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Corporate Sustainability and Corporate Governance: An Analysis of the relation between the ISE of BM&FBOVESPA and the Compensation of Brazilian Company Managers

Abstract

The objective in this article was to identify the influence of corporate sustainability on the compensation of the managers of Brazilian non-financial companies listed on BM & FBOVESPA from 2009 to 2013. The study of manager compensation and corporate sustainability arouses reflections on the problems arising from the Agency Theory, and also permits the visualization of stakeholder theory and the search for value in the long term. To develop this study, it is expected that the companies that are listed in the Corporate Sustainability Index (ISE) of BM & FBOVESPA will grant better remunerations to their managers. Thus, the regression method with panel data, with fixed effects estimation, was used to test the relationship between the proposed variables. As the main results, we noticed a positive and statistically significant relationship between managers' total remuneration with the ISE, the corporate governance quality variable (companies listed in the Novo Mercado) and the market-to-book value. In addition, a negative relation was observed between the total remuneration of the managers and the volatility of the returns. Thus, it can be inferred that the more sustainable companies tend to grant higher remunerations to their managers, which corroborates the central hypothesis of the research and the assumptions of the Stakeholder theory.

Key words: Corporate Sustainability. Corporate Governance. Manager Compensation. Stakeholder Theory.

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1. Introduction

Due to the changes perceived in the globalized environment, organizations are increasingly looking for ways to become more competitive and thus achieve better performance. In this sense, the role of the capital market is highlighted as a source of resources that are converted into productive investments (Correia, 2008). In this respect, the importance of corporate governance and corporate sustainability as good practices is highlighted, which tend to enhance the quality and continuity of the business. This is justified because corporate governance corresponds to a set of relationships among the company's management, its board of directors and other stakeholders, in order to provide a structure that enables organizations to achieve economic efficiency and grant greater confidence to investors (OECD, 2004).

It is known that corporate sustainability, understood as a set of activities that involve the relationship of the company with the environment, the economy and society, based on the tripod by Elkington (2001), enables improvements in the image and reputation of companies, advantageous funding and greater competitive advantage (Garcia & Orsato, 2013). In this sense, it is understood that it is fundamental for companies to know how to define their objective function in order to achieve their purposes. For this reason, Jensen (2001) presents the illuminated Stakeholder theory as an alternative, according to which organizations need to consider the essential interests of their stakeholders, in view of the goal of long-term value maximization.

Concern about the reconciliation of different interests is also reflected in the Agency theory. Because there is the inevitable separation between ownership and control, individual cooperation activities can generate conflicts (Jensen & Meckling, 1976). According to Murphy (1998), one way to solve this agency conflict between managers and shareholders is to grant mechanisms to encourage managers, corresponding to salaries, annual bonus plans, stock option plans, among others. Thus, the wealth of an executive is linked to the goal of maximizing shareholder wealth.

With respect to corporate sustainability, it is generally appreciated by sustainability indices of the different stock exchanges around the world. These indices follow Elkington's (2001) proposal. Thus, the United States Dow Jones Sustainability Index (DJSI); FTSE4Good in London; JSE in Johannesburg, South Africa; and the Corporate Sustainability Index (ISE) in Brazil stand out. BM & FBOVESPA's ISE aims to provide for an investment environment compatible with the demands of the sustainable development of the contemporary society.

As Ricart, Rodriguez and Sanchez (2005) argue, a lot of theoretical research involves Corporate Governance and Sustainable Development, but no empirical work has been found that deals with the relationship between these themes. In addition, when considering the different mechanisms of corporate governance, such as, for example, the board of directors; ownership structure and control; protection of minority shareholders; transparency; and compensation of managers, no studies were found that tested the relationship of any one (or all) with the corporate sustainability indices.

Considering this gap observed in the literature on the subject, the research problem in this study is: what is the influence of corporate sustainability on the compensation of managers of Brazilian non-financial companies listed on BM&FBOVESPA? Based on these perspectives, this study presents the following hypothesis: H1 - The companies listed in the ISE of BM&FBOVESPA grant greater compensation to their managers. Thus, in view of the research problem and hypothesis presented, the objective in this study is to investigate the influence of corporate sustainability on the compensation of managers of Brazilian non-financial companies listed on BM&FBOVESPA in the period from 2009 to 2013.

It should be emphasized that this paper presents theoretical contributions, since it proposes the analysis of the relationship between corporate sustainability and compensation of managers, a relationship that involves, respectively, Sustainability and Corporate Governance, which had not been considered previously under this approach. In addition, a practical contribution is provided, since we intend to evaluate if the more sustainable companies, which seek to generate value in the long term, also aim for the alignment of interests among the different stakeholders (in this case managers and shareholders), through greater compensation for their managers.



This research is structured in five parts, of which this section involves the research problem, the hypothesis and the objectives. Part 2 presents the theoretical structure. Part 3 discusses the methodological aspects of the study, the variables analyzed, the methods used in the statistical analysis, as well as the estimated model in the research. Section 4 presents and analyzes the results and, in part 5, the conclusions resulting from the analysis of the theoretical basis on the main themes and empirical treatments are formulated.

2. Theoretical Framework

2.1 Manager Compensation

In order to understand the emergence of good corporate governance practices, which involve Corporate Governance mechanisms, among which this work focuses on the analysis of compensation of managers, first, we need to understand the emergence of Agency theory. Jensen and Meckling (1976) argue that the establishment of contracts causes the agent to engage in activities for the principal, who assumes the commitment to remunerate the agent. Because of the inevitable separation between ownership and control, however, the activities of individuals are susceptible to various types of conflicts, which have been termed "Agency Conflicts."

Even though Agency Conflicts are different between countries, it is observed that corporate governance has sought to improve transparency; strengthen independent management monitoring, the alignment between the principals and the agents, shareholders' rights; and impose financial responsibilities on agents and administrators (Wong, 2009). Thus, in the Brazilian case, the following corporate governance mechanisms can be highlighted: board of directors; ownership and control structure; protection of minority shareholders; transparency of information published; and compensation of managers (Correia, 2008). Among the mechanisms cited, managers' compensation corresponds to one of the ways to solve the Agency Conflict discussed since, as Murphy (1998) states, the wealth of an executive is linked to the objective of maximizing shareholder wealth.

One of the seminal works in this respect is that of Jensen and Murphy (1990), who sought to show how executives have been paid and observed that, on average, payments are not made based on corporate performance and the remuneration policy is one of the most important factors for the success of organizations as, in addition to being related to the behavior of executives, it also determines the type of executive that is attracted by the companies. Thus, three basic policies are outlined that enable the Chief Executive Officer (CEO) to maximize the value of companies: a) enable executives to be substantial owners; B) structure salaries, bonuses and stock options to generate large rewards when there is superior performance and punishments for poor performance; and c) use the threat of resignation in case of poor performance (Jensen & Murphy, 1990).

In the international and Brazilian literature, although it has been observed that the organizations that perform better guarantee better compensations to their executives (Barontini & Bozzi, 2008, Conyon & He, 2011, Kaplan, 2012, Suherman, Rahmawati & Buchdadi, 2011), the opposite relationship was also verified, that is, situations in which the compensation variables presented a negative relation with the organizational performance (Balafas & Florackis, 2013; Beuren & Beck; Silva, 2012). Therefore, it can not be inferred that the fact that the company performs well guarantees greater compensation to its managers and vice versa.

In a complementary way, Conyon and He (2011) analyzed publicly traded companies in China during the period from 2001 to 2005. The results showed that executive compensation as measured by the logarithm of total compensation (wages and benefits) was positively related with the performance of companies, this being measured by the return of the shares in the last twelve months, and also by the Return on Total Assets (ROA). There was a greater relationship between the payment of managers and the performance of organizations in companies with independent directors and, in state-controlled companies that had concentrated ownership, the incentives were smaller.



As observed in the international studies, some Brazilian researchers sought to understand the influence of corporate governance characteristics on the remuneration of executives. It is worth noting that most studies present results that show a positive and statistically significant relationship between these variables (Camargos & Helal, 2007; Correia, Amaral & Louvet, 2014; Farias, 2012; Pinto & Leal, 2013; Silva, 2010; Victor & Terra, 2009), but there is evidence that corporate governance does not always positively influence managerial benefits (Funchal & Terra, 2006; Sampaio, 2009).

In general, Brazilian research on this topic investigates how corporate performance influences the benefits paid to managers (Beuren, Beck & Silva, 2012; Camargos & Helal, 2007; Dalmacio, Rezende & Slomski, 2009; Funchal & Terra, 2006) and how the compensation of managers impacts the market value or the accounting performance of companies (Carvalhal da Silva & Chien, 2013, Krauter, 2013; Perobelli, Lopes & Silveira, 2012; Sampaio, 2009; Sonza, 2012).

Especially, Funchal and Terra (2006) considered a sample of 67 companies from four countries (Argentina, Brazil, Chile and Mexico) in the year 2002 and used cross-sectional regression analysis. Thus, they noted that the company's performance, expressed by the market value and by Tobin's Q and corporate governance, are not influential variables in executive compensation, which was measured by the logarithm of total compensation (wages and benefits). Nevertheless, they found a positive and significant relationship between the size of the company and the compensation of managers, which leads to the conclusion that, in larger companies, executives tend to be better paid.

2.2 Corporate Sustainability

In order to understand corporate sustainability, we depart, in principle, from the interpretation of Stakeholder theory. According to the authors Freeman and McVea (2001), managers formulate and implement their strategies to satisfy their stakeholders, rather than maximizing the rights of a single group to the detriment of others. Jensen (2001), however, proposes that organizations meet the most relevant demands of stakeholders, but whose objective function is to maximize value in the long term. In this context, corporate sustainability is visualized, involving the economic, social and environmental aspects. Thus, it is understood that corporate sustainability encompasses a set of economically viable, socially just and ecologically correct practices (Elkington, 2001).

The development of corporate sustainability is associated with the changes observed in the capital market, due to the greater democratization and transparency in the circulation of information (Henderson, 2007). Some historical events marked this development, with particular emphasis on some catastrophes, such as Bhopal in India in 1984 and the Chernobyl nuclear accident in 1986 in Europe. After this kind of episodes, the Brundtland Report was formulated in 1988, which launched sustainability concepts, thus altering some business practices in the world.

As a consequence of further global scandals, such as the collapse of economic groups (Enron, Union Carbide, WorldCom and Tyco), investors began to be wary of the effectiveness of financial results (ISE, 2010). Thus, as from the creation of the DJSI, other indexes appeared, being: FTSE4Good, created in London in 2001; JSE, established in Johannesburg, South Africa in 2003; and ISE, created in 2005 in Brazil. The ISE works as a tool for comparative analysis of the performance of companies listed on BM&FBOVESPA, under the corporate sustainability aspect, and measures the average return of a stock portfolio of publicly traded companies, with a portfolio of no more than 40 companies.



In order to integrate the ISE, it is necessary that the shares cumulatively meet the following criteria: a) be one of the shares with the highest marketability index, calculated in the twelve months prior to the beginning of the revaluation process; B) having been traded in at least 50% of trading sessions in the twelve months prior to the beginning of the revaluation process; and c) meeting the sustainability criteria endorsed by the ISE Board (ISE, 2010). The evaluation method is based on a questionnaire, which contemplates seven dimensions: nature of the product; general; corporate governance; social; economic-financial; environmental; and climate change. Each of these dimensions has its specific evaluation criteria, so that ISE is more than an indicator of financial return, that is, it is capable of translating sustainable management.

It is noteworthy that many Brazilian studies on corporate sustainability adopt BM&FBOVESPA ISE as a variable. In some of them, it could be observed that better sustainability practices are associated with better accounting performance (Lameira, Ness Jr., Quelhas & Pereira, 2013; Nunes, Teixeira, Nossa & Galdi, 2010), generally measured by ROA; higher market values (Carvalhal & Tavares, 2013; Lameira et a., 2013; Rossi Jr., 2009), in most cases expressed by the Market-to-Book (MTB) ratio, greater potential of sales and export (Vital, Cavalcante, Dallo, Moritz & Costa, 2009) and higher stock returns (Alves, 2008; Beato, Souza & Parisotto, 2009).

No consensus exists, however, on sustainability investments, since there are cases in which non-ISE organizations present better financial performance indicators (Vital et al., 2009) or situations in which socially responsible investments present returns similar to the other BM&FBOVESPA indices (Machado, Machado & Corrar, 2009).

It is worth noting that investing in a sustainability index, such as the ISE, may provide investors with less risk (Espejo, 2008; Lameira et al., 2013, Teixeira, Nossa & Funchal, 2011), with risk generally being assessed by the volatility of returns; or provide no advantage in terms of minimizing risk (Cavalcanti & Boente, 2011; Nunes et al., 2010). In addition, it has been proven that investing in ISE can guarantee lower indebtedness (Teixeira, Nossa & Funchal, 2011) and greater social and environmental disclosure (Holanda & Mapurunga, 2012; Milani Filho, 2008).

2.3 Sustainability and Corporate Governance

Generally, studies on corporate governance and corporate sustainability seek to investigate whether investing in more sustainable strategies that promote a better quality of governance generates some impact on the performance of organizations, this being measured by the accounting performance - ROA (Funchal & Terra, 2006; (Carvalhal da Silva & Chien, 2013; Lameira et al, 2013), as well as the risk - volatility of stock returns (Carvalhal da Silva & Chien, 2013; Carvalhal & Tavares, 2013). The studies that approach these themes together seek to propose theoretical models that link these two perspectives.

In relation to the study by Sprague (2010), the author presents the perspective of corporate governance and corporate sustainability, in addition to the company value, that is, the value generated for the shareholder. The paper corroborates Jensen's (2001) studies, arguing that organizations, which want to ensure long-term value, need to consider stakeholder relationships, rather than simply evidence the pursuit of profit. In addition, this author shows that, at times of crisis, such as the financial crisis of 2008-2009, doctrines that emphasize shareholder and self-interest have led many companies to fail in their market.

Mason and Simmons (2014), on the other hand, affirm that an audit, based on corporate social responsibility, can evaluate the corporate governance systems, meeting the interests of the Stakeholders. In this sense, they proposed a model in which corporate governance incorporates corporate social responsibility. This model was based on Stakeholder theory and involved issues such as power, effectiveness and equity.



This integration was also observed in the survey by Krechovská and Procházková (2014), which investigated 193 small, medium and large companies in the Czech Republic. They found that companies are aware of the importance of sustainability for long-term value creation. In a complementary way, they noticed that many companies do not use sustainability as a corporate strategy and do not include it in managerial performance measures.

According to these authors, corporate governance should first involve sustainability, so that companies comply with sustainable principles, which corroborates the studies of Mason and Simmons (2014). Thus, if sustainability is not included in the formulation of objectives, corporate strategies, and policies and processes (from the top), companies' efforts to be sustainable become unnecessary.

Therefore, there is a shortage in the literature, both nationally and internationally, of research that deals with these two issues in an integrated way. It is also worth mentioning the absence of empirical studies on governance and sustainability, which justifies the present study, showing its differential in relation to the other authors.

3. Research Method

3.1 Sample and data

This study is classified as descriptive, quantitative, documentary and survey. Secondary data from different sources were used: (i) Reference Form of the Brazilian Securities and Exchange Commission (CVM) and Report 20-F of the Securities and Exchange Commission (SEC) to obtain the total remuneration of the managers; (Ii) ISE portfolios of BM & FBOVESPA to identify companies listed or not in the ISE; (Iii) BM & FBOVESPA Corporate Governance Index (IGC) portfolios to identify the companies listed on the Novo Mercado; and (iv) Economática to obtain the control variables.

The sample included open-ended non-financial companies listed on the BM&FBOVESPA between 2009 and 2013 and which presented liquidity of 0.001% of the index, corresponding to the company that had the most liquid shares in 50% or more of the years of the survey, using the year 2013 for reference. This method was proposed by Silveira (2004). The year 2009 was defined as the beginning of the sample period since, previously, few companies disclosed the fixed and variable compensation of the board of directors and the board of directors separately. It was therefore, the enactment of CVM Instruction 480 in 2009 that obliged publicly traded companies to present detailed information on the remuneration of managers in the reference form (Carvalhal da Silva & Chien, 2013). Thus, the sample considered involved 236 companies listed on BM&FBOVESPA, composing an unbalanced panel, that is, for some companies, data are available for only part of the sample period.

3.2 Regression model with panel data

This study considers cross-sectional data (i) related to the characteristics of organizations over a time series (t) from 2009 to 2013, involving both a spatial and temporal dimension. Thus, the most appropriate statistical models are panel data regressions (Greene, 2002).

Panel models treat the heterogeneity of data and are divided into fixed effects and random effects models. In order to analyze the most appropriate specification, the Lagrange Multiplier (LM) test proposed by Breusch and Pagan (1980) was first executed, which tests the null hypothesis that the individual non-observable effects are relevant to explain the model and permits choosing between pooled and random effects models. Subsequently, the Hausman test was performed, which evaluates the correlation between x_it and the individual effects of the intercept, under the null hypothesis of corr (u_it, x_it) = 0. Thus, if the effects of the intercept are not correlated with the x_it, the Random Effects model is chosen, but if there is correlation, the Fixed Effects model is preferred.



In addition, Baum's Heterocedasticity test (2001) was performed; as well as the Autocorrelation test by Wooldridge (2002); and the Multicollinearity test, which evaluates the existence of a linear relationship between the variables (Gujarati & Porter, 2011). In short, to evaluate the relationship between corporate sustainability and compensation of managers, the models of Conyon and He (2011) and Funchal and Terra (2006) were used. These authors investigated some variables that may influence the compensation of managers, but did not consider corporate sustainability. Therefore, this study innovates by adding the latter aspect. It is emphasized that Stata 11 software was used for the tests of the estimated model, described below:

$$RT_{it} = \beta_0 + \beta_1 ISE_{it} + \beta_n VC_{it} + \varepsilon_{it}$$
(1)

Where,

i = cross-section indicator;

t = time indicator;

n = represents the number of control variables in the equation;

 β = coefficients associated with the independent and control variables;

RT = total remuneration of managers;

ISE = independent variable of corporate sustainability;

VC = control variables of the equation; and

 ε = error term of the equation.

Figure 1 presents the dependent variable, as well as the independent variable (Corporate Sustainability) and the control variables according to the models considered.



Table 1: Research variables - Manager Compensation model and ISE

Dependent Test Variable							
Var.	Expected Signal	Description	Operational Definition	Authors			
RT		Total remuneration of executives	<i>ln</i> (baseline salary + bonus + other benefits)	Barontini and Bozzi (2008), Conyon and He (2011) and Funchal and Terra (2006)			
Independent Test Variable	9						
ISE	(+/-)	ISE	Dummy 0 and 1 if the companies are listed on the ISE of BM&FBOVESPA	Alves (2008), Beato, Souza and Parisotto (2009), Carvalhal and Tavares (2013), Lameira et al. (2013), Machado, Machado and Corrar (2009), Rossi Jr (2009) and Vital et al. (2009)			
Control Variables							
NM	(+)	Participation in <i>Novo</i> <i>Mercado</i>	Dummy 1 for companies listed on the <i>Novo Mercado</i> and 0 for companies listed on other levels and in the traditional market.	Carvalhal da Silva and Chien (2013)			
ROA	(+)	Total Return on Assets	$ROA = \frac{Net Profit}{Total Assets}$	Carvalhal da Silva and Chien (2013), Funchal and Terra (2006) and Lameira <i>et al</i> . (2013).			
VOL	(+)	Volatility of Returns	$VOL = \sigma \left(ln \left(\frac{P_t}{P_{t-1}} \right) \right)$	Carvalhal da Silva and Chien (2013) and Carvalhal and Tavares (2013)			
CRESC	(+)	Growth Opportunities	% increase in net revenue every three years	Carvalhal da Silva and Chien (2013)			
МТВ	(+)	Market-to-Book	$MTB = \frac{Market Value}{Total Assets}$	Carvalhal da Silva and Chien (2013)			
TAM	(+/-)	Company Size	Ln(Total Assets)	Carvalhal da Silva and Chien (2013), Funchal and Terra (2006) and Lameira <i>et al</i> . (2013)			

Source: Elaborated by the authors.

After outlining the research design, sample, data, regression method and selection of the variables for the econometric models, the empirical results of this study are analyzed.



4. Results and discussion

4.1 Descriptive statistics

Table 1 presents the descriptive statistics of the variables in this study. On average, the total remuneration of managers was R\$ 8.48 million. The standard deviation was \$ 10.76 million, which indicates the large dispersion of this variable, with the highest total remuneration of managers corresponding to R\$ 117.10 million.

In relation to the ISE variable, it is observed that approximately 13% of the sample is made up of companies listed in the BM&FBOVESPA sustainability index. This representativeness is justified, since the ISE's annual portfolios consist of a maximum of 40 companies. In addition, about 49% of the companies analyzed are part of the *Novo Mercado*.

Table 1: **Descriptive statistics of variables used in the study**

	N. Obs.	Mean	Standard Deviation	Max.	Min.
RT	1024	8.48	10.76	117.10	0.00
ISE	1076	0.13	0.33	1.00	0.00
NM	1076	0.49	0.50	1.00	0.00
ROA	1069	-0.04	1.46	0.57	-46.67
VOL	947	36.19	22.18	236.54	4.04
CRESC	930	0.20	0.80	17.55	-1.71
MTB	1066	1.26	3.74	71.00	0.02
TAM	1069	8.37	1.85	14.16	0.00

Source: Research data

The performance measures and values, then, reveal that, on average, the companies' market value (MTBB) is 1.26 times higher than their book value, an asset profitability (ROA) of -0.04, which indicates that the organizations tend to present accounting losses and that this loss corresponds to about 4% of the total asset, with a mean growth of turnover in the past three years corresponding to 20%. In addition, the mean volatility was 36.19.

4.2 Analysis of relationship between manager compensation and corporate sustainability

Table 2 presents the results of the model that estimated the relationship between managers' compensation and corporate sustainability. In addition to the performance variables proposed by Conyon and He (2011) and Funchal and Terra (2006), the corporate sustainability variable influences managers' remuneration.

As results (Table 2), it was observed that there was a significant and positive relationship at 5% between the main variables investigated (managers' compensation and corporate sustainability), which corroborates the hypothesis H1 and suggests that more sustainable companies tend to make possible better remuneration to their managers. In relation to the stock option plan benefit, a 5% significance was also observed, which indicates that the companies that have this type of benefit tend to have higher total remunerations of the executives.

In addition, a negative and significant relationship was observed between the total risk (volatility) and the total remuneration, indicating that the companies with greater risk generally grant lower remunerations to their managers. In this point, we observe a result different from the authors Funchal and Terra (2006), since they did not find a statistically significant relation between the operational risk (standard deviation of the ROA) and the executive compensation (Table 2).



Table 2: **Association between manager compensation and corporate sustainability**

	RT	
	0.3474**	
PO	(0.1638)	
nn.	-0.1732	
BPL	(0.3169)	
DDE	-0.0304	
BPE	(0.1406)	
ICE	0.2392**	
ISE	(0.1155)	
NIA.	0.3210**	
NM	(0.1617)	
DOA	-0.1580	
ROA	(0.3821)	
VOL	-0.0044**	
VOL	(0.0017)	
CDECC	-0.0343	
CRESC	(0.0284)	
MTD	0.1038*	
МТВ	(0.0580)	
TANA	0.3717***	
TAM	(0.0927)	
CONSTANT	11.8900***	
CONSTANT	(0.8851)	
N	811	
R-sq	0.094	
adj. R-sq	0.083	
Rmse	0.4017	
T. Multicollinearity	1.36	
T. Heter. by Baum (2001)	0.0000	
T. Self-correlation by Wooldridge (2002)	0.0001	
T. Hausman	0.0000	

Obs.: The asterisks indicate the significance levels: *p < 0.10; **p < 0.05; and ***p < 0.01. The model was estimated using Fixed Effects. The multicollinearity test reveals that the variables presented no multicollinearity problems. Baum's heteroscedasticity test (2001) rejects the null hypothesis of homoscedastic variances. And the Wooldridge test (2002) rejects the null hypothesis of absence of self-correlation.

Source: Research data



On the market value, we noticed statistical significance in the relation between the MTB and the total remuneration at 10%, which corroborates the studies by Barontini and Bozzi (2008), Conyon and He (2011), Kaplan and Rauh (2008) and Kaplan (2012), indicating that executives tend to be paid for high performance. It is also worth noting that the size of the company has also been positively and significantly related at 1%, which suggests that larger companies tend to offer higher total remuneration to the board, corroborating the work of Conyon and He (2011), Funchal and Terra (2006) and Correia, Amaral and Louvet (2014).

In a complementary manner, a 5% statistical significance was observed in the relationship between total compensation and quality of corporate governance, measured by the variable NM, which evaluates whether or not companies are listed on the BM & FBOVESPA Novo Mercado. This finding corroborates the authors Camargos and Helal (2007), Correia, Amaral and Louvet (2014), Farias (2012), Pinto and Leal (2013), Silva (2010), and Victor and Terra (2009), as they suggest that Corporate Governance tools can justify the executive remuneration.

5. Conclusion

The objective of this research was to investigate the influence of corporate sustainability on the compensation of the managers of Brazilian non-financial companies of BM & FBOVESPA from 2009 to 2013. The basis for this study is the Agency theory, according to which managers can prioritize their interests to the detriment of corporate interests, and Stakeholder theory, which argues that companies need to reconcile stakeholder interests with employees, customers, suppliers and the community to ensure long-term value.

The concern with the alignment of the interests of the principal and the agent has been evidenced in the literature and it is known that one of the ways to align these interests is to offer the managers incentive mechanisms, which are translated into baseline salary, annual bonus plans, stock option plan, among others.

The topics Corporate Governance and Corporate Sustainability, as discussed above, cover a large volume of isolated surveys, but few of them focus on the interaction between these two themes. No empirical studies on these two constructs - Governance and Sustainability - were found in Brazilian or international literature. Specifically, the relationship between corporate sustainability and compensation of managers was not observed either under the theoretical approach, which shows a differential of this work.

Regarding the method of this research, we analyzed the descriptive statistics of the variables used in the study and applied the regression method with panel data to test the proposed relationship. The descriptive analysis revealed that, on average, the total compensation of managers is R\$ 8.48 million, about 13% of the sample involves companies listed in the BM&FBOVESPA ISE and 49% are listed on the Novo Mercado. In addition, companies have an average market value of 1.26 times the book value, a negative asset yield of around 4%, an average growth in sales for the last three years corresponding to 20% and a volatility of 36.19 during the period investigated.

Regarding the results of panel regression models, a positive and statistically significant relationship was observed at 5% among the variables of interest. Thus, it is inferred that the companies listed in the ISE of BM&FBOVESPA tend to grant higher total remuneration to their managers. In addition, a negative relationship between volatility and total managers' remuneration was observed, which indicates that companies with higher risks tend to offer lower total remuneration to their executives.

In addition, it was noticed that the larger companies generally grant better remunerations to their managers, which corroborates the studies by Conyon and He (2011), Funchal and Terra (2006) and Correia, Amaral and Louvet (2014).

It should also be noted that a positive and statistically significant relationship was observed at 10% between the total remuneration and the market value (MTB). Thus, it is suggested that executives are usually paid for high performance, as observed in the studies by Barontini and Bozzi (2008), Conyon and He (2011), Kaplan and Rauh (2008) and Kaplan (2012).



This research contributed to the literature on Manager Compensation and Corporate Sustainability, not only because it involves two relevant topics in the literature, but also because it shows that companies listed in the ISE tend to better remunerate their executives, which indicates that organizations that are concerned with long-term generation and value tend to also seek the mitigation of conflicts of interest between shareholders and managers through greater compensation to managers.

As suggestions for future research, one can evaluate how the other mechanisms of corporate governance affect the compensation of managers, as well as construct a sustainability indicator and test the relationship of this indicator with the total remuneration of the managers.

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