



EARNINGS MANAGEMENT AND SHAREHOLDER VALUE CREATION IN BRAZIL: DOES CORPORATE GOVERNANCE MATTER?

Raíssa Aglé Moura de Sousa

Mestranda em Contabilidade pelo Programa de Pós-Graduação em Ciências Contábeis da Universidade Federal da Paraíba (PPGCC/UFPB)
Cidade Universitária - Campus I, Castelo Branco, CEP: 58059-900 - João Pessoa/PB
Tel.: (83) 3216-7492. E-mail: raissa.agle@hotmail.com

Álysson Leandro Nascimento de Oliveira

Mestrando em Contabilidade pelo Programa de Pós-Graduação em Ciências Contábeis da Universidade Federal da Paraíba (PPGCC/UFPB)
Cidade Universitária - Campus I, Castelo Branco, CEP: 58059-900 - João Pessoa/PB
Tel.: (83) 3216-7492. E-mail: alysson.ln.oliveira@gmail.com

Orleans Silva Martins

Doutor em Contabilidade

Professor do Programa de Pós-Graduação em Ciências Contábeis da UFPB (PPGCC/UFPB)
Cidade Universitária - Campus I, Castelo Branco, CEP: 58059-900 - João Pessoa/PB
Tel.: (83) 3216-7492. E-mail: orleansmartins@yahoo.com.br

ABSTRACT

This research sought to verify which are the existing relations between the accounting earnings management and the shareholder value creation in companies within or not the new market segment of corporate governance in the Brazilian stock market. To do so, we used a basing-up study on empirical evidence on corporate governance, earnings management and shareholder value creation, so the study covered 232 companies with shares traded on the BM&FBOVESPA from 2011 to 2014. Since there were problems of autocorrelation and heteroscedasticity with the variables, we used the quantile regression model with robust standard errors to estimate the discretionary accruals and relate them to the value creation and the governance of companies. In its results, we found that, in general, there was a positive relationship between the earnings management and the shareholder value creation proxies, except for the dividend yield, while the corporate governance presented negative effect on these relationships, however, in a limited way, being significant only in 0.25 quantile of the analysed sample. These results confirm the existing literature. Therefore, the robust evidence and the its similarity to the international literature stand out as the major contributions of this study, with regard to the use of a robust regression model to the usual problems of autocorrelation and heteroscedasticity in research with accounting data.

Key-words: Accruals; Dividend Yield; New Market.

Área Temática do evento: Mercados Financeiro, de Crédito e de Capitais.

1 INTRODUCTION

The realization of investment in the stock market has been a practice increasingly used by different capital savers, aiming, sometimes, to add value to their wealth. However, the decision on which company to invest can be directly linked to the results reported by the companies, once these investors tend to fix their attention especially in the analysis of these results (Houston, Lev & Tucker 2010, Elliot, Hobson & Jackson, 2011), the international



literature calls it "earnings fixation". In this sense, to evaluate a company, one of the information that usually has greater relevance to users of accounting information tends to be the presented profit, and it may be the first source of information for making investment decisions.

The Financial Accounting Standard Board (FASB) corroborates the above, by mentioning on SFAC 1 that investors and lenders worry about the measurement of net flows from companies, but they often use profit to assess the capability of generating results or cash flows, to predict their future profits and assess the return and the risk of the investment. Furthermore, the results of the company can be used, among other ways, as a guide to the management of the company, in the direction of its business, since the shareholders' search for better results is a constant as a way to add value to themselves, and it might be a decisive incentive for managers to manage these financial results as a way to present them as more advantageous than the actual result would be.

Therefore, this fixation on corporate earnings, by investors, can pose a growing risk to them, since companies can intentionally manage these results. That is, company managers can manipulate the results of the company and report an increased operating profit or manipulate the levels of spending on research and development (P&D) and other components of the profits, as pointed out by Cohen, Dey and Lys (2008). However, the risks of investors, as well as of other interested in accounting information, organizations can be minimized with the implementation of attributes that govern the management of enterprises and reduce the difference between the information held by major shareholders and managers, in relation to information the other shareholders and creditors have about the company, in which case, according to Healy and Palepu (2001), the efficient allocation of resources in the market is prevented.

In this context, corporate governance, according to Silveira (2002) can be understood as the set of internal and external mechanisms that are intended to balance the relationship between managers and shareholders, given the separation between control and ownership. Some assumptions highlighted by Ramos and Martinez (2006) regarding corporate governance are: (i) investor protection rules while minimizing the chances of expropriation of the minority by the majority investors; (ii) establishment of a qualified, independent Board of Directors; (iii) creation of committees for specific purposes, associated with the areas that require deeper studies in order to support decisions of the Council; and (iv) the independent audit.

According to Shleifer and Vishny (1997), when companies have good corporate governance practices, investors and shareholders have a set of mechanisms that ensure them getting returns on their investments. As an example, one can cite transparency, one of the principles of good corporate governance practices established by Brazil's corporate governance Institute (IBGC), in which a company committed to transparency can maximize shareholder value, by providing reliable information about the company.

As regards the relationship between earnings management and corporate governance, Dechow and Skinner (2000) presented evidence that when a company has weakened corporate governance the propensity of accounting information to be managed is greater. Other evidence in this regard were found by Bowen, Rajgopal and Venkatachalam (2008), which identified that when a company does not have strong corporate governance, the discretionary attitudes of managers are broader, which leads to manage the results.

In this sense, one can understand the connection of earnings management with corporate governance. And, it is observed that there can be multiple reasons for managers to manage results, ranging from obtaining any advantage to fulfill their own interests to meeting the shareholder's perspective, which Coelho and Lima (2008) state that the expectations of



benefits, both in the perspective of the firm and shareholders, are linked to the shareholder value creation. In this context, Staub, Martin and Rao (2002) point out that the financial model of corporate governance, in which the investors shall ensure the return of the capital invested in the business, creates value for its shareholders.

In the case of measures of value creation for its shareholders, the economic value added (EVA®), which according to Damodaran (2012) is defined as a measure of surplus value created by investments or investment portfolios. Studies relating EVA® with the creation of value for its shareholders have already been carried out in the North American market (Mir & Seboui, 2008), in the Indian capital market (Patel & Patel, 2012), as well as the relationship between EVA® and the accounting numbers in South Africa's capital market (Wet, 2005). In Brazil, Staub et al. (2002), Araújo and Assaf Neto (2003) and sponsorship, Kayo and Kimura (2007). When it comes to earnings management, some studies have verified its relationship with corporate governance in Brazil (Ramos & Martinez, 2006, Barros Soares & Lima, 2013, Erfurth & Baloch, 2013).

However, the literature on the relationship between earnings management and the creation of shareholder value in companies with different levels of corporate governance practices in Brazil is scarce. On the above, this study sought to verify which are the existing relations between the accounting earnings management and the shareholder value creation in companies within or not the new market segment of corporate governance in the Brazilian stock market. So, we have the following problem: what is the impact of corporate governance on the relationship between earnings management and value creation in the Brazilian stock market? In this sense, we developed a study by a quantile regression analysis based on data from 232 companies, from 2011 to 2014, when we found that the evidence about the relationship between earnings management and proxies for shareholder value creation are significant, and that corporate governance is influential on these relationships.

2 LITERATURE REVIEW

2.1 Earnings Management

The practice of earnings management, also treated in the literature as manipulation of results, among other expressions, consists in modifying the calculation of accounting results in ways permitted by the legislation itself, in terms of accounting practices (Amat & Gowthorpe, 2010). That is, the gaps not met the standards, as well as accounting practices, leave room for the managers of subjectivities are used to make a kind of "drawing" the accounting result, reporting information handled in the financial statements.

According to Matsumoto and Padmanabhan (2007), earnings management is the formal manipulation of accounting results or operating activity, through discretionary choices of practices and accounting estimates with implications in the financial result and in accordance with the principles and accounting standards. In this sense, Damodaran (2012) notes that the entities usually administer their profits in the belief that they will be rewarded by the market, as a result of distributing profits more stable and above the forecast of financial analysts. However, for valuation purposes, the analysts reconcile accounting profits because they believe that such profits are influenced by accounting choices, not reflecting the real performance of the entity and at the same time, the value of the company also is handled.

With this in mind, Martinez (2001) States that the managers make discretionary decisions being stimulated by something that takes them to show a different result accounting of the true result of the entity, having consequences not only in the result, but also in the projected cash flow of the company. According to Dechow et al. (1998), the cash flow is a decomposition of the profit, which is a measure that summarizes the performance of the company, being the result of the sum of the cash flows and accruals. One



of the most common ways to detect the earnings management, among others, is by means of the accruals (Paulo, 2007). Therefore, Cupertino and Martinez (2008) Note that when profits are used as a means of measuring the performance of running a business, there are incentives for it to be inflated so that it generates an increase in the compensation of executives at the expense of carry-over real financial situation of the company and may even compromise their solvency.

So, it is worth quoting the accruals correspond to the difference between the accounting results of the period (which obeys the principle and accounting regime of competence) and cash flows (cash-basis), assuming the role of adjusting cash flows and the accrual basis (Paulo, 2007). The regime of competence is of great importance for investors because it neutralized the fluctuations of the firm, possessing more usefulness to the investor than the operating cash flow (Dechow & Skinner, 2000). Thus, it is possible to infer that, if in a company all operations of the period lead to payments and receipts in sight, the cash flows and the results would be coincident, so there would be no accruals.

However, as in the companies the differences between cash and accrual schemes are recurrent, the accruals require estimation and therefore are prone to errors, which can be intentional or unintentional, and the estimation errors reduce the ability of profits to reflect future cash flows (Dechow & Scharand, 2004). Unintentional errors, or non-discretionary, are so characterized when the results reported reflect the actual difference between the cash and accrual basis, i.e. the performance presented in the financial statements not suffered distortions.

On the other hand, the discretion of accruals (intentional errors) is tied to the manipulation of the results and their use reflects on measurement of net assets, because they are momentarily measured by unrealistic values (Paulo, 2007). That is, there are discrete actions of management of skew the results, reporting abnormal performance and so different from the economic reality of the entity. When accruals are handled, in addition to change the result of the current year, also changes the future result and therefore, it is expected that these results overloaded or underloaded are reversed at some point (Martinez, 2008). In this way, the interferences in the results affect the cash flows of the company and, consequently, the measures of value creation for its shareholders.

2.2 Creating Value for Shareholders

For the theory of finance, value creation for shareholders is the main purpose of a company (Perez & Malik, 2005). Investors, to apply resources in an entity, are usually interested in how the company can pay them in order to cover the opportunity cost of their investments. Second Damouri, Khanagha and Kaffash (2013), the opportunity cost of the shareholders is the minimum expected remuneration as a return to the investment made, justifying therefore the concept of the theory of finance.

So, from the maximization of their own value, the company can maximize shareholder value, also without the need for reinvestment. For Perez and Martins (2005) the good results of a company are consequences of management focused on creating value for its shareholders, in order to encourage new investors and lenders to invest in the company. Chao (2007) States that the external funding in the capital markets demands of managers the establishment of strategies for the creation of value, since, for shareholders, the funding of activities should come from outside to inside and not just from internal resources. In a study by 1000 and Seboui (2006) it was verified the existence of a positive relationship between the creation of value to the company and the shareholders, through the EVA, with the earnings management, in which the presence of some corporate governance mechanisms accentuated the earnings management, while others prevented.



In this sense, the EVA is shown as an important market tool, consisting of a measure of surplus value created by investments or investment portfolios (Damodaran, 2012), in which the creation of shareholder value in relation to the company by means of positive results that she gets. EVA is the difference between the operating profit earned by the company and the capital cost required on the capital invested, corresponding to a measurement of value added or destroyed. Mathematically, the EVA ® is calculated (Ehrbar, 1999):

$$EVA = NOPAT - (WACC \times TC) \quad (1)$$

In which, $EVA®$ is economic added value, $NOPAT$ is operating income after taxes on profit and before expenditure and revenue financial, $WACC$ is weighted average capital cost, which corresponds to average remuneration required by shareholders and TC is total capital employed by the shareholders and creditors of the company.

However, the EVA takes into consideration the sum of equity and of creditors. So, to convert the EVA in a measure only of equity, it should be used the Aggregate Economic Value of equity (Equity Economic Value Added I EEVA) or the Agg shareholder value, this way, positive EEVA indicates the creation of shareholder value, while negative EEVA their destruction. Consequently, operating income after income taxes and before financial expenses and income ($NOPAT$) should be replaced by net income and the cost of capital is required only by the (s) holder (s) on assets invested (equity), calculated as Damodaran (2012), according to Equation 2.

$$EEVA = Net Profit - (Cost of equity \times Invested asset) \quad (2)$$

As for the measurement of the cost of Equity (k_e), the literature usually have used the asset pricing model (*Capital Asset Pricing Model – CAPM*), according to what is shown in equation 3 (Damodaran, 2012).

$$R_j = R_f + \beta(R_m - R_f) \quad (3)$$

In which, R_f is the premium paid to the asset risk-free, β is the risk measure in relation to a standard portfolio and R_m is the expected return of the market.

In addition, the market performance of a company can be measured by their market value because the market variables are the leading steps to check its economic performance. Thus, one of the most commonly used measures like metric for return to the shareholder is the return on equity (ROE). This metric represents the company's performance in relation to the management of equity applied resources on entity, on behalf of the shareholder (Gabriel, Assaf Grandson & Run, 2005). So, examines the profitability from the perspective of the investor capital, relating the net profit after tax and interest costs with book value of capital investment, which corresponds to the net equity of the entity (Damodaran, 2012), as shown in Equation 4.

$$ROE = \frac{Net\ Income\ After\ Taxes\ and\ Interest\ Expenses}{Equity} \quad (4)$$

With respect to the return required by shareholders, Brennan (1970) suggests that there is a relationship between the Dividend Yield (DY), or Dividend Income, which represents the value distributed as dividends on the value of action, either as dividends or interest on own capital (INTEREST). This is the return required by shareholders, in that the greater the



dividend yield, the greater the return required by shareholders. Thus, the DY is estimated in equation 5.

$$DY = \frac{\text{Distributed Dividends}}{\text{Stock Price}} \quad (5)$$

In this way, it becomes imperative that the interests of shareholders are respected, especially with regard to the determination and distribution of results. Therefore, the corporate governance stands out in minimizing conflicts of interest between managers and shareholders.

2.3 Corporate Governance

According to Jensen and Meckling (1976), both the shareholders and managers try to maximize their utility; there is a good reason to believe that the managers will not always act according to the interests of the owners of the companies (shareholders). However, there are ways that can be used to decrease the friction generated by this conflict of interest.

For this reason, bodies such as the Securities and Exchange Commission (SEC) in the United States and the Brazilian Securities Commission (CVM) in Brazil recommend companies adopt best practices of corporate governance. Confirming this, Gompers, Ishii and Metrick (2003) attest that in some markets companies that adhere to these practices can get a differentiated value in the market. In this sense, the SEC (2002) defines corporate governance as a set of practices that aims to optimize the performance of a company to protect all stakeholders such as investors, employees and creditors, facilitating access to venture capital firms.

In accordance with the foregoing, the BM&FBOVESPA search encourage businesses to adopt corporate governance practices, possessing different segments of stock trading, to which interested companies can join, providing different levels of disclosure (disclosure), with the aim also of stimulating both the interest of investors as the valuation of companies. In Brazil, Silva, Reis and Lacia (2012) conducted a study to analyze the creation of shareholder value between each level of corporate governance, in order to verify the existence of different medium to create value to the shareholders in different segments, and found that their evidence did not show statistically significant relationships, inferring the level of governance in which the company was inserted not caused differentiation in creating value for its shareholders.

However, by adopting corporate governance mechanisms, for an increase in the supervision of managers of enterprises, eventually can occur the inhibition of earnings management. In this sense, according to Xie, Davidson and Daiya (2003), factors such as the presence of an independent Board of Directors and the Audit Committee activity are important to prevent the managers of companies to engage in earnings management activities.

Different studies corroborate with those results, showing that management of results can be limited by the use of corporate governance practices (Beasley, 1996, Klein, 2002). Ramos and Martinez (2006) highlight that weakened corporate governance increases the propensity to earnings management. This is ratified by Barros et al. (2013), when it was identified that the intensity of management in companies that had attributes of corporate governance was smaller than in companies that had less attributes. In this context, it is believed that the implementation of corporate governance practices in organizations can lead to lower levels of management and that, therefore, these practices need to be well structured to ensure its benefits.

In addition, John and Senbet (1998) present evidence that the features of the company's corporate governance practices, such as the independence of the Board of Directors,



increases the level of surveillance on low-performance managers, leading to its replacement, thus causing greater value creation for shareholders. Already Her Door, Lee-de-Silanes, Shleifer and Vishn (1998) indicate a positive relationship between aspects that enhance the protection of investors and the creation of value. As well as Kraakman, Armour and Enriques (2004), highlighting that the corporate governance aims to contribute to the maximization of aggregate wealth of shareholders.

3 Methodological Procedures

3.1 Data Collection and Sample

The data needed for this research was collected in the database of the Economatica ®, the website of the Central Bank of Brazil (BACEN) and BM & FBOVESPA, the period from 2011 to 2014. The population of this research is formed by the publicly traded companies that have shares traded on BM & FBOVESPA, being selected the most liquid of each company. Were excluded from the sample companies that did not have at least one of the required information for the estimation of the variables presented in the estimated equations, as well as those which had Equity NET (PL) negative, as this could distort some performance indicators, such as ROE. Thus, a sample of 232 companies over the 5 years analyzed.

For the calculation of the equation 2 (EEVA), using the CAPM for the measurement of the cost of equity (k_e). To find the value of k_e , the annual rate of savings as the risk-free return (R_f), with a view that is guaranteed by the Credit Guarantee Fund and it is more akin to the free return of risk in other markets, since the SELIC rate is considered too high by international standards and may cause negative returns. As a measure of the risk of the asset in a standard portfolio, we used the beta of each company and the Ibovespa index as the expected return of the market (R_m), using the nominal closing index score of the Ibovespa.

3.2 Variables and Model

As proxy management detection results, in this work we used the estimation of the total discretionary accruals and non-discretionary, as described by Dechow, Hutton, Kim e Sloan (2012) in Equation 6:

$$AcT_{it} = AD_{it} + AND_{it} \quad (6)$$

In which, AcT_{it} is the total accruals for every company i at time t , AD_{it} are discretionary accruals and AND_{it} are non discretionary accruals.

For the purpose of measuring the total accruals we used items from the balance sheet (BS), which according to Paulo (2007) is a commonly used approach, considering that the elements of the accruals of revenue and expenditure (present in the statement of income for the year-DRE) are linked to mutations occurring in the working capital accounts (present in BP). This composition is described in Equation 7.

$$AcT_{it} = \frac{(\Delta AC_{it} - \Delta Disp_{it}) - (\Delta PC_{it} - \Delta Div_{it}) - DepA_{it}}{AT_{it-1}} \quad (7)$$

In which, AcT_{it} is the total accruals for every company i at time t , ΔAC_{it} is the variation in current assets between $t-1$ and t , $\Delta Disp_{it}$ is the variation of cash between $t-1$ and t periods, ΔPC_{it} is the variation in current liabilities between $t-1$ and t , ΔDiv_{it} is the variation of loans and short-term financing between $t-1$ and t periods, $DepA_{it}$ is the depreciation and amortization and AT_{it-1} is the total assets of firm i in period $t-1$.



Still, as Dechow et al. (2012), for the estimation of earnings management used the regression model for the detection of discretionary accruals, as Equation 8.

$$AcT_{it} = \alpha_1 + \alpha_2 \left(\frac{1}{AT_{it-1}} \right) + \alpha_3 (\Delta RL_{it} - \Delta CR_{it}) + \alpha_4 (AID_{it}) + \alpha_5 (AcT2_{it-1}) + \varepsilon_{it} \quad (8)$$

In which, AcT_{it} is the total accruals for every company i in period t , weighted by total assets at the end of period $t-1$, AT_{it-1} is the total assets in the period $t-1$, ΔRL_{it} is the variation in net income between $t-1$ and t , weighted by total assets in period $t-1$, ΔCR_{it} is the variation in accounts receivable (clients) between periods $t-1$ and t weighted by total assets in period $t-1$, AID_{it} is the sum of fixed and deferred assets in period t , weighted by total assets in period $t-1$, $AcT2_{it-1}$ is the total accruals in period $t-1$, weighted by total assets in $t-2$ period, $\alpha_{1...5}$ are the regression coefficients and ε_{it} its error term.

The total accruals (AcT), presented in Equation 6, which correspond to the dependent variable of equation 8, were first calculated by Equation 7. For the estimation of discretionary accruals (ε_{it}), in equation 8, using the proposed model by Dechow et al. (2012). The study by Dechow et al. (2012) showed that this model increased the power of reducing the test failures that are caused by wrong specification in the samples between a broad set of economic characteristics, caused by the inclusion of correlated non-discretionary accruals.

Most of the research on earnings management has used the method of ordinary least squares (OLS) to estimate the discretionary accruals. However, in researches with accounting data it is common to find two types of problems, as pointed by Ohlson and Kim (2014): (i) extreme values that tend to influence the results, and (ii) heteroscedasticity error terms, which may lead to inefficient and estimates the need for scale variables. This is ratified by a prior analysis through the OLS, in this research, which identified problems of autocorrelation, through the application of the Wooldridge test, which rejected the null hypothesis of no autocorrelation, as well as the problem of heteroscedasticity, because the Wald test rejected the null hypothesis of no heteroscedasticity.

Thus, we used quantile regression for the estimation of discretionary accruals, as pointed by Ohlson and Kim (2014) this model is robust to the problems encountered, as it examines relations based on conditional quartiles, thereby minimizing, the weights of the outliers in the variables, in addition to minimizing the sum of the weighted absolute waste, whose weights are also asymmetrical. With that, the errors introduced by quantile on average, according to Equation 8, were captured and thus used as a proxy for earnings management (GR), as shown in Equation 9, in a consonant manner with the reviewed literature.

As regards the relationship between the creation of shareholder value and earnings management, according to Equation 9, EEVA variables, ROE and DY, as mentioned in the literature review. In turn, the size of the total assets (TAM) was included as a control variable due to its capability to exercise some influence over the performance variables (EEVA, ROE and DY) and, especially, about the earnings management (GR), as Gu et al. (2005). Finally, as a proxy of good corporate governance (CG), we used for the presence or absence in the differentiated "New Market", highest level of corporate governance established by BM&FBOVESPA, seeking to verify that when companies have more governance mechanisms they tend to decrease the earnings management and maximize value creation for their shareholders.

$$GR_{it} = \alpha_1 + \alpha_2 EEVA_{it} + \alpha_3 ROE_{it} + \alpha_4 DY_{it} + \alpha_5 TAM_{it} + \alpha_6 GC_i + \alpha_7 GC_i \times EEVA_{it} + \alpha_8 GC_i \times ROE_{it} + \alpha_9 GC_i \times DY_{it} + \alpha_{10} GC_i \times TAM_{it} + \varepsilon_{it} \quad (9)$$



In which GR_{it} is earnings management for the whole company i at time t , $EEVA_{it}$ is the economic value to shareholders, ROE_{it} is the return on equity, DY_{it} is dividend yield, TAM_{it} is a dummy variable to indicate the size of the company through the median of total assets, and one for when the $aT \geq \text{median}$ and 0 for when the $aT < \text{median}$ GC_i is the dummy variable to indicate corporate governance, 1 to when the company i is in the "New Market" and 0 for when not, $\alpha_{1...10}$ are the regression coefficients and ε_{it} its error term.

The regression model used to achieve the objective proposed by this study, using equation 9, was the quantile regression, since the data presented evidence of heteroscedasticity when the model estimated by Ordinary least squares. To this end, by the quantile regression using a set of conditional quartiles equally spaced (Hao & Naiman, 2007), can best represent the relationship between the earnings management (GR) and the shareholder value creation (EEVA), in addition to the influence of corporate governance (CG).

4 RESULTS

To analyze the relationship of earnings management with the shareholder value creation and corporate governance of companies, we estimated a quantile regression model based on the variables presented in Equation 8. Table 1 presents the estimated model statistics based on median ($\tau = 0.50$) and with robust standard errors, you can check that all the variables of the model were significant to 1%. Therefore, the error terms have been taken from the equation 8, as Dechow et al. (2012), which represent the discretionary accruals, taken as a proxy for earnings management, indicating the possible discretionary behavior of the managers of the analyzed companies.

Table 1 - Estimate of accruals using quantile regression. 2011-2014.

Variables	Coefficient [†]	Standard Dev	T-statistic	p-valor
Constante	-0,0156	0,0040	-3,9065***	0,0001
1/AT	-1078,7500	172,6040	-6,2499***	0,0000
$\Delta RL - \Delta CR$	0,0660	0,0162	4,0649***	0,0001
AID	-0,0304	0,0074	-4,1194***	0,0000
AcT2	0,0002	0,0000	22,0501***	0,0000
AcT Median	-0,0237	Standard deviation of the AcT		0,0998
Sum of the absolute waste	50,1203	Sum of the square residues		7,7043
Likelihood Log	847,1229	Akaike criterion		-1684,2460
Schwarz criterion	-1660,8670	Hannan-Quinn Criterion		-1675,2610

$$\text{Equation 8: } AcT_{it} = \alpha_1 + \alpha_2 \left(\frac{1}{AT_{it-1}} \right) + \alpha_3 (\Delta RL_{it} - \Delta CR_{it}) + \alpha_4 (AID_{it}) + \alpha_5 (AcT2_{it-1}) + \varepsilon_{it}$$

Notes: AcT are the total accruals of company i in period t , weighted by its total assets at the end of the period $t-1$; $1/AT$ is the inverse of the total assets of the company (i) at the end of period $t-1$; $\Delta RL - \Delta CR$ is the difference between the net revenue of the company (i) between periods $t-1$ and t , weighted total assets at end of period $t-1$, and the variation of accounts receivable (accounts) of the company (i) between periods $t-1$ and t , adjusted total assets at end of period $t-1$; AID is the sum of fixed assets and deferred assets of company i in period t , weighted by the total assets at the end of the period $t-1$; AcT2 corresponds to total accruals of company i in period $t-1$, weighted by its total assets at the end of the period $t-2$. ** corresponds to the significance of 5% and 1% ***. Estimated with robust standard errors.

Table 2 shows the descriptive statistics of the variables analyzed in Equation 9. The discretionary accruals (GR) showed average 0.004122 and EEVA, weighted by the total assets of the companies, average value of 0.048664. As regards the return on equity (ROE), its annual average in the period examined was about 4.65%, while the dividend yield (DY)



medium was 3.73%. It is also possible to observe that about 62.55% of analyzed companies are sized (TAM) greater than or equal to the median of the sample and that approximately 49.18% of these companies were listed on the New Market segment of corporate governance (CG).

Table 2 - Descriptive Statistics of the Analyzed Variables. 2011-2014.

Variable	Average	Median	Standard Dev	Minimum	Maximum
GR	0,004122	0,000000	0,098543	-0,371340	0,692323
EEVA	0,048664	0,039770	0,108928	-0,428017	0,589729
ROE	0,046518	0,089565	0,904277	-23,078900	2,394270
DY	0,037268	0,022400	0,058216	0,000000	0,636200
TAM	0,625473	1,000000	0,484306	0,000000	1,000000
GC	0,491803	0,000000	0,500248	0,000000	1,000000

Notes: GR is the earnings management, represented by discretionary accruals; EEVA is the creation of shareholder value; ROE return on equity; DY is the dividend yield; TAM is the size, and it takes 1 when the total assets of the company is equal to or higher than the sample median and 0 otherwise; and GC corresponds to the measurement of corporate governance proxy, in that 1 assumes that the company i is listed in the "New Market" and 0 otherwise.

Table 3 demonstrates the correlation between variables, earnings management matrix, shareholders value creation and corporate governance. Below the diagonal ones (1) 's matrix of Spearman and above it the matrix of Pearson. As the distribution of these variables was not normal, we analyze the matrix of Spearman.

It may be noted that the earnings management (GR) has positive correlation and significant variables of value creation, being with the EEVA (0.109) and ROE (0.111), which ratifies the literature (1000 & Seboui, 2006, Coelho & Lima, 2008, Cupertino & Martinez, 2008). However, the relationship with the dividend yield (DY) was not significant, as well as their relationship with the size (TAM) of the total assets of the companies and their listing in the new market of corporate governance (CG). We also note a positive and significant relationships between proxies of value creation, and EEVA x ROE (0.718), EEVA x DY (0.149) and ROE x DY (0.213), which ratifies the use of proxies as indicative for value creation.

Table 3 - Correlation Between the Investigated Variables (Spearman and Pearson).

	GR	EEVA	ROE	DY	TAM	GC
GR	1	0,047	0,038	-0,059	0,059	-0,022
EEVA	0,109***	1	0,178***	0,092***	0,087**	0,094***
ROE	0,111***	0,718***	1	0,061	0,072**	0,06
DY	-0,009	0,149***	0,213***	1	-0,026	-0,194***
TAM	0,033	0,131***	0,120***	-0,013	1	0,167***
GC	-0,001	0,100***	0,062	-0,215***	0,167***	1

Notes: GR is earnings management, EEVA is the creation of shareholder value, ROE net return on equity, DY is the dividend yield, TAM is the size and GC is corporate governance. Below the main diagonal with values 1 (a), is evidenced by Spearman correlation matrix and, above, the Pearson correlation coefficient. ** Significant at 5% and is *** the 1%.

In table 4 are presented the results of the relationship between the output management, creating value for its shareholders and the effects of corporate governance on these companies. For that, considering the outliers in the sample and the heteroscedasticity identified were estimated 3 (three) quantile regression models, quartiles 0.25 ($\tau = 0.25$), 0.50 ($\tau = 0.50$) and 0.75 ($\tau = 0.75$). All models were estimated on the basis of Equation 9 and with robust standard errors.



In General, the relations of significance alternate as modified the quantile function, which can be explained by the heteroscedasticity of the variables. For the estimated model based on quantile 0.25 ($\tau = 0.25$), it should be noted that, in addition to the constant, corporate governance (CG) presented negative and significant relationship with the earnings management (GR) (-0.0404), indicating that the improvement in the governance practices of companies has reduced the earnings management practices, ratifying Dechow and Skinner (2000), Bowen, Rajgopal and Venkatachalam (2008) and Lin and Hwang (2010). Even in this model, the interaction of corporate governance with the size of the company presented positive and significant relation (0.0354). With this, it is possible to infer that, among the largest companies that showed reduced volume of earnings management (0.25 quantile), the listing in the differentiated corporate governance segment "new market" indicated increased earnings management. One explanation for this result can be due to the fact that companies, even though they were under stricter governance rules, they feel free to make "small" manipulations to affect their results. One should not, therefore, rule out the possibility of these accruals are related to licit choices that companies can perform.

In this perspective, the presented evidence goes against Ramos and Martinez (2006) and Barros et al. (2013), when these authors note that companies with poor corporate governance managed less its results. According to these authors, as well as highlighted by Mir and Seboui (2006), some mechanisms of governance could solve the earnings management issue, while others could increase such manipulation. This study, it is reasonable to say that the mechanisms that decrease the manipulation if apparent, as well as mentioned by Dechow and Skinner (2000) and Bowen, Rajgopal and Venkatachalam (2008).

For the estimated model based on quantile 0.50 ($= 0.50$), it was found that the shareholder value creation presented positive and meaningful relationship with the management of results, both in the EEVA (0.0367) and ROE (0.0441). These results confirm the literature taken as base (Mir & Seboui, 2006, Coelho & Lima, 2008, Cupertino & Martinez 2008). Second Mir and Seboui (2006), for example, the relationship between creating value for its shareholders and to the company and the earnings management should be positive and significant. This suggests that investors who owned shares of companies with greater earnings management had, too, greater value creation to its riches, being rewarded for that risk (whether to a greater or lesser proportion).

As regards company size (TAM), their relationship was negative and significant (-0.0083), ratifying Gu et al. (2005), as well as the interaction of governance with the dividend yield (GC x DY) (-0.2611), unexpectedly, indicating that companies listed on Brazil's New Market have inverse relationship between GR and the DY. This result can be explained by the negative relationship between GC and DY as table 3 negative correlation, suggesting the New Market companies distributed smaller proceeds to its shareholders in the analysis period. For this reason, his negative relationship with the earnings management.

The last model was based on the 0.75 quantile ($= 0.75$). In addition to the constant, which had positive and significant relation (0.0411), showed significant relation to the dividend yield (-0.0453), and negative. This result is contrary to the related literature (Mir & Seboui, 2006, Coelho & Lima, 2008, Cupertino & Martinez, 2008). Just like the previous explanation, it should be noted that this result may be suffering negative relationship between influence and DY and, finally, the interaction between governance and EEVA (GC x EEVA) presented positive and significant relation (0.0932), confirming the findings of Mir and Seboui (2006), and Lima (2008) and Cupertino and Martinez (2008). The other variables did not show statistically significant results were not objects of analysis.

Table 4 - Relationship of the earnings management with value creation and governance. 2011-2014.



Variables	Quartile 0.25		Quartile 0.5		Quartile 0.75	
	Coefficient +	t-statistic	Coefficient +	t-statistic	Coefficient +	t-statistic
Constant	-0,0381	-4,1427***	0,0008	0,1704	0,0411	5,0923***
EEVA	0,0442	1,0719	0,0367	3,3227***	0,0369	0,8551
ROE	0,0033	0,1373	0,0441	20,1764***	0,0067	0,3660
DY	-0,0426	-0,2498	0,0004	1,3495	-0,0453	-2,8326***
TAM	0,0030	0,3026	-0,0083	-2,1455**	-0,0056	-0,6372
GC	-0,0404	-2,9616***	-0,0100	-1,0477	-0,0028	-0,2197
GC x EEVA	0,0550	0,8989	0,0712	1,2812	0,0932	1,6721*
GC x ROE	0,0286	0,8606	0,0042	0,2699	-0,0135	-0,5471
GC x DY	-0,0604	-0,3245	-0,2611	-7,2397***	-0,2532	-1,3217
GC x TAM	0,0354	2,4363**	0,0157	1,6365	0,0116	0,8445
GR Median		-1,6E-12		-1,6E-12		-1,6E-12
Sum of the absolute waste		57,4530		49,3325		58,1319
Likelihood Log		805,3595		859,6864		719,1772
Schwarz criterion		-1543,9610		-1652,6150		-1371,5960
GR x Dev		0,0985		0,0985		0,0985
Sum of		9,1655		7,6346		8,5633
Akaike criterion		-1590,7190		-1699,3730		-1418,3540
Critério Hannan-Quinn		-1572,7490		-1681,4030		-1400,3850

Equation 9: $GR_{it} = \alpha_1 + \alpha_2 EEVA_{it} + \alpha_3 ROE_{it} + \alpha_4 DY_{it} + \alpha_5 TAM_{it} + \alpha_6 GC_i + \alpha_7 GC_i \times EEVA_{it} + \alpha_8 GC_i \times ROE_{it} + \alpha_9 GC_i \times DY_{it} + \alpha_{10} GC_i \times TAM_{it} + \varepsilon_{it}$

Notes: GR is the management of results; EEVA is the creation of shareholder value; ROE return on equity; DY is the dividend yield demanded by shareholders; TAM is the median of the total assets of the companies, in which 1 corresponds to the companies present AT greater than 0 and less than the median median; GC matches a proxy for measuring of corporate governance in firms, in which 1 is assumed for when the company (i) is listed in the "Novo Mercado", in period t and 0 otherwise. * significant at 10%, is * 5% * and * ** the 1%. Estimated with robust standard errors.

In this way, it is possible to observe that, in General, there was a positive relationship between the earnings management and proxies for shareholders value create value, with the exception of dividend yield, while the corporate governance presented negative effect on these relationships, however, a limited way, being significant only in 0.25 quantile of the analysed sample. The Table 1 summarizes the expected relationships and found, based on literature and the analysis carried out. One realizes that, with the exception of the dividend yield, all other relationships if confirmed, in at least one of the analyzed quartiles.

Chart 1 - Earnings Management Relationship with the Studied Variables. 2011-2014

Independent Variable	Reference	Expected Relationship	Found Relationship
EEVA	Mir e Seboui (2006), Coelho and Lima (2008) and Cupertino and Martinez (2008).	+	+
ROE		+	+
DY		+	-
TAM	Gu <i>et al.</i> (2005).	-	-
GC	Dechow and Skinner (2000), Bowen, Rajgopal and Venkatachalam (2008) and Lin e Hwang (2010).	-	-

Notes: in which, EEVA is the creation of shareholder value, ROE is the return on shareholders ' equity, DY is the dividend yield, TAM is the size and GC is corporate governance.

From these results, based on Equation 9, we realize that the estimated regression models (quantile) offered a more accurate view of how the data is distributed throughout the



analysis, with robust results. It is possible to realize that although they have not presented statistical significance, the relationships between the variables change in quantile function for quantile, change of signal. You can't say that these relationships are different from zero, because there was no statistical significance. But, combined with the existence of outlier of heteroscedasticity in the variables and the significance of relations in quartiles, this phenomenon requires the use of a robust estimation model to these problems, frequent analysis of accounting data, such as point Ohlson and Kim (2014).

5 CONCLUSION

The relationship between creating shareholder value and earnings management, linked to insertion of corporate governance in firms, is still a subject which is little explored in the Brazilian literature. Surveys show that investors tend to fix their attention on the company's results, which may lead them to danger, since the results of the companies may have been manipulated, leading investors to make decisions based on information that might not match the reality of the company. And this is an inherent risk in the market and to the ones who are part of it, so the relevance of studies to aid in the understanding of this phenomenon.

With the aim of investigating what are the existing relations between the accounting earnings management and the creation of shareholder value in companies within or not in the new market segment of corporate governance in the Brazilian stock market, this study has launched a review of these relationships through quantile regressions, in view of the intrinsic characteristics of the companies and of the analyzed variables. This made it possible to achieve more consistent and robust results, given that analyses were performed by quantiles, or parties, identifying relationships according to the magnitude of the parsed data.

Generally speaking, the results ratified the previous evidence in the literature of finance. Having the variables EEVA, ROE and dividend yield as proxies for shareholder value creation, you can realize that in at least a quantile, EEVA and ROE were positive and significantly related to earnings management, indicating that companies with greater manipulation of results also tend to be those that offer greater value creation. As this study didn't analyze the relationship of causality, it is not possible to say what causes what, but, just, that there are positive relationship. This denotes that investors and regulators stay tuned for illicit financial choices, with the purpose to deceive investors.

With respect to corporate governance, we found that its relationship with the earnings management was negative and significant, as the relevant literature. This indicates that companies with best governance practices tend to have less manipulation of results. However, it is salutary to note that, when it examines the relationship of some proxies to create value and results management in companies listed on the new market for evidence, although limited, reverse relationships. This can, in General, due to the fact that companies with corporate governance practices present smaller risks to investors and therefore lower returns. It is noted, however, that this reflection is just an abstraction of the authors, since our study has not examined this phenomenon.

Finally, the results of this study represent contributions to the literature by presenting empirical and robust evidence on the relationship between the accounting earnings management and the shareholder value creation, considering the corporate governance practices of companies in Brazil. However, these results are limited to the sample analyzed, without the intention of being taken as definitive answers to the investigated problem. However, such limitations do not invalidate this study, in view of their methodological rigor and relevance of the empirical evidence presented.

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