

CEO TURNOVER AND ABNORMAL RETURN: EFFECTS OF THE INTENSITY OF NEWS DISCLOSURE IN ECONOMIC JOURNALS

TURNOVER DE CEOS E RETORNO ANORMAL: EFEITOS DA INTENSIDADE DA DIVULGAÇÃO DE NOTÍCIAS EM JORNAIS ECONÔMICOS

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ABSTRACT

Purpose: This paper aims to investigate the relation between Brazilian capital market abnormal returns and CEO turnover motivations disclosures intensity based on the Efficient-Market Hypothesis (EMH) in its semi-strong form.

Design/methodology/approach: A panel data of 65 events publicly traded Brazilian companies that have a Pension Fund among their shareholders, between 2010 and 2014 were used. Applying the Event Study methodology, the ordinary least-squares (OLS) multiple regression analysis was used to calculate the abnormal returns. The CEO turnover data were manually collected and systematically crosschecked, and content analysis were employed to identify its motivations. Spearman's correlation measured the relation between motivation disclosure intensity and the abnormal returns.

Findings: Results reveal a positive and statistically significance relationship between the abnormal return and the intensity of news reporting on CEO turnover.

Practical Implications: The study it allows to understand whether the disclosure intensity of the CEOs turnover motivations affects the magnitude of the abnormal returns in firms of which the Pension Funds participate in the capital.

Social Implications: The findings have one important implications in firms of which the Pension Funds participate in the capital. It makes possible to assess the Brazilian market behavior in the event of CEO's changing, as sophisticated and regulated institutional investors.

Originality/Value: This study extended to disclosure intensity and returns literature by offering new evidence on the effect of CEO turnover motivations disclosures intensity on the market abnormal returns for Brazilian firms.

Keywords: CEO turnover. Returns. Intensity of disclosure.

RESUMO

Objetivo: analisar a relação entre os retornos anormais no mercado de capitais brasileiro e a intensidade das divulgações das motivações do *turnover* de *CEO*, tendo como fundamento teórico a Hipótese do Mercado Eficiente na sua forma Semiforte.

Metodologia: A amostra foi composta por 65 eventos de companhias brasileiras de capital aberto que possuem entre seus acionistas um Fundo de Pensão e compreendeu o período entre 2010 e 2014, utilizando a metodologia do Estudo de Eventos. Para calcular os retornos anormais foi utilizada a regressão linear por meio dos Mínimos Quadrados Ordinários. Para identificar as motivações sobre *turnover* de *CEO* foi utilizada a Análise de Conteúdo. A relação entre a intensidade da divulgação das motivações e os retornos anormais foi medida por meio da correlação de *Spearman*.

Resultados e Conclusões: os resultados mostram que há relação significativa e positiva entre o retorno anormal e a intensidade de divulgação de notícias sobre o *turnover* de *CEO*.

Implicações Práticas: o estudo permite compreender se intensidade da divulgação da motivação para o *turnover* de *CEOs* das Companhias em que os Fundos de Pensão participam do capital afetam a magnitude dos retornos anormais.

Implicações Sociais: o estudo permite avaliar o comportamento do mercado brasileiro na ocorrência de troca do *CEO* das Companhias em que os Fundos de Pensão participam do capital, na qualidade de investidores institucionais sofisticados e regulados.

Originalidade: consiste em mostrar a relação entre a intensidade da divulgação das motivações do *turnover* em jornais econômicos e o retorno anormal das ações.

Palavras-chave: *Turnover* de *CEO*. Retornos. Intensidade da divulgação.

1 INTRODUCTION

Chief Executive Officer (CEO) is the most important manager in conducting a company's destiny since he takes decisions that affect other organizational decision makers, deliberating about organizational culture, establishing long term goals and objectives (Messersmith et al., 2014). The change of the main executive (turnover) is a relevant fact in a company's history and such change can have several sources and generate abnormal returns in capital market. The intensity of disclosure motivations leading to turnover can affect the size of such abnormal returns.

When regarding to Companies that have institutional investors in their stakeholders' board, this issue also have important aspects to be observed. Parrino, Sias, & Starks (2003) found that institutional participation decreased in the past year due to a CEO forced Exit; that there is an increase in the participation of individual investors and a decrease in the participation of institutional investors in turnover situations because they are more worried with the safety of cautious equity and have more information; that change measures on institutional property are negatively related to forced turnover probability. Cheung & Jackson (2012) found strong evidence that volatility level increases after Exit disclosure, and such increase is significantly higher when CEO's forced Exit take place when compared to volunteer Exit.

Accumulated abnormal returns also tend to be negative in case of forced Exit. Jenter & Lewellen (2019) observed a proximal relation between Company performance and the change of major executives and estimated that almost 50% of the changes in the first eight mandate years are related to a poor performance. Fiordelisi & Ricci (2014) found strong evidence of negative relation between Company performance and the Exit of its major executive. The possibility of a change is positively influenced by competition culture. Jenter & Kanaan (2015) investigated a sample containing 3,365 CEO changes from 1993 to 2009 and found that these executives are significantly more prone to be fired after their bad performance, but in lower degree also bad.

In international market the influence of Pension Funds in leading investor companies is

strong and explicit. This process is called institutional stakeholders activism (Kaplan & Minton, 2012). However no Brazilian research was found approaching the issue when CEO turnover takes place in Companies which corporate structure includes Pension Funds.

So, taking into account the content of the exposed, the question guiding this research is presented: **what is the relation between hare abnormal return and CEO turnover motivations disclosure intensity in public-held Companies with Pension Funds stake?**

Arguments presented in previous studies converge to the fact that changing the major executive influences on investment decisions in Companies which corporate structure includes Pension Funds. In this sense, the hypothesis guiding this study predicts that the returns from shares of Companies which corporate structure includes Pension Funds react as a function of the intensity of motivations disclosure that lead to CEO turnover.

Brazilian researches have not approached the effects of CEO turnover as a function of motivations to exchange, stakeholder quality, and disclosure intensity. Machado, Cunha, Iara & Gomes (2013) studied the impact on abnormal returns resulting from the disclosure of information of cases of directory change in Brazilian capital market from 2010 to 2012. But they did not evaluate the effects as a function of motivations to exchange, stakeholder quality, and disclosure intensity. Matsumoto, Baraldo & Jucá (2018) analyzed the hypothesis that the issue of debentures generates abnormal positive returns on the shares of the issuing companies. To this end, a study of events is carried out between the period of January 2014 and June 2015, with reference to the date of the announcement of the start of the distribution of the debentures. As a result, they found that most of the accumulated abnormal returns are positive and statistically different from zero, confirming the hypothesis of this study. This points to signs of semi-strong efficiency in the market.

In this sense, the present study contributes to researches on the issue when evaluates Brazilian market behavior when an exchange takes place in major executive of Companies which Pension Funds participate in capital, as sophisticate, regulated institutional investors. Other important contribution is to check the relation of turnover motivations disclosure intensity in Economics journals and the abnormal return of shares in capital market, having the Efficient Market Hypothesis as background.

2 EFFICIENT MARKET HYPOTHESIS AND EVENTS EXPLAINING CEO TURNOVER

The Efficient Market Hypothesis is one of the most discussed issues in Finance Theory took over a prominent place in researches, specially due to studies performed by Fama (1970). The Efficient Market Hypothesis has its two most important pillars to capitals market in information and competition among players. The hypothesis is based on the presumption that share prices immediately reflect relevant information revealed to the market.

Market requires constant information so investors can make their choices in the assumption of an optimal resource allocation. Such information impact on current prices in shares market and tend to reflect in the relation between risk and return. Prices in shares market change fast because new information rise and investors reevaluate their strategies in face of such new information. However, if market is efficient shares prices will rapidly incorporate all information available (Brealey & Myers, 1982; Ross, Westerfield & Jordan, 2015) with no very high or very low market price.

The Efficient Market Hypothesis states all information will reflect on price behavior. So, share prices will adjust to events that happen, resulting from good or bad news, as long as they are available to stakeholders. Even if high transaction costs occur, they will not prevent price adjustment

to new information, as well as market can be efficient if a significant number of investors detain access to information. For Efficient Market Hypothesis to be valid it is necessary that information available is incorporated on share prices in an immediate but non-biased or asymmetric way (Fama, 1970).

Researches by Ball & Brown (1968), Beaver (1968), and Fama, Fisher, Jensen & Roll (1969) provided more statistic consistency and reinforced the theory supporting the model, which presumes market efficiency in its Semi strong form, quickly reflecting public information disclosed. Despite the model used for determining the expected share return on $t+1$, information available in t will be fully incorporated to price projected for $t+1$. In such logic, in Efficient Market Hypothesis no important information would be ignored by market, given that price becomes a good measurement of share value. Maluf Filho (1991) asserts the ways of market efficiency tend to follow a construct in which the strong level addresses conditions of the weak and semi strong forms, and it requires weak form requirements to be addressed.

Studies have demonstrated that disclosure of command exchange generate impacts on Companies share prices. CEO turnover tends to impact management and pricing of titles in market, either positive or negatively, depending, among other factors, on exchange motivation. In face of this investors tend to review their expectations on Company value due to the relevant role of the major executive (Cheung & Jackson, 2012).

Parrino (1997) was one of the first researchers to establish a ranking for the exchange of a Company's major executive. She split exchanges into two big groups: forced turnover and volunteer turnover. That ranking became the one of use by other researchers about the effects of the event on capital market. Volunteer turnover is that one depending only on the executive will to leave the Company. On the other hand, forced turnover does not depend on CEO's will. Studies show that disclosing a CEO is leaving reflects in negative results due to uncertainty perception of investors as to the Company future (Warner at al., 1988). However when the exchange is volunteer there was no explanation found about market reaction (Salas, 2010).

The ranking of CEO turnover determinant motivations does not find consensus and, because of this, faces some arbitrariness. Some studies tried to mitigate such subjectivity by means of a balance between objectivity and precision, adopting public media reports as information basis to establish the effective reason for leaving. First studies approaching news ranking on CEO turnover ranked leaving as forced in case of explicit declaration from the Company containing terms such as "firing", "conflict", or "invited to leave", and all other reasons were ranked as volunteer (Engel at al., 2003; Mahajan & Lummer, 1993).

3 METHODOLOGICAL PROCEDURES

3.1 Events study

The study features as a descriptive research to investigate the relation between CEO turnover motivations disclosure intensity and abnormal return of capital market in the perspective of Pension Funds stakeholders. Thus, the research characterizes as empirical-analytical type by means of Events Study. Time frame was chosen from 2010 to 2014 because it is a period after world crisis in 2008 and after implanting IFRS – International Financial Reporting Standards in Brazil. World crisis in 2008 reflected across the world, affecting Companies' performance and the implantation of IFRS in Brazil generated the need for adjustments in Accountings from 2008 on. In face of this, information from 2010 is free from effects of eventual adjustments on Accountings from 2008 on. In face of this, information from 2010 on is free from eventual effects triggered by such facts.

The Events Study consists in analyzing the effect of market specific information that can affect pricing of securities values of given Companies. It aims at observing the effect of a given event on the price of a particular group of securities from one or more Companies, depending on the event (Wooldridge, 2010). The use of the method lies on the fact that, according to market rationality, the event effects will immediately reflect on securities prices. The Events Study in the present research follows procedures described by Campbell, LO & Mackinlay (1997).

The event set for research content was the turnover for CEOs from Companies that had their shares negotiated at BM&FBovespa and have, among their stakeholders, a close Pension Fund. Estimation frame was a time series used for calculating the normal behavior of shares prices daily returns for each Company studied. Behavior is said to be normal when it is built during the period before the event occurrence (Takamatsu at al., 2008).

The use of an interval of 5, 3, or 2 days is common in accountings and finances for establishing the total days before and after the event takes place (Camargos & Barbosa, 2003). To the present study the interval of 5 days less and 5 days more (-5 and +5) considering the day of the event (t_0) is used, involving a total of 11 days for observations throughout the event interval, being 10 days around the date of the first CEO turnover disclosure (t_0).

3.2 CEO turnover motivations disclosure intensity

From the Motivation Dimensions of Forced and Volunteer *Turnover* an Index to capture the Motivations Disclosure Intensity was issued. Motivations are said to be forced when news about it mention CEO was fired, forced to leave his position, or left due to non-specific political differences. Volunteer motivations nominate exits announced as CEO is occupying the same position like the previous one at another work when disclosed (Jenter & Kanaan, 2015). This information allowed obtaining variables and metrics used for analyzing relations between CEO turnover motivations and the abnormal return of shares in an event time frame.

The Technique for Content Analysis was used to identify major executive changes in news disclosed within the time frame of the events. For Content Analysis words and synonyms were established to summarize motivational facts, following the procedures listed: (1) date when turnover took place was identified by means of communications Companies must send to Stock Exchange and the Securities and Exchange Commission; 2) news about the fact were split and systematically arranged to be submitted to software ATLAS.ti® 7 aiming at mitigating researcher subjectivity.

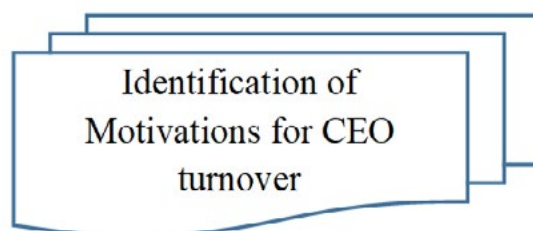
The index for Forced and Volunteer Dimensions was structured taking motivations into account. The split into forced and volunteer dimensions agrees with procedures adopted by Parrino (1997) and Bushman at al. (2010). Pre-ranked expressions and synonyms were identified and presented in Chart 1:

Chart 1: Expressions and synonyms used in content analysis.

DIMENSIONS/MOTIVATIONS	EXPRESSIONS AND SYNONYMS (CODES)
FORCED TURNOVER	
Unsatisfactory Economical, Financial, or Strategic Performance	Performance, efforts, synergy, challenges, business reorganization, negative results.
Due to Disease	Disease, attack, dysfunction, pathology, illness, disturb, sickening, illnesses, nuisance.
Due to Decease	Decease, disappearance, annihilation, death, perishing, passing, demise.
Leave position to stay only at Board of Administration	Board of Administration, New Market, Level 1, Level 2, Regulatory Benchmark, Regulation, stay in Board, Board centralization.
Due to Accounting Fraud and Corporate Corruption	Fraud, coup, cheating, scam, sham, trick, con, swindle, corruption, adulteration, distortion, tampering, alteration.
Due to New Regulations in Financial System	Regulation, New market, Stock exchange, Branches, clearing, adjustment, regulation.
Triggered by Political Changes in Government	Change, exchange, oscillation, alternation, mandatory.
Due to Organizational Restructuration	Reorganization, restructuration, reform, regeneration, renewal, restructuration.
VOLUNTEER TURNOVER	
Due to Retirement	Retirement, withdrawal, distance, inactivity
Caused by Personal Reasons	Vacation, rest, travel, family, disease of a relative

Source: authors based on Parrino (1997).

Synonyms of each expression were used aiming at potentiating the search for expressions and minimizing discarding words related to set motivations. In this case, the software used allows grouping words or expressions into families by using codes. Disclosed news were read and analyzed in their context in order to encode them. Each new was initially identified by its title, read and submitted to software ATLAS.ti® 7.



Besides identifying expressions and synonyms denoting explanatory motivations to turnover, it was necessary to measure the CEO change motivation disclosure intensity.

Proxies were proposed for measuring the CEO turnover motivation disclosure intensity about news. The idea was providing an index that captured the intensity of the repercussion of disclosing CEO turnover. The basic assumption was that highest intensity of turnover news disclosure has a potential to cause abnormal returns within the events time frame. For that, each new was grouped according to CEO turnover motivation and submitted to 11 propositions, given 1 (one) point to each proposition confirmation and 0 (zero) in case of a negative. Proxies used are presented in Chart 2.

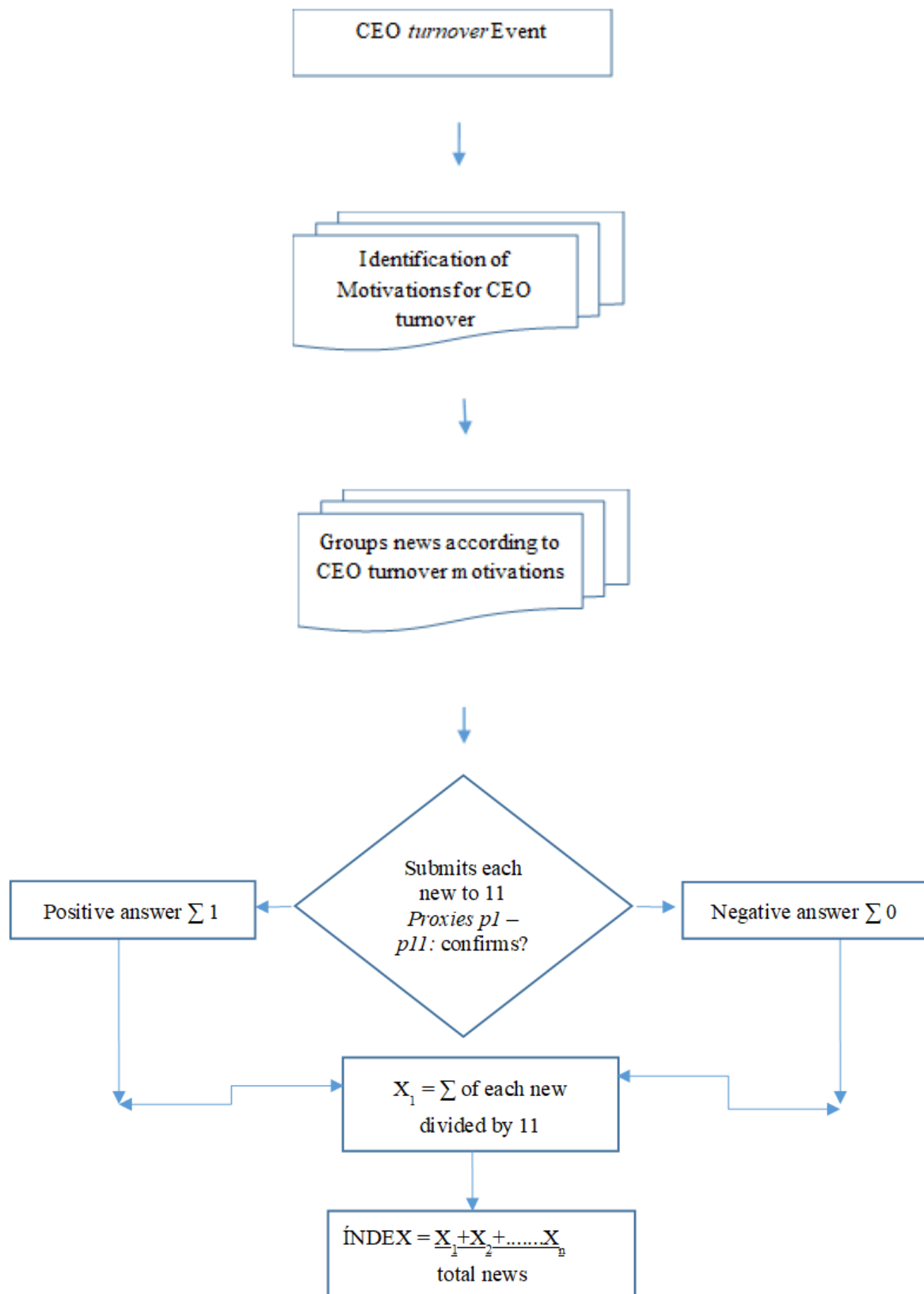
Chart 2 – Proxies for measuring Motivations Disclosure Intensity

P1: More than one new disclosed
P2: The new is published in Bloomberg
P3: The new is disclosed in Bloomberg and other media
P4: There is more than one new in the same day
P5: The same new is repeated on Bloomberg in more than one day
P6: There are news in Bloomberg in more than one day and in other media
P7: The new about CEO turnover is exclusive
P8: The new has a headline about CEO turnover
P9: The same new is published in other media on the same date
P10: Media is exclusively on economics
P11: The new is from a day other than the one of the meeting about CEO turnover

Source: authors (2016).

The total score of each new obtained from *proxies* to each motivation was divided by the maximum score possible (11). Then the average calculation of the scores for each turnover motivation was performed. The result is the index of CEO turnover motivation disclosure intensity. Figure 1 synthesizes the construction of the Index of Disclosure Intensity of CEO Turnover Motivations News.

Figure 1: Construction Flow of the Index of Disclosure Intensity of CEO Turnover Motivations News.



Source: Authors (2016).

3.3 Model for Abnormal Return Calculation

The use of continuous or discrete capitalization ways depends on the researcher view about market informational dynamics and the reaction of share prices to information. The traditional calculation method, assuming the use of a discrete capitalization regimen was used in this research because the information about CEO exit reaches market in distinct instants, causing discrete variations on shares prices. For discrete capitalization the perspective is that information has its origin in different moments, generating discrete variations on shares prices (Fama, 1965). The estimation interval was built based on variables ($R_{i,t}$) for Company share daily return and market daily return, represented by IBOVESPA – Index of São Paulo Stock Exchange ($R_{m,t}$), established as follows:

$R_{i,t} = (P_t/P_{t-1})-1$	(1)
$R_{m,t} = (C_t/C_{t-1})-1$	(2)

Where,

$R_{i,t}$ is share return in time t;

P_t is share price in time t;

P_{t-1} is share price in time t-1;

$R_{m,t}$ is market return in time t;

C_t is market portfolio quotation in time t (IBOVESPA);

C_{t-1} is market portfolio quotation in time t-1 (IBOVESPA).

Calculation was performed using the Ordinary Least Squares (OLS) as a simple linear regression, formatted as follows:

$AR_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_i$	(3)
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Where,

β – represents the inclination of linear model given by the ration between covariance and returns (Company and market) and market return variance.

α – represents the intercept that, operationally, is the average difference between the dependent variable (Company daily return) and the dependent variable (market portfolio daily return), the last being associated to the estimation of linear model inclination.

AR_{it} - represents a positive or negative surplus. In case it is a substantial surplus, a significant event will occur at level 1%, 5%, or 10%.

$R_{m,t}$ - market return in time t;

Abnormal return and expected return were calculated for the days within event time frame, being 5 days before, the event day, and 5 days later. The criterion used for examining abnormal return I (AR_{it}) in a given date was performed by means of statistical inference and abnormal return significance level was calculated by means of a t test. This calculated t test is compared to table t . To reach t test the abnormal return (AR_{it}) is split into each of the time frame days by standard deviation regression. The result is a positive or negative number represented by t test calculated, which evaluation of the presence or absence of statistical significance depends on t score obtained.

For abnormal return calculation the Model of Returns Adjusted to Risk and Market was selected to the present study. This model assumes the assets returns are independent and identically distributed along time (Takamatsu et al., 2008).

IBOVESPA – Index of São Paulo Stock Exchange is the market index used in the present study because researches on securities abnormal return in Brazilian capital market have adopted that index as the most used one (Assaf Neto, 2008; Sarlo Neto, 2004; Terra & Lima, 2006). Takamatsu et al. (2008) state IBOVESPA shows the behavior of the main assets negotiated in BM&FBovespa, current B³ Brasil, Bolsa, Balcão, and one of its aims is serving as a tool to indicate market behavior. Shares composing IBOVESPA theoretical portfolio represent over 80% of business total and financial volume observed in market at sight.

3.4 Population and Data Collect

Research population contemplates all open capital Brazilian Companies belonging to the Index of São Paulo Stock Exchange (IBOVESPA) which had a Pension Fund among their stakeholders and had CEO turnover in the time frame of the research. Companies from the financial sector were not excluded from the company because their object is not impacted by peculiarities of the capital structure of those Companies. The time frame covered by the research was from 2010 to 2014, in a total of 5 years.

Del Guercio & Tkac (2002) state that capital market splits investors in two big groups: sophisticated investors and naïve investors. Researches low costs allow large institutional investors to use more sophisticated evaluation and pricing tools. Fletcher (1988) explains the sophisticated investor tends to prevent common mistakes small investors make when stating they have plenty of resources and have professionals trained in the best business schools in the world, besides a significant expertise in capital market. Hand (1990) complements that position when stating institutional investors have a better evaluation of profits disclosed while being more able to identify systematic deviations in profit.

Boehmer e Kelley (2009) state institutional investors are more efficient in processing available information. Pension Funds integrate the group of institutional investors in face of the volume of resources they manage. In 2015 Pension Funds' assets represented approximately 12.2% of the Gross domestic Product – PIB. It is estimated that participation will rise to 40% in 20 years (ABRAPP, 2015; 2017). In Netherlands, total Pension Funds assets in 2010 represented 132% of the PIB. That was the higher participation in the world proportionally to PIB in that country (De Dreu & Bikker, 2012). These findings show that Pension Funds are big players in capital market scenario and the participation of these big players fundaments the choice for object population in this research.

Population data were collected in two different ways. Firstly all open market Brazilian Companies included in the Index of São Paulo Stock Exchange (IBOVESPA) that had CEO turnover in the time frame of the research were identified. Secondly, which of those Companies had a close Pension Fund among stakeholders. All Companies fulfilling such criteria are object of the research. Data for establishing population were obtained by means of a research in the Reference Form of each Company, available in the BM&FBovespa website. This form is an electronic yearly document with compulsory remittance to the Securities and Exchange Commission B³ Brasil, Bolsa Balcão.

Data collect on CEO turnover contemplates yearly information. Turnover identification happened by means of comparing information from year t to information from year t_{-1} . However, due to the fact that the research contemplates yearly data, the risk of existing more than one turnover along the year with no identification of such change is admitted. Such risk is low and mitigated since CEO turnover is not a frequent or ordinary event due to the consequences the change can trigger.

Bloomberg® data basis was used to obtain shares market index and the respective quotation within the estimation and event time frames. After collecting the variables needed for models studied, linear regression was adopted, with the assistance of software *MS Excel*, *SPSS* e *Gretl*.

News related to CEO turnover were researched on *Bloomberg®* data basis since it is a news agency focused on corporate world, located in New York, operating all over the world. Besides consolidating Companies data this agency replicates news disclosed in specialized magazines and, when applicable, associate them to a given Company in their data basis. Information was complemented with researches in media like *Exame*, *ComDinheiro*, and *Valor Econômico*, with confirmatory or complementary character.

3.5 Test Hypotheses

Research hypothesis guiding the present study predicts there is an abnormal return as a function of the motivations disclosure intensity substantiated the major executive exit in open Companies with corporate interest of Pension Funds. Clayton et al. (2005) state returns volatility is higher when disclosures are related to the forced exit when compared to disclosures of volunteer exit. Campbell, Gallmeyer, Johnson, Rutherford, & Stanley (2011) found a strong relation between CEO forced turnover probability and his optimism level. High or low optimism CEOs are more prone to forced turnover than moderate optimistic ones. Forced exits are associated to uncertainties about possible changes in Company's strategy and future perspectives, while firing tends to signalize the existence of problems. In face of this the test hypothesis is established that:

H1: There is significant, positive relation between abnormal return and CEO turnover motivation disclosure intensity in open Companies with corporate interest of Pension Funds.

Intintoli (2013) states returns volatility is lower when announcements relate to volunteer exit. Volunteer exits are not usually associated to problems existing in the Company and are a sign of normality, especially when exit is preceded by a significantly advanced announcement or the CEO goes to the Board of Administration. In this case there is the following hypothesis:

H2: There is significant, negative relation between abnormal return and CEO turnover motivation disclosure intensity in open Companies with corporate interest of Pension Funds.

4 DATA DESCRIPTION AND ANALYSIS

Initially, Table 1 presents companies composing research population for each CEO turnover event.

Table 1: Population composition

COMPANIES	EXCHANGE SECTOR	ACTIVITY SECTORS	DISCLOSURE DATES
COPEL	N1	Utility services	2010/12/27
ELETROBRAS	N1	Utility services	2011/02/07
VALE	N1	Materials	2011/03/31
OI	N1	Telecommunication Services	2013/01/22
OI	N1	Telecommunication services	2013/06/04
CIA BRAS. DE DISTRIBUIÇÃO	N1	Basic commodities	2014/04/16
FORJAS TAURUS	N2	Industrials	2011/08/10
CELESC	N2	Utility services	2013/01/17
SARAIVA	N2	Discretionary commodities	2013/04/25
FORJAS TAURUS	N2	Industrials	2013/11/18
LUPATECH	NM	Energy	2011/08/31
ROSSI RESIDENCIAL	NM	Discretionary commodities	2011/09/13
MARFRIG	NM	Basic commodities	2012/01/30
ESTACIO PARTICIPACOES	NM	Discretionary commodities	2012/03/13
PDG REALTY	NM	Discretionary commodities	2012/08/08
PARANAPANEMA	NM	Materials	2012/12/14
TIM PARTICIPACOES	NM	Telecommunication services	2013/02/06
LOCALIZA RENT A CAR	NM	Industrials	2013/04/17
GRENDENE	NM	Discretionary commodities	2013/04/25
ULTRAPAR PARTICIPACOES	NM	Energy	2013/05/15
BRF	NM	Basic commodities	2013/10/17
BRASIL PHARMA	NM	Basic commodities	2014/03/10
DURATEX	NM	Materials	2014/03/24
JHSF PARTICIPACOES	NM	Financial services	2014/04/30
GAFISA	NM	Discretionary commodities	2014/05/05
QUALICORP	NM	Health assistance	2014/05/22
BRF	NM	Basic commodities	2014/08/13
CYRELA BRAZIL REALTY	NM	Discretionary commodities	2015/05/02
ALL AMERICA LATINA LOGISTICA	Basic	Industrials	2010/08/31
DIAGNOSTICOS DA AMERICA	Basic	Health assistance	2011/04/11
PETROBRAS	Basic	Energy	2012/01/24
BCO SANTANDER (BRASIL)	Basic	Financial services	2013/04/29
DIAGNOSTICOS DA AMERICA	Basic	Health assistance	2014/12/22

Source: authors (2016)

It is seen that most companies with CEO turnover during research time frame, with Pension Funds among stakeholders, integrated levels of Corporate Governance in New Market (NM), Level 1 (N1) and Level 2 (N2) in the BM&FBovespa, currently B³ Brasil, Bolsa Balcão. With regards to CEO turnover events from 2010 to 2014, the research found 81 events which are summarized in Table 2:

Table 2: Summary of Events Studied

Criterion Detail	Total
Total CEO turnover with average participations on 1,260 trading floors	81
(-) Turnover exclusions for lack of share liquidity	(16)
Total turnover with share liquidity	65
(-) Companies with no disclosure of turnover motivations	(32)
Total CEO turnover from Companies with liquidity and news disclosure	33

Source: authors (2016).

From the 81 events observed, 16 were excluded because referred to Companies which share did not have liquidity enough for analyzing returns, remaining for analysis 65 events in the time frame approached. It was found that the media researched did not report news about the motivation for 32 turnovers.

Analysis was split into two different moments: firstly the correlation between the Index of Disclosure Intensity of CEO Turnover Motivations News and Abnormal Returns aiming at testing the first study hypothesis that says there is significant, positive relation between abnormal return and CEO turnover motivation disclosure intensity in open Companies with corporate interest of Pension Funds. Following, correlations between turnover motivations and abnormal returns were presented aiming at testing the second study hypothesis that says there is significant, negative relation between abnormal return and CEO turnover motivation disclosure intensity in open Companies with corporate interest of Pension Funds.

4.1 Correlation Between CEO Turnover Motivations Disclosure Intensity and Abnormal Returns

An Index of Motivations Disclosure Intensity was used for identification of CEO turnover motivation intensity, composed by 11 encoded propositions considering the number of times a new was published; media used for disclosure; exclusivity of the fact; if the media used belonged to economics area; and if the new anticipated the Board meeting, according to Table 3.

Table 3: Turnover Index of Motivations Disclosure Intensity

MOTIVATIONS	Number of news	More than one new disclosed	New is published in Bloomberg	New is published in Bloomberg and other media	There is more than one new in the same day	Same new is repeated in Bloomberg in more than one day	There are news in Bloomberg in more than one day and in other media	New about CEO turnover is exclusive	New has a headline on CEO turnover	The same new is published in other media in the same date	Media is specialized in economy area	New is dated differently from the Board meeting on CEO turnover
FORCED DIMENSION												
Economic, Financial, or Strategic Unsatisfactory Performance	32	0.88	0.34	0.19	0.59	0.16	0.00	0.94	1.00	0.47	0.94	1.00
Leave the position to stay only in the Board of Administration	20	0.60	0.20	0.05	0.25	0.00	0.05	0.90	0.95	0.15	0.95	1.00
Caused by Political Government Changes	8	0.63	0.63	0.13	0.25	0.25	0.00	0.88	0.75	0.25	0.75	1.00
Caused by New Regulations in the Financial System	2	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00
Due to Board Restructuration	3	1.00	0.33	0.33	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00
VOLUNTEER DIMENSION												
Due to retirement	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00

Source: Matos e Colauto (2017).

Kuder-Richardson-20 was used to test reliability of turnover index of motivations disclosure intensity, presenting 0.638 as a result. That result indicates there is internal consistency of the instrument, considering in some investigation scenarios, for example Social Sciences, a 0.6 KR-20 is acceptable (Maroco & Garcia-Marques, 2006).

According to Gujarati & Porter (2011) the basic aim of a correlation analysis is measuring intensity or degree of linear association between two variables. It is seen that the correlation coefficient takes values ranging from -1 and +1. When the correlation coefficient is higher than zero and lower than 1 ($0 < r < 1$) that means variables are associated and vary in a direct way, that is, when one of them increases the other follows the same direction, showing a positive linear correlation. When the result is close to +1 it means there is a strong correlation between variables, considered as a close-to-perfect correlation. In the opposite, when the coefficient comes close to zero it means correlation is weak, showing variables have certain independence. Finally, when coefficient equals zero it means there is no correlation between variables (Stevenson, 2001). Correlations analyses

serve as a preliminary reference of existing relations among variables.

In this research there was investigated whether there is a correlation between CEO turnover motivation disclosure intensity and abnormal returns. The intention was evaluating whether motivation disclosure intensity was associated to abnormal returns when CEO change was disclosed. Table 4 presents the Spearman correlation matrix between variable IDM – Index of Disclosure Intensity of CEO Turnover Motivations and abnormal returns in the events time frame:

Table 4: Correlation between IDM and Abnormal Returns

DAY	IDM	SIG
t-5	-.055	.624
t-4	-.103	.355
t-3	-.103	.355
t-2	.040	.722
t-1	-.139	.209
t ₀	.216*	.049
t+1	-.062	.575
t+2	.118	.287
t+3	.198	.072
t+4	-.126	.258
t+5	-.038	.734

Source: authors (2019).

*Significance at level 5%; ** Significance at level 1%;

IDM= Index of Disclosure Intensity of CEO Turnover Motivations

Correlation matrix shows the CEO turnover disclosure intensity has a positive correlation with abnormal returns at significance level of 5% the day the turnover was disclosed (t_0). Thus the first test hypothesis, that says there is significant, positive relation between abnormal return and CEO turnover motivation disclosure intensity in open Companies with corporate interest of Pension Funds, cannot be rejected.

It is highlighted that news published on Bloomberg® platform reaches a specific public, investors, who tend to react to the news that are disclosed. In face of this, it was seen if turnover new was disclosed in Bloomberg® platform. The result showed CEO turnover “Caused by Political Government Changes” was the most disclosed in the platform. The result shows CEO importance in management of Brazilian Companies controlled by Public Administration and their impact on Gross Domestic Product.

It was considered the new had a lower repercussion on turnover when it was not published in Bloomberg® and another specialized media simultaneously. The CEO turnover motivations in Forced Dimension less published in Bloomberg® simultaneously with other media were “Leave the position to stay only in the Board of Administration” and “Caused by New Regulations in the Financial System”. The appearance of fresh news in a quick way on corporate media shows the dynamics of corporate world. Due to such rapidness, news tends to live briefly. When the same news is repeated in more than one day in Bloomberg® data basis it denotes to be more important than when it is disclosed only one day. But only motivations “Performance” and “Caused by Political Government Changes” had the same news disclosed in more than one day in Bloomberg® data basis.

When the news about change was published in Bloomberg® simultaneously with other specialized media, in more than one day, it means it was considered more important among the oth-

ers. In this research only motivation “Leave the position to stay only in the Board of Administration” was simultaneously published one day in Bloomberg® and other specialized media, showing a given ephemerality of corporate news.

Although news can be exclusive, its headline can contain a call-out for another less important aspect. When news has a headline on turnover that means media wants to catch reader attention in a larger proportion than if the headline was evasive. Except for motivation of Volunteer Dimension, all other motivations presented a high intensity index of news with specific headline on CEO turnover. This finding is coherent with the exclusivity of news about the event. Disclosing the same news in several media at the same time shows a higher repercussion on the event. But only scarce news had such feature.

News usually addresses a given audience. News about turnover published in media towards investors can generate an impact on market in a faster way due to spread than if it was disclosed in media addressing other audience. Research showed most news was published in media oriented to economics area, which are highly accessed by institutional investors.

When news about change was published to the market in advance with regards to the date of Board meeting, which formalizes CEO exit, it is presumed that the Company tried to avoid market speculations and hence minimize shares volatility. Volunteer Dimension presented a low index of disclosure intensity, showing poor interest from media when the change is featured as normal. The only motivation found for CEO turnover in Volunteer Dimension was CEO leaving for exit purposes.

4.2 Correlation between CEO turnover Forced and Volunteer Dimensions and Abnormal Returns

It was also aimed to evaluate if abnormal returns are associated to turnover motivations. In this way, Table 5 presents *Spearman* correlation matrix for motivations with Abnormal Returns.

7 In this study, social capital was considered as a part of relational capital.

Table 5: Correlation between turnover motivations and Abnormal Returns

		Mot1	Mot2	Mot3	Mot4	Mot5	Mot6
Mot1	Correlation	1.000					
	Sig. (2-tailed)						
Mot2	Correlation	-.552**	1.000				
	Sig. (2-tailed)	.000					
Mot3	Correlation	-.282**	-.432**	1.000			
	Sig. (2-tailed)	.010	.000				
Mot4	Correlation	-.116	-.178	-.091	1.000		
	Sig. (2-tailed)	.295	.108	.414			
Mot5	Correlation	-.066	-.101	-.052	-.021	1.000	
	Sig. (2-tailed)	.551	.361	.641	.848		
Mot6	Correlation	-.135	-.207	-.106	-.044	-.025	1.000
	Sig. (2-tailed)	.223	.061	.342	.696	.824	
t-5	Correlation	-.014	-.026	.025	.287**	.101	-.258*
	Sig. (2-tailed)	.901	.818	.825	.008	.365	.019
t-4	Correlation	.180	-.250*	.238*	-.078	-.115	-.091
	Sig. (2-tailed)	.104	.023	.030	.481	.299	.412
t-3	Correlation	-.119	-.083	-.032	.317**	.095	.172
	Sig. (2-tailed)	.282	.454	.776	.003	.392	.120
t-2	Correlation	-.212	.354**	-.038	-.205	.035	-.157
	Sig. (2-tailed)	.055	.001	.730	.063	.753	.155
t-1	Correlation	-.156	-.146	.232*	.206	-.005	.070
	Sig. (2-tailed)	.158	.187	.035	.061	.966	.532
t0	Correlation	-.155	.358**	-.078	-.274*	.083	-.178
	Sig. (2-tailed)	.162	.001	.485	.012	.457	.107
t+1	Correlation	-.035	.336**	-.315**	-.269*	-.007	.094
	Sig. (2-tailed)	.753	.002	.004	.014	.949	.399
t+2	Correlation	.038	.155	.076	-.216*	-.026	-.374**
	Sig. (2-tailed)	.730	.162	.496	.050	.819	.000
t+3	Correlation	.186	-.008	-.392**	.213	.050	.129
	Sig. (2-tailed)	.092	.940	.000	.053	.653	.246
t+4	Correlation	-.099	-.052	.217*	-.151	.153	-.010
	Sig. (2-tailed)	.372	.638	.049	.173	.167	.930
t+5	Correlation	.064	.110	.099	-.299**	-.154	-.226*
	Sig. (2-tailed)	.564	.322	.374	.006	.164	.040

Source: authors (2019).

*Significance at level 5%; ** Significance at level 1%; Mot1= Stay only in the Board of Administration; Mot2= Performance; Mot3= political Government Change; Mot4= Board Restructuration; Mot5= Exit; Mot6= Regulation of Financial System.

Turnover caused by “Performance” presented significant negative correlations in the disclosure day and the day right after. Such fact predicts market had a positive evaluation of the exchange. Market had a negative reaction to the announcement triggered by the “Political Government Change” one and three days after disclosure, recovering later on the fourth day. Company that had turnover due to “Board Restructuration” presented statistically significant abnormal returns be-

fore change disclosure. But market did not evaluate such change well because, after the announcement, except for the third day, there were statistically significant negative abnormal returns in all remaining days in the events time frame.

Results showed that in CEO turnover Forced Dimension statistically significant positive and negative abnormal returns occurred at reliability levels of 99% and 95%. Such results converge to Cheung & Jackson (2012) research that found strong evidence that volatility level increases after CEO turnover disclosure and the increase is significantly higher when exits are forced when compared to volunteer exits. Results are consistent as far as forced exit transmit information so far unknown to market. Accumulated abnormal returns are also more negative to a forced exit.

Forced Dimension was that presenting motivations with higher turnover disclosure intensity indexes. Proposition “More than one News Disclosed” presented an average disclosure index of 0.76. It means most CEOs changes had more than one new disclosed. Motivations “Caused by New Regulations in Financial System” and “Caused by board Restructuration” had an index 1.0. However it is important to highlight that these two motivations had one only event each. With such note, motivation with highest index in this proposition (0.88) was “Performance”. That motivation, with the note mentioned, had the best average (0.59) of the index of CEO turnover news disclosure intensity.

News about major executive turnover can be exclusive, that is, only approach this issue, they can be published among others. The second way shows less perceived importance to the event. The Forced Dimension motivations showed that most news was exclusive on CEO turnover and exceptionally the issue was published among other news.

It was seen that abnormal returns due to volunteer exit caused by “Retirement” did not show statistically significant correlation. So the second test hypothesis stating that there is significant, negative relation between abnormal return and CEO turnover motivation disclosure intensity in open Companies with corporate interest of Pension Funds is rejected because the only volunteer turnover came from the CEO retirement and it did not present statistically significant abnormal returns. This result agrees with those from Intintoli (2013), which state volatility of returns is lower when announcements relate to a volunteer exit. However, the result seen must be read cautious and prudently since one only event occurred.

5 CONCLUSIONS

The study analyzed the relation between abnormal returns in Brazilian capital market and CEO turnover motivations disclosures intensity, based on Efficient Market Hypothesis in its Semi strong form, which defends information will reflect on price behavior. So, share prices would adjust to events occurred, triggered by either good or bad news, as soon as they are available to stakeholders. The analysis of volunteer and forced CEOs turnover news disclosure intensity and shares abnormal return showed, by means of *Spearman* correlation, that significant associations occurred.

Results show that important news about CEO turnover tends to spread more quickly on media due to the intensive use of information technology. So it is natural that it also spreads in other news media reportedly more important. That is how the proposition evaluates if there is more than one new in the same day it was inserted. News on CEO turnover motivations due to “Organizational Restructuration” and “Performance” were more disclosed because they had more than one new about the same issue in the same day.

Parametric tests showed there were statistically significant abnormal returns within the event time frame, before the announcement date, on the announcement date, and after the announcement date. These findings agree with the results from Kos at. al. (2017) studies that disclo-

sure of relevant events can influence market and generate abnormal returns. Results found also converge to those from Machado et al. (2013) where it was seen that disclosure of relevant facts about directors change interfere on Brazilian open capital companies share prices. Results found by authors that refer to the time frame from 2010 to 2012 present signs that the disclosure of facts related to changes among directors can cause returns to be abnormal.

The occurrence of statistically significant abnormal returns before the announcement day could indicate the possibility of existing insider information, a common fact given Brazilian capital market features.

It was seen that abnormal returns triggered by volunteer exit due to “Retirement” did not show a statistically significant correlation, rejecting the second hypothesis that abnormal return is influenced by news disclosure intensity about volunteer turnover. Results also showed significant negative correlations before the date of announcement and positive significant correlations on the announcement day and the day right after among abnormal return, showing market had a positive evaluation of the change, but had a negative reaction to the announcement triggered by “Political Government Change” the next day and three days after the announcement.

There is a time limitation in this research as far as the time frame of the analysis corresponds to 2010 through 2014. It is possible that results obtained during other time frames could present different results than those found. This perspective comes from the possible variations in market behavior, which can be influenced by the existence of other relevant events, but in a different economical, political, or social context. It is also possible to admit the existence of an endogenous or exogenous that is not a part in the present study but have potential to influence the share return of Companies included in the research population.

The research only covered Brazilian capital market and the fact that it has features proper to a low-liquidity market in which property is concentrated cannot be ignored (Lopes & Martins, 2007) and such circumstance can influence abnormal returns. Considering that companies included in the population are those in which there was the participation of a closed Pension Fund in its capital, the possibility of other results occurring in case all open capital companies were contemplated is admitted. So, it is suggested for future researches to enlarge the scope by including Companies that do not Pension Funds in their corporate structure. Extending the research to other emerging markets in order to enlarge the universe to be researched and then allow comparisons about agent’s reaction in different countries at CEO turnover disclosure and check the relation between motivations disclosure intensity and abnormal returns. It is also suggested to deepen research with regards to activism of Regulated Institutional Investors in emerging countries capital market, especially Pension Funds and their behavior in different environments in face of the regulation they are submitted to. It is also suggested to evaluate the impact that eventual regulatory changes established by Regulation Organs can generate on resources application managed by Pension Funds.

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2. Development of hypotheses or research questions (empirical studies)	X	
3. Development of theoretical propositions (theoretical work)	X	X
4. Theoretical foundation / Literature review	X	
5. Definition of methodological procedures	X	X
6. Data collection	X	X
7. Statistical analysis	X	
8. Analysis and interpretation of data	X	X
9. Critical revision of the manuscript		X
10. Manuscript writing	X	X
11. Other (please specify)	-	-