.62     |  |
| MTB       | 932 | 1.95   | 2.38               | 0.02    | 26.83     |  |
| ROA       | 932 | 5.95   | 5.07               | 0.01    | 37.62     |  |
| OC        | 932 | 284.23 | 2,906.48           | 3.80    | 88,414.56 |  |
| OLR       | 932 | 1.30   | 1.46               | 0.06    | 19.74     |  |

Legend: AQBP - Discretionary accruals Balance Sheet; AQCASH - Discretionary Accruals Operating Cash; SIZE- Ln total assets; MTB-Market-to-book; ROA - Return on Assets; OC - Operational Cycle; OLR - Overall Liquidity Ratio. Source: Research data (2020).

Companies need an average of 284 days to carry out the operating cycle and have an average overall liquidity index (OLR) of 1.30, that is, the results indicate that companies have sufficient resources to honor their short-, medium- and long-term financial commitments.

Table 4 lists the Spearman correlation matrix, which, according to Fávero and Belfiore (2017), is the most suitable correlation analysis model when using in the same model quantitative and qualitative variables.

Table 4: **Spearman Correlation Matrix** 

|        | AQBP   | AQC    | GOV   | CEO   | CFO   | TAM    | MTB    | ROA    | CCO    | LG     | BIG4 |
|--------|--------|--------|-------|-------|-------|--------|--------|--------|--------|--------|------|
| AQBP   | 1.00   |        |       |       |       |        |        |        |        |        |      |
| AQCASH | 0.18*  | 1.00   |       |       |       |        |        |        |        |        |      |
| GOV    | -0.07* | -0.07* | 1.00  |       |       |        |        |        |        |        |      |
| CEO    | 0.02   | 0.01   | 0.01  | 1.00  |       |        |        |        |        |        |      |
| CFO    | 0.01   | 0.05   | 0.01  | 0.16* | 1.00  |        |        |        |        |        |      |
| SIZE   | 0.10*  | 0.08*  | 0.20* | 0.02  | -0.05 | 1.00   |        |        |        |        |      |
| MTB    | -0.23* | 0.00   | 0.04  | -0.02 | 0.01  | 0.12*  | 1.00   |        |        |        |      |
| ROA    | -0.17* | -0.19* | 0.00  | -0.01 | 0.03  | -0.20* | 0.28*  | 1.00   |        |        |      |
| OC     | 0.01   | 0.04   | 0.07* | 0.03  | -0.04 | -0.20* | -0.27* | -0.02  | 1.00   |        |      |
| OLR    | -0.08* | -0.02  | -0.01 | -0.01 | 0.03  | -0.41  | -0.15* | 0.22*  | 0.43*  | 1.00   |      |
| BIG4   | -0.01  | 0.00   | 0.29* | -0.04 | 0.01  | 0.35*  | 0.20*  | -0.07* | -0.13* | -0.14* | 1.00 |

Legend: AQBP - Discretionary accruals Balance Sheet; AQCASH - Discretionary Accruals Operating Cash; GOV - Level of Corporate Governance; SIZE - Ln total assets; MTB- Market-to-book; ROA - Return on Assets; OC - Operational Cycle; OLR - Overall Liquidity

Source: Research data (2020).

The independent variables do not show a strong correlation with each other, therefore reducing the incidence of multicollinearity, which was shown in Table 4.

<sup>\*</sup> significance level at 10%

<sup>\*\*</sup>significance level at 5%

<sup>\*\*\*</sup> significance level at 1%

## 4.2 Analysis and discussion of results

The relationship between the presence of women as CEO and the decrease in the discretion in accruals, Table 5, pointed out no significant evidence, thus, it is not possible to state that the female presence as CEO of the company reduces the discretion in accruals. The research findings corroborate Gonçalves et al. (2019), Peni and Vähämaa (2010), who also showed no significant relationship between the presence of women as CEO and the reduction in the discretion in accruals. Still, it contradicts Dhouha et al.(2020) with a positive and significant influence of the presence of women as CEO with the improvement of the quality of the accounting statements. However, the companies that compose the quartile 0.10, presented a negative and significant relationship regarding the female presence and the decrease in the discretion in accruals.

The companies composing quartiles 0.75 and 0.90 have a positive and significant relationship between the presence of women as CFOs in reducing the discretion in accruals (Table 5). These results are consistent with Barua et al. (2010), Gonçalves et al. (2019) who also found a positive and significant relationship between the presence of women as CFOs in decreasing the discretion in accruals and consequently in improving financial and accounting reports. It also corroborates Wells (2020), who identified this association when examining the female presence and the characteristics of individuals occupying CFO positions with the decrease in the discretion in accruals.

Kim et al. (2017) also identified that the female presence as CFO has relevant performance in the formulation of more ethical reports and with a higher quality of financial information referring to Korean companies, where cultural aspects are predominantly male. In addition, Francis et al. (2015) and Srinidhi et al. (2011) warn that companies with female CFOs have more conservative reports than companies with male presence.

Regarding the hypotheses assumed in the study, the results reject hypothesis H1a, that is, there was no significant influence of the female presence in the CEO position with the decrease in the discretion in accruals in the analyzed companies. On the other hand, the results found in the quartiles (0.10; 0.75 and 0.90) do not reject the H1b hypothesis, therefore, significant evidence was found that the female presence in the position of CFO helps to decrease the discretion in accruals of the companies that compose the quartiles (0.10; 0.75 and 0.90) analyzed in the study.

The results obtained for the control variables showed a significant relationship between the size variables (SIZE); Market-to-Book (MTB) with the discretion in accruals in all analyzed quartiles, while performance (ROA) also presents a significant relationship except in quartile 0.90, which corroborates Gonçalves et al. (2019) in relation to the significance of MTB and ROA.

Table 5: Multivariate data analysis

|                       |               |          | Qua           | ality of accruals | using the Balan | ce Sheet metho | d              |         |                |         |  |
|-----------------------|---------------|----------|---------------|-------------------|-----------------|----------------|----------------|---------|----------------|---------|--|
|                       | Quartiles     |          |               |                   |                 |                |                |         |                |         |  |
| VAR                   | 0.10          |          | 0.2           | 0.25              |                 | 0.50           |                | 0.75    |                | )       |  |
|                       | Coef.         | Est T    | Coef.         | Est T             | Coef.           | Est T          | Coef.          | Est T   | Coef.          | Est T   |  |
| CEO                   | 0.0033        | 0.41     | -0.0042       | -1.13             | 0.0063          | 0,58           | -0,0014        | -1,07   | -0,0004        | -0,31   |  |
| CFO                   | -0.0091       | -2.58**  | -0.0067       | -1.57             | -0.0018         | -0,35          | 0,0058         | 3,45*** | 0,0063         | 2,15**  |  |
| GOV                   | -0.0076       | -0.98    | -0.0077       | -1.38             | -0.0036         | -0,81          | -0,0011        | -0,40   | -0,0025        | -1,07   |  |
| SIZE                  | 0.0022        | 2.70**   | 0.0020        | 2.38**            | 0.0015          | 2,55**         | 0,0009         | 2,81**  | 0,0010         | 3,00**  |  |
| MTB                   | -0.0033       | -3.72*** | -0.0035       | -3.81***          | -0.0020         | -2,47**        | -0,0014        | -2,04** | -0,0005        | -0,81   |  |
| ROA                   | -0.0006       | -1.65*   | -0.0007       | -2.17**           | -0.0004         | -1,97**        | -0,00042       | -2,39** | -0,0001        | -0,72   |  |
| OC                    | $3.73e^{-07}$ | 0.01     | $7.46e^{-08}$ | 0.00              | $1.98e^{-07}$   | -0,01          | $-3,69e^{-07}$ | -0,02   | $-5,11e^{-07}$ | -0,04   |  |
| OLR                   | -0.0004       | -0.10    | 0.0002        | 0.07              | -0.0009         | -1,26          | -0,0009        | -0,51   | -0,0010        | -1,23   |  |
| BIG4                  | -0.0013       | -0.12    | -0.0014       | -0.27             | -0.0019         | -0,43          | -0,0011        | -0,45   | -0,0006        | -0,36   |  |
| _Cons                 | -0.0746       | -4.04*** | -0.0548       | -3.72             | -0.0390         | -3,44***       | -0,0194        | -2,70** | -0,0160        | -2,65** |  |
| Pseudo R <sup>2</sup> | 0.0073        |          | 0.06          | 888               | 0.0             | 533            | 0.043          | 30      | 0.0331         |         |  |

Legend: AQBP - Discretionary accruals Balance Sheet; GOV - Level of Corporate Governance; SIZE - Ln total assets; MTB- Market-to-book; ROA - Return on Assets; OC - Operational Cycle; OLR - Overall Liquidity Ratio.

Source: Research data (2020).

<sup>\*</sup> significance level at 10%
\*\*significance level at 5%
\*\*\* significance level at 1%

The variables levels of governance (GOV), overall liquidity ratio (OLR), audit (BIG4) and operational cycle (OC) do not have a significant influence with the decrease in the discretion in accruals. Findings that contradict the studies of Edwards et al. (2013), where the level of accruals management is lower in companies with higher levels of corporate governance. Besides that, the evidence found by Barua et al. (2010) and Gul et al. (2011) that companies being audited by BIG4 have no significant relationship with the decrease in the discretion in accruals.

Still in relation to the result in Table 5, it was noticed that the model presents R<sup>2</sup> of 20.55, therefore the proposed econometric model explains 20.55% variation in the behavior of the variables and the results found in the model

## 4.3 Sensitivity analysis

For the sensitivity analysis, a change was made to the method of calculating discretionary accruals from the perspective of the variables that make up the Balance Sheet to the approach of Dechow and Dichev (2002), which use the model perspective with the variables related to operating cash flow. The sensitivity model has an R<sup>2</sup> of 31.34, that is, the model explains 31.34% variability of the results found in the proposed econometric model.

The results demonstrate that there is no significant influence of the female presence in the CEO positions with the decrease in accruals discretion (Table 6). Thus, the results evidenced in the previous section are confirmed, which also found no significant relationship between the influence of the presence of women as CEO and the decrease in accruals discretion.

Considering the findings that check the influence of the female presence as CFOs in decreasing the accruals discretion, statistical inferences detected a significant relationship in quartiles 0.10; 0.25 and 0.90, which confirms the results found in the previous section, pointing to a significant influence between the female presence as CFO and the decrease in accruals discretion in the companies belonging to these quartiles.

As for the control variables, the sensitivity model also confirms the results presented in Table 5, in relation to the variables that have influence with the decrease in accruals discretion in the analyzed companies.

Table 6: Analysis of model sensitivity

|                       |               |           | Quali         | ty of accruals u | sing Operationa | I Cash method |               |         |                |         |  |
|-----------------------|---------------|-----------|---------------|------------------|-----------------|---------------|---------------|---------|----------------|---------|--|
|                       | Quartis       |           |               |                  |                 |               |               |         |                |         |  |
| Variables             | 0.10          |           | 0.25          |                  | 0.              | 0.50          |               | 0.75    |                | 0.90    |  |
| variables             | Coef.         | Est T     | Coef.         | Est T            | Coef.           | Est T         | Coef.         | Est T   | Coef.          | Est T   |  |
| CEO                   | -0.010        | -0.59     | 0.0004        | 0.03             | -0.0001         | -0.04         | 0.0010        | 0.57    | -0.0032        | -0.81   |  |
| CFO                   | 0.0118        | 2.02**    | 0.0074        | 2.19**           | 0.0040          | 1.44          | 0.0029        | 1.87*   | 0.0007         | 0.56    |  |
| GOV                   | -0.0128       | -1.46     | -0.0100       | -1.16            | -0.0052         | -1.48         | -0.0002       | -0.08   | 0.0002         | 0.10    |  |
| SIZE                  | 0.0004        | 0.40      | -0.0000       | -0.02            | 0.0007          | 1.60          | 0.0007        | 1.93*   | 0.0004         | 1.70*   |  |
| MTB                   | -0.0001       | -0.13     | -0.0001       | -0.14            | -0.0001         | -0.24         | -0.0002       | -0.36   | -0.0002        | -1.69   |  |
| ROA                   | -0.0026       | -13.79*** | -0.0019       | -5.28***         | -0.0010         | -4.87***      | -0.0005       | -3.01** | -0.0002        | -3.34** |  |
| oc                    | $5.78e^{-07}$ | 0.01      | $3.37e^{-07}$ | 0.03             | $1.44e^{-07}$   | 0.00          | $2.87e^{-08}$ | -0.00   | $-1.55e^{-07}$ | -0.02   |  |
| OLR                   | 0.0018        | 0.68      | 0.0009        | 0.48             | 0.0007          | 0.52          | 0.0002        | 0.14    | -0.0003        | -0.47   |  |
| BIG4                  | 0.0013        | 1.58      | 0.0043        | 0.71             | -0.0008         | -0.27         | -0.0013       | -0.54   | -0.0009        | -0.51   |  |
| _Cons                 | -0.0551       | -2.47**   | -0.0259       | -2.26**          | -0.0279         | -3.24**       | -0.0190       | -2.98** | -0.0096        | -2.31** |  |
| Pseudo R <sup>2</sup> | 0.1376        |           | 0.0833        |                  |                 | 0.0398 0.03   |               |         | 243 0.0284     |         |  |

Legend: AQCASH - Discretionary Accruals Operating Cash; GOV - Level of Corporate Governance; SIZE - Ln total assets; MTB- Market-to-book; ROA - Return on Assets; OC - Operational Cycle; OLR -Overall Liquidity Ratio.

Source: Research data (2020)

<sup>\*</sup> significance level at 10%
\*\*significance level at 5%
\*\*\* significance level at 1%

#### 5 Final considerations

Recent studies sought to check the influence of the female presence in high-level positions, executive board and councils in relation to the quality of information and financial reports released by companies. This study contributes to this literature by verifying the influence of the CEO and CFO gender on the quality of accruals and profits of publicly-held companies listed in B3 S/A from 2013 to 2018.

The results show that the presence of women in the positions of CEOs does not significantly influence the decrease in discretionary accruals, thus rejecting hypothesis H1a of the study. These results may be associated with the low presence of women as CEOs, since only 2.68% sample has women occupying CEO positions in the analyzed companies. In addition, Kim et al. (2017) affirm that the cultural issues of the countries related to the major presence of men in management positions influences the behavior of organizations in the choice of managers. In relation to the H1b hypothesis, the results do not reject the H1 hypothesis. It is concluded that the significant influence of the female presence in the reduction of discretionary accruals of the analyzed companies. When analyzing the other variables of this study, it is noticed that the size, Market-to-book and performance (ROA) of the companies have a significant relationship with the decrease in accruals discretion. Contrary to previous evidence, the level of governance, general liquidity, operating cycle and the audit carried out by BIG4 were not associated with a decrease in accruals discretion.

It can be concluded that the female presence in the positions of CFO helps to decrease the discretion in accruals, which improves the quality of accounting reports of the analyzed companies. Francis et al. (2015) evidence that the CFO plays a key role in the preparation of accounting and financial reports released by the organization.

As research limitations, there is little female representation in the positions of CEO and CFO in the scenario of Brazilian companies listed in B3 S/A and variables that reflect the country's culture that may influence the choice of managers have not yet been controlled.

For future research, it is suggested to investigate the relationship between female presence and other earnings quality metrics, on aspects of mandatory and voluntary disclosure of information related to the company, and also to identify how female presence influences the criteria of accounting judgments, increasingly present after the introduction of the International Financial Reporting Standards (IFRS). In addition, future studies could try to explain this phenomenon in a more qualitative way.

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