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CORPORATE GOVERNANCE: AN ANALYSIS OF THE RELATIONSHIP BETWEEN TURNOVER AND MANAGEMENT PERFORMANCE[1]

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ABSTRACT

Corporate governance is considered a mechanism that aims to align the actions of managers with the interests of shareholders. Research conducted in the late 1980s and early 1990s identified that the relationship between executive turnover and entity performance can be considered a metric for evaluating the efficiency of a corporate governance system. This metric has been studied in developed economies such as the United States, Denmark, and Japan, but has been poorly addressed in emerging economies. Therefore, this study aimed to verify whether the performance of listed Brazilian companies influences the probability of turnover of senior management positions, in the period from 2012 to 2017. The sample consisted of 87 companies and the model used was the logistic regression. The results showed negative and significant coefficients for the variables Return on Equity, Return on Assets and Family Property. Therefore, it can be concluded that the performance of companies is inversely related to executive turnover, and that family businesses have lower turnover of their managers.

Keywords: Turnover. Corporate governance. Performance.

1 INTRODUCTION

Corporate governance aims to align the actions and options of managers with the interests of shareholders. In view of this, governance can be defined as a mechanism by which shareholders ensure that the board of directors supervises and implements measures capable of reducing agency conflicts (ARMSTRONG; GUAY; WEBER, 2010).

With the evolution of the capital markets and the growth of companies, shareholders began to play a more focused role in the analysis of results and in making decisions about the application of resources. Managers focused on business decisions and strategies that could maximize business performance (DAVIS; THOMPSON, 1994). Considering this aspect, the

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continuity of management before business is related to its ability to generate economic and financial results that meet the expectations of shareholders (WEISBACH, 1988; HITT; IRELAND; HOSKISSON, 2012). When this does not happen, that is, when the entity does not perform satisfactorily, the probability of change in management (*turnover*) increases (VIEIRA; MARTINS, 2018).

Measurement of turnover generally takes into account senior management positions, such as the chairman of the board of directors, the chief executive officer (CEO), and other relevant directors or board positions (WARNER; WATTS; WRUCK, 1988; KAPLAN, 1994a). The replacement of these senior positions is a necessary condition for good corporate governance, since the sensitivity of the high turnover of managers and how it affects performance is a measure of the quality of this governance model (KAPLAN, 1994a, 1994b; MURPHY, 1999; DAHYA; MCCONNELL; TRAVLOS, 2002; VOLPIN, 2002).

The turnover of managers and the performance of the company can be treated as evidence that corporate governance is achieving its main objective or not (MIYAJIMA; OGAWA; SAITO, 2018). This argument was also emphasized by Kaplan (1994a, 1994b) and Coffee Junior (1998), when they emphasized that an effective way to evaluate a corporate governance system would be to analyze whether executive turnover increases as company performance decreases.

Previous studies such as those of Kang and Shivdasani (1995), Lausten (2002), Maury (2006) and Miyajima, Ogawa and Saito (2018) identified in countries with a corporate governance system similar to the significant Brazilian association between executive turnover and the performance of the entity. However, these studies were carried out in countries such as Japan, Italy, Denmark and Finland, that is, they are all considered developed.

Therefore, this study seeks to expand knowledge on the subject under analysis, in a different economic scenario, considered underdeveloped, but which presents governance characteristics similar to those of Japan and continental Europe, such as the concentration of capital and the presence relevant from family businesses. In view of this, the following research question was asked: What is the influence of the performance of publicly listed Brazilian companies on the probability of turnover of managers in senior management positions? The objective of this research was to verify if the performance of Brazilian companies listed on the stock market influences the probability of turnover of senior management positions.

This research contributes to the literature, as it considers the rotation not only of the CEO, but also of other senior management positions responsible for strategic decisions, such

as the chairman of the board of directors, the vice chairman of the board of directors and the executive vice president. The way to measure the turnover was based on the study by Volpin (2002), since the ownership structure of Italy, the country in which the study was conducted, is similar to that of Brazil, as it presents weak legal protection for minority shareholders, inefficient application of the law, high concentration of ownership and the presence of a substantial number of preferred shares. Furthermore, this study verifies, in a market still considered emerging, whether companies have adhered to the practice of changing senior management positions if performance is not satisfactory.

The research of Kang and Shivdasani (1995), Lausten (2002), Maury (2006) and Miyajima, Ogawa and Saito (2018), in addition to focusing on developed countries, measured the turnover only by the position of the CEO. Similarly, the study by Vieira and Martins (2018), carried out with Brazilian companies that are members of the IBrX100, focused on investigating the influence of the structure of the board of directors and corporate control on the turnover of the CEO. In this sense, this research complements the national literature, since it analyzes the effect of performance on the turnover of high positions, in order to verify if the Brazilian corporate government follows the standards of developed countries.

2 THEORETICAL BACKGROUND

In this topic, the bases that served as guidelines for the investigation are discussed, more specifically it deals with corporate governance and its relationship with the rotation of managers. In addition, previous studies in which subjects were treated are listed.

2.1 The relationship between corporate governance and manager turnover

Agency conflicts between shareholders and managers or between controlling and non-controlling (minority) shareholders are known as the main reasons for the emergence of corporate governance (ANDRADE; ROSSETTI, 2012). The corporate governance system used by companies generally depends on the environment in which they operate (BIANCHI *et al*., 2009). In general, there are two main models of corporate governance and the rest are derived from these, which are: Anglo-Saxon and continental Europe (AHMAD; OMAR, 2016).

The Anglo-Saxon model originates from the United States and the United Kingdom and its basic premise is to maximize the wealth of the shareholders, since they are the owners of the

corporation (SHLEIFER; VISHNY, 1997). The board of directors is usually more independent and the chairman of the board cannot be the executive director (MEIER; MEIER, 2014). In this way, ownership is more dispersed and the main agency conflict occurs between management and shareholders. Furthermore, independent members should not abide by the interests of the dominant shareholders, but rather by all shareholders (LA PORTA; LOPEZ; SHLEIFER, 1999; COOMBES; WATSON, 2001).

The continental European model, unlike the Anglo-Saxon, takes a broader perspective and believes that the institution must safeguard the legitimate interests and not only those of the shareholders, that is, it must protect different groups of stakeholders, such as: clients, suppliers, government and society in general (MAASSEN, 1999). In this model, banks have significant proportions of shares and tend to have control and decision-making power in the institution (CERNAT, 2004). The board of directors has an independent part, which is in charge of supervising the members of the board and supervising business decisions. Furthermore, the model tends to have a more concentrated ownership in the hands of managers and board members, as well as can present agency conflicts between majority and minority shareholders (BHASA, 2004; HOPT; LEYENS, 2004).

According to Silveira (2004), the corporate governance model used in Brazil is similar to that of continental Europe. This is due to the fact that, in the Brazilian capital market, there is a concentration of capital, family companies, agency conflicts between majority and minority shareholders and overlap between ownership and administration (ANDRADE; ROSSETTI, 2012).

However, Silva and Grzybovski (2006) emphasize that, regardless of the corporate governance system adopted, it would reflect the quality of the company's management. In this sense, Brickley and Zimmerman (2010) highlight that a government system involves multiple components (board structure, remuneration structure, auditors, debt contracts, government regulation, etc.) and the evaluation of the quality of government is not it depends only on one of its components, but on the system as a whole.

Considering this aspect, the research with those of Shleifer and Vishny (1986), McConnell and Servaes (1990) and Kaplan (1994a, 1994b) presented two different measures to evaluate the efficiency of a corporate governance system. The first metric is related to benchmarking, that is, comparing the company's performance with that of its competitors (SHLEIFER; VISHNY, 1986; MCCONNELL; SERVAES, 1990). The second metric would be to analyze whether executive turnover is related to company performance (KAPLAN, 1994a).

According to Kaplan (1997), without considering the apparent differences between the models of corporate governance, senior executives face the same risk of turnover if the company presents a fall or a low performance.

In Kaplan's (1994a) research, the author aimed to identify the relationship between high turnover, executive compensation, and performance presented by Japanese and American companies. He found that both executive turnover and compensation were related to earnings, stock performance, and, to a lesser extent, sales performance metrics. In light of this, he observed that the wealth of the executives was positively correlated with the performance of the shares and with the factors that contributed to the performance of the entity.

The importance of using entity performance measures as a metric for evaluating managers' performance is intrinsic to Hölmstrom's (1979) principle of informativeness. In summary, this principle considers that economic-financial relations can reflect the consequences of administration decision-making. And, any additional information to the accounting indices could also show agents' efforts to maximize the value of the company.

Studies on this topic have already been carried out in different countries of the world and have been able to verify that both variations in share prices and economic and financial performance are negatively related to high management turnover. These metrics are relevant, since share prices and returns are, in the literature, the main measures of interest to shareholders, since they measure the variability of assets and how they are protected (KAPLAN, 1994a, 1994b; DENIS; KRUSE, 2000; CONYON; FLOROU, 2002; FEES; HADLOCK, 2004; FALEYE, 2007). Furthermore, if the measures to evaluate the efficiency of the corporate governance system are efficient, a negative relationship can be found between the turnover of managers and changes in share prices (WARNER; WATTS; WRUCK, 1988).

Conyon and He (2014) argue that share prices may fluctuate for reasons inherent to the market, that is, variations in share prices may not represent the best metric to analyze the performance of managers. For this reason, accounting performance would be a metric that would better reflect the impacts of the management.

According to Hazarika, Karpoff and Nathata (2012), executives can manage to manage results with a focus on increasing their remuneration, on possible gains in stock profitability and with the objective of job stability. These measures could increase costs for shareholders and, therefore, internal controls and other corporate governance measures would be disciplinary so that managers do not carry out activities that would benefit their own interests. In the study by Hazarika, Karpoff and Nathata (2012), it was observed that revenue management increases

the probability of CEO turnover and is negatively associated with the termination of the professional's mandate.

2.2 Previous studies

Kang and Shivdasani (1995) discussed the role of corporate governance mechanisms during high executive turnover in Japanese corporations. Japan's banking system plays an important role in corporate governance and disciplines corporate managers in the event of underperformance. Thus, using data from 270 Japanese companies from 1985 to 1990, the effects of major banks and external directors on the relationship between high executive turnover and company performance were examined. The results indicated the probability that the turnover is significantly related to the return on assets, excess return on shares and negative operating income however, it is not related to the performance of the sector in which the company was inserted. It was also noted that the sensitivity of turnover to earnings performance is higher for companies with connections to a bank than for companies without these links and that external succession in Japan is more likely for companies with large shareholders and related to a banking institution.

Volpin (2002) studied the determinants of executive turnover and company valuation based on the ownership and control structure in Italy, a country that has little legal protection for investors, companies with controlling shareholders and pyramid groups. The sample consisted of 205 companies listed on the Milan Stock Exchange. The results suggest that there is poor governance, as measured by a low sensitivity of turnover to performance and a low proportion of the company's Q index (the company's market value to the book value) total assets when: (i) controlling shareholders are also top executives; (ii) control is entirely in the hands of one shareholder and is not shared by a group of major shareholders; and (iii) controlling shareholders own less than 50% of the company's cash flow rights.

Lausten (2002) examined whether there was a relationship between CEO replacement and the corporate performance of Danish companies. The main hypothesis used was whether the CEO's probability of rotation was inversely related to the company's performance. The survey sample consisted of large and medium-sized Danish companies from 1992 to 1995. The results found showed that the threat to the volume of business guaranteed that the CEO acted according to the interests of the shareholders. In addition, the status of the chairman of the board

and the family ties within the administration and ownership of the company strengthen the relationship between the rotation of the CEO and the performance of the company.

Maury (2006) investigated how corporate governance and corporate performance affected high executive turnover. The study sample consisted of Finnish companies, from 1993 to 2000. The results indicated an increase in CEO turnover in senior management and in board turnover in response to poor stock price performance and operating losses. It was also found that the sensitivity of the relationship between stock price performance and CEO turnover was significantly higher in companies with a two-tier structure (when the CEO is not the president), but significantly lower when the CEO or Board member was the controlling shareholder. These results suggest that both the ownership structure and the design of the board have implications for disciplining managers.

Miyajima, Ogawa and Saito (2018) examined the turnover of senior executives in Japanese companies during the period from 1990 to 2013. During that period, a bank weakened, the ownership of institutional investors increased rapidly, and independent external directors were introduced to many companies. In this context, the results indicated that the sensitivity of high executive turnover to corporate performance has not changed, despite skepticism about corporate governance of Japanese companies. On the other hand, there was a change in return on assets (ROA), return on equity (ROE) and return on shares. Foreign institutional investors strengthened their turnover sensitivity to ROE after the banking crisis, when their share increased dramatically. On the other hand, there was no evidence that independent external directors have a significant effect on increasing billing sensitivity to ROE. Strong ties to banks have indicated that they still play a disciplinary role.

Vieira and Martins (2018), finally, analyzed the influence of the structure of the board of directors and corporate control on the turnover of the CEO of public companies in Brazil listed in the Brazilian Stock Exchange (B3). The sample comprised 111 companies that are members of the B3 IBrX100 index, between the years 2009 to 2013. The results indicated that the chances of CEO turnover occurring increase when the company shows poor performance and/or profitability of the shares. The independence of the Board did not influence the CEO's turnover sensitivity to performance. Other results indicated that the duality of CEO and Chairman positions was negatively related to CEO turnover. Share holding, taking total shares into account, reduced the sensitivity of CEO t*urnover* to performance.

3 MATERIAL AND METHODS

In accordance with the concepts addressed by Martins and Theóphilo (2009), regarding the approach to the problem, this research was classified as quantitative, since the use of inferential statistics was fundamental to answer the proposed research problem. Regarding the objectives of the research, considering that the focus of the study was to identify the influence of the performance of companies on the probability of turnover of managers, according to the definition of Vergara (2014), this research can be classified as descriptive.

Bibliographic and documentary research were the research strategies chosen for this study. Based on the definitions of Martins and Theóphilo (2009), the bibliographic research provided, in materials that have already been published, knowledge on the topic addressed. Documentary research was essential for this study, since queries were made on the Reference Form (mandatory annual document that listed companies must provide to the Brazilian Securities and Exchange Commission - CVM).

Around the 2000s, the São Paulo Stock Exchange (currently known as B3) created Novo Mercado, a listing segment for companies that voluntarily post additional corporate governance practices. The objective with the creation of Novo Mercado was to reduce the asymmetry of information between shareholders and executives, as well as to encourage fundraising (MOREIRAS; TAMBOSI FILHO; GARCIA, 2010). This segment establishes a highly differentiated corporate governance standard. The Novo Mercado "has become the transparency and governance standard required by investors for new IPOs, being recommended for companies that intend to make offers aimed at any type of investor" (B3, 2018, p. 1).

Considering the relationship of this segment with the object of study of this research, the sample of this study consisted of the companies classified in Novo Mercado de B3, which covers the period from 2012 to 2017, with the exception of financial institutions which present different financial statements of the other segments that totaled 87 companies. This period was chosen in view of the fact that, in 2011, the regulation and criteria for its inclusion in the Novo Mercado were modified. Therefore, the period from 2012 to 2017 was adopted because the standard remained the same, which provided a higher level of comparability between the elements of the sample.

The dependent variable *turnover* and the *family* control variable were obtained by consulting the Reference Report, which is found on the website of the Brazilian Securites

Comission (*Comissão de Valores Mobiliários* – CVM). The other variables of the econometric model were obtained using the Economática® database.

The model variables estimated in this study were selected according to the national and international literature, as shown in Frame 1.

From the panel data, three models were generated to verify which one best fits the data and generated the best estimates, namely: Logit Fixed Effects - EF and Random Effects - RE and Pooled Logit, since the latter was used in studies by Kang and Shivdasani (1995), Volpin (2002), Maury (2006) and Vieira and Martins (2018). Executive turnover is a binary variable that receives a value of 1 in year t, if at least half of the top executives (chairman and vice chairman, chairman of the board of directors and vice chairman) are replaced by t and t +1. This *proxy* was developed based on the work of Volpin (2002), which includes the board and the board of directors at the high-level executive group. According to the author, this is preferable to considering only CEO turnover, as top executives may have similar power and there is no clear classification of authority among them. The proportion made allows solving problems such as the duality of the CEO, that is, the same person who holds the position of chairman and chairman of the board, in addition to the possibility of having more than one CEO. Therefore, considering all the main positions at the top and making a proportion allows a more complete analysis, since it considers the main ones involved in decision making.

Variable	Initials	Formula	Description	Expected Signal	Literature
Dependent Variable					
Turnover	*Turn*	*Dummy*: Y = 1 - There was a change of 50% or more of the executives (chairman of the board of directors and vice president, president and vice president); Y= 0 - opposite case. (parameter used by Volpin (2002))	Exchanges in the positions of: Executive Board and Board of Directors - from 2012 to 2017. **Hypothesis**: the worse the performance of the company, the greater the probability of rotation.		Kaplan (1994a, 1994b); Coffee Junior (1999); Volpin (2002); Maury (2006); Miyajima, Ogawa and Saito (2018)
Independent Variables					
Return On Assets	ROA	(LO + LNO/ ATM)*	Measure the total return on assets.	-	Miyajima, Ogawa and Saito (2018); Kang and Shivdasani (1995)
Return On Equity	ROE	(LL / PLM)*	Measure there turnon capital	-	Miyajima, Ogawa and Saito (2018)
Return On Shares	RET	((PF1-PFt-1+DIVD)/PFt-1)*	Measure stock performance	-	Maury (2006); Miyajima, Ogawa and Saito (2018); Vieira

					and Martins (2018)
Tobin's Q	Q	(Q =(VMO+VMAP+DIVT)/ATM)*	Measures the market value of the company	-	Maury (2006)
Control Variables					
Size	Tam.	LnAtivo	The bigger the company, the lower the probability of turnover	-	Volpin (2002)
Family	Fam	*Dummy:* 1 - Family relationship with any member of the administration or controller; 0 - Otherwise	Family owner shipreduces the probability of rotation.	-	Lausten (2002); Volpin (2002); Miyajima, Ogawa and Saito (2018)

Frame 1 - Model variables

Source: Prepared by the authors (2018).

*Notes: LO - Operating Profit; LNO - Non-Operating Profit; ATM –Average Total Assets; LL - Net Profit; PLM - Average Equity; PF1 - share price at the end of the fiscal year; PFt-1 - share price at the end of the previous fiscal year; DIVD - dividend per share; VM - Market Value; DIVT – accounting value of short-term and long-term debts minus current assets, after the exclusion of inventories value.

The Logit model allows estimating the probability of an event occurring and identifying the independent variables that contribute to your event. The models generated were Pooled Logit (1), Fixed and Random Effects Logit Models (2), to choose the most appropriate one.

$$\ln\left(\frac{P(Y=1)}{P(Y=0)}\right) = \beta_0 + \beta_1 ROA_i + \beta_2 ROE_i + \beta_3 RET_i + \beta_4 Q_i + \beta_5 TAM_i + \beta_6 FAM_i + \eta_i \quad (1)$$

$$\ln\left(\frac{P_{it}(Y=1)}{P_{it}(Y=0)}\right) = \beta_0 + \beta_1 ROA_{it} + \beta_2 ROE_{it} + \beta_3 RET_{it} + \beta_4 Q_{it} + \beta_5 TAM_{it} + \beta_6 FAM_{it} + \varepsilon_{it} + \nu_{it} \quad (2)$$

Note: ln - is the natural logarithm; η - is the error term of the modelPooled Logit; ε - represents the specific unobservable individual effect and does not vary over time, in the panel logit model; v - concerns the usual regression error, which varies with time.

The model is estimated using the maximum likelihood method (WOOLDRIGDE, 2010). Two models are estimated for the panel log to see which one best fits the data. In the Fixed Effects panel logit, the error term, represented by ε_{it}, correlates with the independent variables, which is not the case in the Random Effects model. The panel model specification is given by the Hausman test (WOOLDRIDGE, 2010). The null hypothesis of the test consists of: the estimators of the model with random effects are the most appropriate because they are consistent and efficient; and the alternative hypothesis that fixed effect estimators are the most appropriate. The influence of the explanatory variables on the probability of executive turnover occurring is given by the marginal effect, which measures the variation in the probability of an

event occurring, that is, the possibility of rotating the positions analyzed given the changes in the independent variables.

4 DISCUSSION OF RESULTS

From the variables extracted from the literature, the Correlation Matrix was generated, as shown in Table 1. According to Cohen (2013), correlations greater than 0.5 are considered strong. Therefore, the variables in the estimated models are expected to have a low correlation.

Table 1- Correlation Matrix

Correlation Matrix						
	ROA	**ROE**	**RET**	**Q**	**TAM**	**FAM**
ROA	1					
ROE	**0,464**	1				
RET	-0,0562	-0,0322	1			
Q	**0,490**	0,327	0,200	1		
TAM	-0,184	-0,193	0,0557	-0,164	1	
FAM	-0,0561	-0,0595	0,0388	-0,129	-0,0760	1

Source: Data from the survey.

According to the correlation matrix, the variables ROA and ROE; Tobin's *Q* and ROA have a median correlation. Therefore, to select the most appropriate set of variables, three Pooled Logit models were generated: the first with all the variables, the second without the ROA variable, and the third without the Tobin's *Q* and ROA variables. The selection of the set of variables that make up the final model was made based on the Akaike Information Criteria of (AIC) and Bayesian Information Criteria (BIC). Therefore, the Pooled Logit model 3 was selected, since it had the lowest values for AIC and BIC, as shown in Table 2.

Table 2 – PooledLogit Models

	Models					
Variables	**PooledLogit 1**		**PooledLogit 2**		**PooledLogit 3**	
	Coeff.	**Std. Err.**	**Coeff.**	**Std. Err.**	**Coeff.**	**Std. Err.**
ROA	0,00767	(1,1)				
ROE	-0,0108**	(2,65)	-0,00607*	(2,00)	-0,00626*	(2,37)
RET	-3,715***	(10,09)	-3,771***	(10,27)	-3,781***	(10,53)
Q	-0,1	(0,80)	-0,014	(0,12)		
Size	-0,146	(1,55)	-0,159	(1,70)	-0,157	(1,70)
Family	-0,4	(1,70)	-0,391	(1,67)	-0,385	(1,68)
Constant	3,589*	(2,39)	3,709*	(2,5)	3,677*	(2,52)
Numberofobservations	**522**		**522**		**522**	
AIC	**492,16**		**494,64**		**492,65**	
BIC	**521,96**		**520,19**		**513,94**	

***significantto 1%, **significant to 5%, *significant to 10%.

Source: Data from the survey.

After removing the correlated variables and choosing the model using the AIC and BIC criteria, the fixed and random effects models were generated. According to the Hausman test, the fixed effects model is preferable to the random effects model however, there is no marginal effect for this model. For the inference about the marginal effect, the calculations obtained by the pooled model were used, with the focus of analysis only on the variables that were statistically significant in the *Logit_FE* model. Regarding the fit of the data, the model correctly classified 77.78% of the data. For values of Y = 1, the model reached 85.67% and for Y = 0 it reached 65.87%, with a good fit. This information is detailed in Table 3.

Table 3 - Final model: pooled, random (RE) and fixed effects (FE)

		Models					
Variables	**Marginal Effect**	**PooledLogit 3**		**Logit_RE**		**Logit_FE**	
		Coeff.	**Std. Err.**	**Coeff.**	**Std. Err.**	**Coeff.**	**Std. Err.**
ROE	-0,0015*	-0,00626*	(2,37)	-0,00748*	(2,46)	-0,0477***	(3,83)
RET	-0,8932***	-3,781***	(10,53)	-3,942***	(10,02)	-3,887***	(8,16)
Tamanho	-0,0371**	-0,157**	(1,70)	-0,180	(1,62)	0,531	(0,74)
Familiar	-0,0913**	-0,385**	(1,68)	-0,476**	(1,71)	-2,341*	(2,17)
Constante		3,677*	(2,52)	4,192*	(2,37)		
Number of observations		**522**		**522**		**462**	
Number of groups				**87**		**77**	
McFaddenR^2		0,3124					
Sensitivity (cutoff 0,5)		85,67%					
Specificity (cutoff 0,5)		65,87%					
General adjustment of the model		77,78%					
Area under ROC curve		0,8872					
Hausman Test		χ^2 = 17,37		Valor p = 0,0016			
Insig2u						-0,9114	
sigma_u						0,6340	
Rho						0,1089	

***significant to 1%, **significant to 5%, *significant to 10%
Source: Data from the survey.

In general, the models are in line with expectations, since all the coefficients and the marginal effect have a negative relationship with the turnover of managers. Therefore, they agree with the literature, that is, turnover is negatively related to performance. This study corroborates the findings of the research of Laustem (2002), Volpin (2002), Miyajima, Ogawa and Saito (2018) and Vieira and Martins (2018).

The variables ROE and RET had a negative and significant marginal effect, therefore, increasing the value of ROE or the performance of the shares reduces the probability of change of the managers. This result is in line with the findings of Miyajima, Ogawa and Saito (2018) and Vieira and Martins (2018).

According to Lausten (2012) and Miyajima, Ogawa and Saito (2018), ROE and RET with negative and significant coefficients are related to the principal and agent theory, in which

the threat of rotation ensures that managers act in the interest of shareholders. Considering that turnover, according to Kaplan (1994a, 1994b) and Coffee Junior (1998), is a metric of corporate governance and that the change of managers is a necessary condition for good governance, it can be concluded that companies in the Novo B3 Market are taking the necessary measures. Therefore, when the company does not present a good result, there is a replacement of managers, as indicated by good governance practices. However, according to Conyon and He (2014), share prices may fluctuate for reasons inherent in the market that is, not related to managers. Therefore, in addition to market performance, it is necessary to analyze accounting performance to make a decision on whether or not to change managers.

Although the Novo Mercado segment seeks to achieve the highest standards of corporate governance, the Brazilian market is marked by a high concentration of ownership, by the overlap between management and ownership, by agency conflicts between majority and minority shareholders and by a weak legal protection of the latter. Given this scenario, the use of appropriate governance measures, such as executive turnover (president or CEO) when performance is poor, may not occur. After all, few shareholders have decision-making power, as there is a large circulation of preferred shares. Furthermore, the business owner or his family members often occupy the highest positions in the administration, making it difficult to remove them. Knowing that this replacement in senior positions is an indicator of good governance, shareholders and investors can include this analysis in their decision-making processes and, therefore, invest in companies that make rational and impersonal decisions, with the aim of get the best result.

Regarding the control variables, the size of the company was not significant in the fixed effects model and presented statistical significance at 10% in the pooled model. Therefore, due to the contradiction of the results, the variable was considered not significant to avoid erroneous conclusions. The family relationship between managers, on the other hand, presented negative and significant coefficients at 10%. Therefore, the probability of changing management positions in family businesses is less. This result is in line with the research of Lausten (2002), Volpin (2002) and Miyajima, Ogawa and Saito (2018).

In addition to financial performance, another factor influencing the issue of manager turnover is the ownership structure. According to La Porta, López, Shleifer (1997) and Vishny (1997), emerging markets, such as Brazil, exhibit less competitiveness and companies have a higher concentration of capital, especially in companies with family relationships. Consequently, governance in family businesses is based on a rationality impregnated by the

rules and norms of the family system, that is, it is influenced by individual and collective feelings inherent in that family (BORNHOLDT, 2000). For Buchholtz (2001) and Schulze, Lubatkin, Dino (2001) communication, decision-making, and supervision by managers incur lower costs and are facilitated by the fact that members have intimate knowledge of each other. Furthermore, they discourage poor performance by having this close relationship between members of management and between them and the company.

Therefore, the results found in this investigation are in agreement with the national and international findings. The Brazilian governance system, measured according to the criteria of Kaplan (1994a, 1994b) and Coffee Junior (1998) can be considered efficient, since it penalizes executives of companies that perform poorly. If there were a lack of sensitivity of staff turnover to performance, this would indicate an inadequate governance structure. However, to analyze the turnover of companies, the ownership structure of the company must be taken into account, that is, whether it is familiar or not, if it has a concentration of capital and factors inherent in the market.

5 CONCLUSIONS

Governance is seen as a subset of contracts in the corporate world and aims to align divergent interests between managers and partners. It is through corporate governance that shareholders ensure that monitoring measures are being taken to reduce potential agency conflicts. Both the turnover of managers in their respective positions and the economic performance of companies are used as metrics to assess whether the main objective of corporate governance is being achieved. Based on these assumptions, the objective of this research was to verify whether the performance of companies influences the probability of management turnover. To this end, 87 companies that appear in the B3 *Novo Mercado* were analyzed, as they have higher levels of government.

Regarding the research results, the variables return on shares and return on capital were significant, indicating that the companies in the sample tend to change their managers when the result is not satisfactory. The significant and negative result of these metrics is relevant, since share prices and performance are, in the literature, the main measures of interest to shareholders, since they measure the variability of assets and how they are protected. Therefore, shareholders are interested in getting more out of the shares, and therefore the company needs to perform

well. Performance, in turn, is related to management, so when management is not efficient, the change is justified.

However, it is noteworthy that the issue of turnover is not only related to the performance of the financial market, that is, there are intrinsic characteristics of the company that can affect the change of managers. An example of this is whether or not the property is family owned. For Lausten (2002), in family businesses, managers are not fired due to poor performance, since this is treated collectively.

This work contributed to the national literature, as it innovated in the analysis only of Novo Mercado companies, since they must follow strict governance standards, which can be measured by turnover. Therefore, this study indicates to the market that the companies listed in B3 follow the governance criteria, as expected. In addition, the Pooled Logit, Fixed and Random Effects models were estimated to see which one best fits the data and thus obtain the best results.

The relationship between corporate governance and performance, with a focus on managers, is widely studied in developed economies such as the United States, Denmark, Japan, Finland, Italy, among others. Among the main studies of these countries are, respectively, Kaplan (1994a), Kang and Shivdasani (1995), Lausten (2002), Volpin (2002), Maury (2006), Miyajima, Ogawa and Saito (2018). This study shows, from the perspective of an emerging country, this relationship between governance and performance as measured by turnover.

The study has implications for the Brazilian literature, because although the turnover metric is used in several developed countries, in Brazil the studies are incipient. Therefore, this research suggests the analysis of executive turnover as a parameter to be considered by the Brazilian capital market, after all, the replacement of managers may indicate problems with the company's performance. Furthermore, it indicates to the market and international literature that, in a higher segment of corporate governance, even in an emerging country, measures are taken to improve corporate results.

With respect to the limitations found in this investigation, it is possible to mention the fact that some companies did not disclose, during all the periods analyzed, information about changes in the positions of their main managers. Therefore, the conclusion of this study was based on the companies that published the complete information. In addition, information on the reason for the dismissal of the position was not available, and further analysis was not possible, as some CEOs or chairmen of the board remain in office for several consecutive years, some changes may occur, for example, by retirement, unrelated to performance.

As suggestions for future research, the following stand out: (i) estimate alternative models, considering, separately, the variables ROA, ROE and Tobin's *Q* and compare the explanatory power of these models, considering that in this study, specifically, the Final analysis was performed based only on the second variable; (ii) include other proxies to evaluate turnover, since, in this research, the methodological decision was made to use the proxy adopted by Volpin (2002), which may differ from those used in other studies; (iii) analyze whether management turnover is influenced by other variables, such as, for example, the concentration of voting rights and excess voting rights; and (iv) make a comparison between countries, in order to identify whether the probability of the administration's turnover is strongly influenced by the stock market on which the company is listed.

REFERENCES

AHMAD, S.; OMAR, R. Basic corporate governance models: a systematic review. **International Journal of Law and Management**, 2016.

ANDRADE, A.; ROSSETTI, J. P. **Governança corporativa:** fundamentos, desenvolvimento e tendências. São Paulo: Atlas, 2012.

ARMSTRONG, C. S.; GUAY, W. R.; WEBER, J. P. The role of information and financial reporting in corporate governance and debt contracting. **Journal of Accounting and Economics**, London, v. 50, p. 179-234, 2010.

B3. **Segmentos de listagem**. 2018. Disponível em http://www.b3.com.br/pt_br/. Acesso em: 01 dez. 2018.

BHASA, M. P. Understanding the corporate governance quadrilateral. **Corporate Governance: The International Journal of Business in Society**, 2004.

BIANCHI, M. *et al*. A evolução e o perfil da governança corporativa no Brasil: um levantamento da produção científica do ENANPAD entre 1999 e 2008. **ConTexto.** Porto Alegre, v. 9, n. 15 (1. sem. 2009), p. 1-26, 2009.

BORNHOLDT, W. **Governança na empresa familiar:** implementação e prática. Porto Alegre: Bookman, 2000.

BRICKLEY, J. A.; ZIMMERMAN, J. L. Corporate governance myths: comments on Armstrong, Guay and Weber. **Journal of Accounting and Economics**, v. 50, n. 2-3, p. 235-245, 2010.

CERNAT, L. The emerging european corporate governance model: anglo-saxon, continental, or still the century of diversity?. **Journal of European Public Policy**, v. 11, n. 1, p. 147-166, 2004.

COFFEE JUNIOR, J. C. Future as history: the prospects for global convergence in corporate governance and its implications. **Columbia Law School Center for Law and Economic Studies Working Paper**, New York, n. 144, p. 1-140, 1998.

COHEN, J. **Statistical power analysis for the behavioral sciences**. Academic Press, 2013.

CONYON, M. J.; FLOROU, A. Top executive dismissal, ownership and corporate performance. **Accounting and Business Research**, v. 32, n. 4, p. 209-225, 2002.

CONYON, M. J.; HE, L. CEO *turnover* in China: the role of market-based and accounting performance measures. **The European Journal of Finance**, v. 20, n. 7-9, p. 657-680, 2014.

COOMBES, P.; WATSON, M. Corporate reform in the developing world. **The McKinsey Quarterly**, p. 89-89, 2001.

DAHYA, J.; MCCONNELL, J. J.; TRAVLOS, N. G. The Cadbury committee, corporate performance, and top management turnover. **The Journal of Finance**, v. 57, n. 1, p. 461-483, 2002.

DAVIS, G. F.; THOMPSON, T. A. A social movement perspective on corporate control. **Administrative Science Quarterly**, p. 141-173, 1994.

DENIS, D. J.; KRUSE, T. Managerial discipline and corporate restructuring following performance declines. **Journal of Financial Economics**, London, v. 55, n. 3, p. 391-424, 2000.

FALEYE, O. Classified boards, firm value, and managerial entrenchment. **Journal of Financial Economics**, London, v. 83, n. 2, p. 501-529, 2007.

FEE, E.; HADLOCK, C. J. Management turnover across the corporate hierarchy. **Journal of Accounting and Economics**, London, v. 37, n. 1, p. 3-33, 2004.

HAZARIKA, S.; KARPOFF, J. M., NAHATA, R. Internal corporate governance, CEO turnover, and earnings management. **Journal of Financial Economics**, London, v. 104, p. 44-69, april. 2012.

HITT, M. A.; IRELAND, R. D.; HOSKISSON, R. E. **Strategic management cases: competitiveness and globalization**. Cengage Learning, 2012.

HÖLMSTROM, B. Moral hazard and observability. **The Bell Journal of Economics**, Santa Monica, v. 10, n. 1, p. 74-91, 1979.

HOPT, K. J.; LEYENS, P. C. Board models in Europe–recent developments of internal corporate governance structures in Germany, the United Kingdom, France, and Italy. **European Company and Financial Law Review**, v. 1, n. 2, p. 135-168, 2004.

KANG, J.-K.; SHIVDASANI, A. Firm performance, corporate governance, and top executive turnover in Japan. **Journal of Financial Economics**, London, v. 38, n. 1, p. 29-58, 1995.

KAPLAN, S. N. Top executive rewards and firm performance: a comparison of Japan and the United States. **Journal of Political Economy**, Chicago, v. 102, n. 3, p. 510-546, 1994a.

KAPLAN, S. N. Top executives, turnover, and firm performance in Germany. **Journal of Law, Economics and Organization**, Oxford, v. 10, n. 1, p. 142-159, 1994b.

KAPLAN, S. N. Corporate governance and corporate performance: a comparison of Germany, Japan, and the US. **Journal of Applied Corporate Finance**, Chicago, v. 9, n. 4, p. 86-93, 1997.

LA PORTA, R. *et al.* Legal determinants of external finance. **The Journal of Finance**, v. 52, n. 3, p. 1131-1150, 1997.

LA PORTA, R.; LOPEZ, F. de S.; SHLEIFER, A. Corporate ownership around the world. **The Journal of Finance**, v. 54, n. 2, p. 471-517, 1999.

LAUSTEN, M. CEO *turnover*, firm performance and corporate governance: empirical evidence on Danish firms. **International Journal of Industrial Organization**, v. 20, n. 3, p. 391-414, 2002.

MAASSEN, G. F. **An international comparison of corporate governance models:** a study on the formal independence and convergence of one-tier and two-tier corporate boards of directors in the Unites States of America, the United Kingdom and the Netherlands. Gregory Maassen, 1999.

MARTINS, G. de A.; THEÓPHILO, C. R. **Metodologia da investigação científica para ciências sociais aplicadas**. 2. ed. São Paulo: Atlas, 2009. 247 p.

MAURY, B. Corporate performance, corporate governance and top executive *turnover* in Finland. **European Financial Management**, Helsinki, v. 12, n. 2, p. 221-248, mar. 2006.

MCCONNELL, J. J.; SERVAES, H. Additional evidence on equity ownership and corporate value. **Journal of Financial Economics**, London, v. 27, n. 2, p. 595-612, 1990.

MEIER, H. H.; MEIER, N. C. Corporate governance: an examination of US and european models. **Corporate Ownership & Control**, v. 11, n. 2, p. 347-351, 2014.

MIYAJIMA, H.; OGAWA, R.; SAITO, T. Changes in corporate governance and top executive turnover: the evidence from Japan. **Journal of the Japanese and International Economies**, v. 47, p. 17-31, march. 2018.

MOREIRAS, L. M. F.; TAMBOSI FILHO, E.; GARCIA, F. G. Dividendos e informação assimétrica: análise do novo mercado. **Revista de Administração**, São Paulo, v. 7, n. 4, p. 671-682, nov. 2010.

MURPHY, K. J. Executive compensation. **Handbook of Labor Economics**, v. 3, p. 2485-2563, june. 1999.

SCHULZE, W. S. *et al*. Agency relationships in family firms: theory and evidence. **Organization Science**, v. 12, n. 2, p. 99-116, apr. 2001.

SHLEIFER, A.; VISHNY, R.W. Large shareholders and corporate control. **Journal of Political Economy**, v. 95, p. 461-488, 1986.

SHLEIFER, A.; VISHNY, R. W. A survey of corporate governance. **The Journal of Finance**, v. 52, n. 2, p. 737-783, 1997.

SILVA, W. M. da; GRZYBOVSKI, D. Efeitos da governança corporativa e da performance empresarial sobre o turnover de executivos no Brasil: comparando empresas familiares e não-familiares. **Revista de Administração Mackenzie**, São Paulo, v. 7, n. 1, 2006.

SILVEIRA, A. Di M. da. **Governança corporativa e estrutura de propriedade: determinantes e relação com o desempenho das empresas no Brasil**. 2006. 254 f. Tese (Doutorado em Administração) - Universidade de São Paulo, São Paulo, 2006.

VERGARA, S. C. **Projetos e relatórios de pesquisa em administração**. 15. ed. São Paulo: Atlas, 2014. 94 p.

VIEIRA, C. A. M.; MARTINS, O. S. Influência da estrutura do conselho de administração e do controle corporativo no *turnover* do CEO das empresas abertas no Brasil. **Revista Contemporânea de Contabilidade**, Florianópolis, v. 15, n. 34, p. 181-201, mar. 2018.

VOLPIN, P. F. Governance with poor investor protection: evidence from top executive turnover in Italy. **Journal of Financial Economics**, London, v. 64, n. 1, p. 61-90, mar. 2002.

WARNER, J. B.; WATTS, R.; WRUCK, K. H. Stock prices and top management changes. **Journal of Financial Economics**, London, v. 20, n. 1-2, p. 461-492, 1988.

WEISBACH, M. S. Outside directors and CEO t*urnover*. **Journal of Financial Economics**, London, v. 20, p. 431-460, 1988.

WOOLDRIDGE, J. M. **Econometric analysis of cross section and panel data**. MIT Press, 2010.

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