

## **THE MODERATING EFFECT OF CEO NARCISSISM ON PAY-PERFORMANCE SENSITIVITY**

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### **Resumo**

Grounded on the view that CEO individual characteristics, such as CEO narcissism, may shed a light in why CEO compensation is decoupled from firm performance, this first paper of the thesis aims to investigate the moderating effect of CEO narcissism on the pay-performance sensitivity. Thus, fills a gap in the literature on CEO's personality traits and executive compensation, which do not explore that executive compensation must be tied to firm performance to be viewed as a corporate governance mechanism. To test our hypothesis, we will use a sample of 3,711 U.S. firms, during the period 2002-2019, employing regression analysis (GMM-System) due to the endogenous relationship between CEO compensation and firm performance. The data will be collected through Thomson Reuters Eikon StreetEvents (CEO Narcissism), ExecuComp (CEO compensation), Compustat (accounting-based performance measures), and CSRP (market-based performance measures). Our study may contribute to shareholders and potential investors since if CEO narcissism positively moderates the relationship between CEO compensation and firm performance, it will align CEO interests for higher levels of compensation with shareholders' interests for better firm performance. Furthermore, our study could be useful for boards, as they could consider this psychological aspect when proposing compensation schemes to CEOs.

Palavras-chave: Corporate governance; CEO narcissism; Pay-performance sensitivity.

**THE MODERATING EFFECT OF CEO NARCISSISM ON PAY-PERFORMANCE SENSITIVITY**

**Thematic area:** Financial Accounting and Finance (CFF)

**1 Problem, Objectives and Research Question**

Executive compensation schemes, when tied to firm performance, can be viewed as one of the corporate governance mechanisms that disciplines and motivates the managers, closely aligning their interests for higher levels of compensation with shareholders' interests for higher wealth (Jensen & Murphy, 1990). However, meta-analyses of pay-performance researches (Tosi, Werner, Katz, & Gomez-Mejia, 2000; Van Essen, Otten, & Carberry, 2015) confirm the inexistence of a consistent relationship between executive compensation and firm performance.

As a way to rethink research, theory, and practice in this field, Capezio, Shields and O'Donnell (2011) propose more integrative and multi-theoretical approaches, considering the insights afforded by behavioral and social-cognitive areas to better understand why CEO compensation is decoupled from the firm performance. This view is also supported by Aguinis, Gomez-Mejia, Martins and Joo (2018), which suggests that CEO individual differences and characteristics — such as narcissism — may play an important role in the pay-performance relationship.

Due to the narcissists' inflated sense of their own performance (Roberts, Woodman, & Sedikides, 2018), focus on personal rewards (Buyl, Boone, & Wade, 2019), exaggerate beliefs about their abilities and accomplishments (Buchholz, Jaeschke, Lopatta, & Maas, 2018) think that are better than others (Roberts et al., 2018) and propensity to pursue risky strategies due to the grandiosity (Buyl et al., 2019), it is possible that CEO narcissism influence positively on the pay-performance sensitivity. This implies that CEO narcissism can be viewed as a “bright side” in the design of executive compensation, closely aligning CEOs' and shareholders' interests.

However, based upon the behavioral agency model view that the heavy reliance on outcome performance criteria might be framed as a loss context since the CEO seldom has full control over it (Aguinis et al., 2018), it is also possible that CEO narcissism influence negatively on the pay-performance sensitivity. This view is also supported by the view that narcissists CEOs are often unwilling or unable to take responsibility for the negative events that occur in their management (Reina, Zhang, & Peterson, 2014).

Based on these two possible effects, our research question is how CEOs' narcissism influence on the pay-performance sensitivity? Thus, this study aims to investigate the moderating effect of CEO narcissism on the pay-performance sensitivity.

**2 Study relevance**

We consider that it is relevant to examine the moderating role of CEO narcissism on the pay-performance sensitivity since the major of the current literature about executive compensation design ignores behavioral issues (Pepper & Gore, 2015). Thus, we fill a gap in the literature concerning explanations for the low (or non-significant) pay-performance sensitivity (Tosi et al., 2000; Van Essen et al., 2015).

This avenue may allow us to better understand whether CEOs psychological characteristics play a role in the design of executive compensation, being relevant for shareholders and potential investors since if CEO narcissism positively moderates the relationship between CEO compensation and firm performance, it will align CEO interests for higher levels of compensation with shareholders' interests for better firm performance. Furthermore, our study could be useful for boards, as they could consider this psychological aspect when proposing compensation schemes to CEOs.

### 3 Study limitations and delimitations

Considering that there are different measures to capture the CEOs' subclinical levels of narcissism as a personality trait rather than a personality disorder, such as CEO signature size and CEO photograph size, we consider that employ only one measure (the ratio of the use of first-person singular pronouns to total first-person pronouns) to capture CEO narcissism is a limitation. As delimitation, we highlight that the U.S. market offers an opportunity to examine the moderating effect of CEO narcissism on the pay-performance sensitivity since the publicly-traded companies report, separately, the CEO compensation amounts, different from other capital markets, such as Brazil, in which the executive compensation amounts are not reported individually, but in groups (e.g., executive board, board of directors, and fiscal committee).

### 4 Theoretical framework

The Behavioral Agency Theory provides a framework for theorizing about the relationship between agent behavior and the design of executive compensation plans, considering that major of the current literature about executive compensation design ignores behavioral issues. Thus, it brings novel assumptions of agents' utility function, which is subject to constraints relating to bounded rationality, intrinsic and extrinsic motivation, loss aversion, and uncertainty (Pepper & Gore, 2015).

In this vein, as a personality trait that has both cognitive and motivational elements (Chatterjee & Hambrick, 2007), the narcissism has recently emerged as a topic of interest in executive compensation researches, which shows that narcissistic CEOs enjoy higher absolute and relative compensation (O'Reilly, Doerr, Caldwell, & Chatman, 2014; Ham, Seybert, & Wang, 2018).

However, these results might not be framed as a "dark side" of CEO narcissism since if CEO narcissism positively moderates the relationship between CEO compensation and firm performance, it will align CEO interests for higher levels of compensation with shareholders' interests for better firm performance. In this sense, it seems that one avenue that has not been examined by O'Reilly et al. (2014) and Ham et al. (2018) is the moderating role of CEO narcissism on the pay-performance sensitivity.

Prior literature shows that narcissistic CEOs also tend to pursue grandiose projects, which could lead to risky strategies (Buyl et al., 2019). Thus, a given strategy that is seen as infeasible, or very risky by most CEOs, might be seen in a positive light by the highly narcissistic CEO (Chatterjee & Hambrick, 2007), such as closely align their compensation to firm performance.

This may occur due to the narcissists' self-image of superior abilities that will lead to relative optimism and confidence in positive organizational outcomes (Chatterjee & Hambrick, 2007). Hence, due to the narcissists' inflated sense of their own performance (Roberts et al., 2018), focus on personal rewards (Buyl et al., 2019), exaggerate beliefs about their abilities and accomplishments (Buchholz et al., 2002), think that are better than others (Roberts et al., 2018) and propensity to pursue risky strategies due to the grandiosity (Buyl et al., 2019), our main prediction is that CEO narcissism has a positive influence on the pay-performance sensitivity.

However, in an alternative way, we do not disregard the possibility of a negative effect of CEO narcissism on the pay-performance sensitivity. This view is based upon the view that the heavy reliance on outcome performance criteria might be framed as a loss context since the CEO seldom has full control over it (Aguinis et al., 2018), and that narcissists CEOs are often unwilling or unable to take responsibility for the negative events that occur in their management (Reina et al., 2014).

Due to these two possible effects, we formulate the following bi-directional hypothesis:

**H<sub>1</sub>:** CEO narcissism influence on the pay-performance sensitivity.

### 5 Method

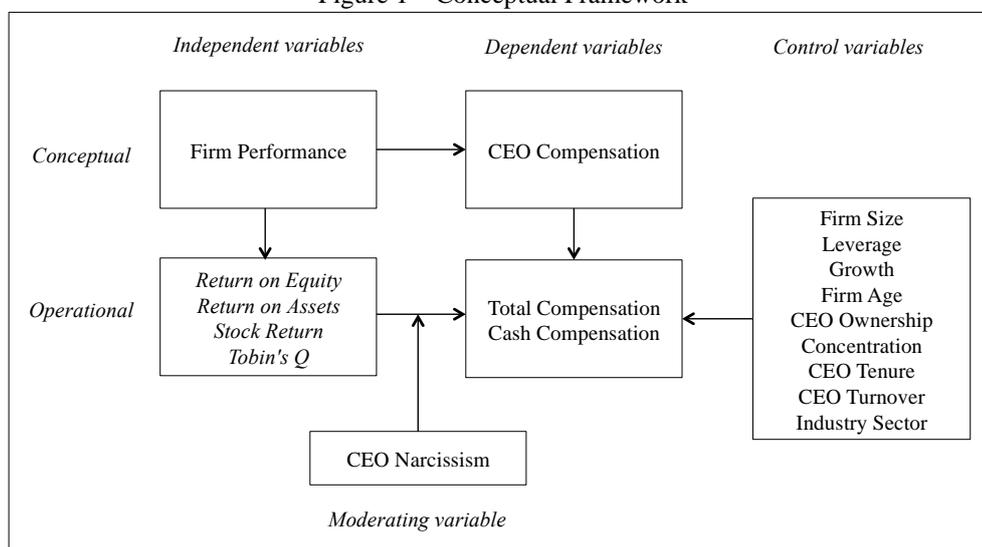
Our initial sample consists of 3,711 U.S. public firms, with available data between 2002 and 2019. The data collection begins in 2002 since the earnings releases conference calls transcripts are first available from Thomson Reuters StreetEvents.

Consistent with previous studies, we exclude financial, insurance and real estate firms (SIC 6000-6799) due to their specific financial and operating structures, which may provide distortions in the accounting-based performance measures.

The variables used in this study are from the following sources. CEO compensation data are from Compustat Executive Compensation (ExecuComp), CEO narcissism data are from earnings releases conference calls available in Thomson Reuters Eikon, accounting-based performance measures are from Compustat, and market-based performance measures are from the Center for Research in Security Prices (CSRP).

Our conceptual framework to examine the moderating effect of CEO narcissism on the pay-performance sensitivity is presented in Figure 1.

Figure 1 – Conceptual Framework



Adapted from Libby, Bloomfield and Nelson (2002).

Prior literature posits a simultaneous relationship between firm performance and executive compensation. On the one hand, the positive influence of firm performance on executive compensation may reduce potential agency conflicts (Ataay, 2018). On the other hand, executive compensation may act as a mechanism of motivation, stimulating managers to obtain a superior performance (Aguiar & Pimentel, 2017).

To control this simultaneity effect of firm performance and executive compensation, we run the models using a System Generalized Method of Moments (SYS-GMM) regression. Further, considering the premise that executive compensation paid in a given year may be usually determined by previous years' firm performance (Aguiar & Pimentel, 2017), we also perform additional models using one-year lagged variables ( $t-1$ ).

In line with the extant literature in psychology, accounting and finance (Capalbo et al., 2018; Chatterjee & Hambrick, 2007; DeWall, Buffardi, Bonser, & Campbell, 2011; Raskin & Shaw, 1988), we use the ratio of first-person singular pronouns (I, me, my, mine, myself) to total first-person pronouns (I, me, my, mine, myself, we, us, our, ours, ourselves) to capture CEOs subclinical levels of narcissism as a personality trait. However, to better capture the moderating effect of CEO narcissism (*difference* effect) on the pay-performance relationship, we segregate the narcissism score of each CEO into low (first tertile), moderate (second tertile) and high (third tertile) narcissism levels, similar to D'Souza, Lima, Jones, and Carré (2019).

The first-person pronoun use is useful to capture narcissism because pronouns offer rich information regarding how individuals draw attention to themselves and distinguish themselves from others, showing their positive and inflated sense of self (DeWall et al., 2011). Thus, considering that earnings announcements are a platform to CEOs projects the corporation as himself by its discourse and to have its skills and self-believed affirmed by investors (Capalbo et al., 2018), we use the question-and-answer sessions of earnings releases conference calls available in Thomson Reuters EventStreets database to measure CEO narcissism.

To calculate the CEO narcissism, we use natural language processing (NLP) through Tokenizers package in RStudio, which count the number of first-person pronouns for each CEO, in each year, based on the transcripts for fourth-quarter results.

## 6 Contribution and expected impact

Our paper contributes to the literature in the following ways. First, to the best of our knowledge, we provide the first empirical evidence of the moderating effect of CEO narcissism on the pay-performance sensitivity, considering that major of the current literature in executive compensation ignores the agent behavioral aspects on the design of executive compensation plans (Aguinis et al., 2018; Pepper & Gore, 2015).

Second, we shed light in one “bright side” (“dark side”) effect of CEO narcissism by positively (negatively) aligning the CEO compensation to firm performance. This contribution expands prior literature in CEO narcissism and executive compensation (O'Reilly et al., 2014; Ham et al., 2018), which do not explore that if CEO narcissism positively (negatively) moderates the pay-performance relationship, it will align (not align) CEO interests for higher levels of compensation with shareholders' interests for better firm performance.

Third, we also expand the discussion about the low positive pay-performance sensitivity (or non-significant) documented by prior literature (Tosi et al., 2000; Van Essen et al., 2015), suggesting that this might be partially due to the psychological and observable characteristics of CEOs, which play a role in the design of executive compensation.

In this vein, as a practical implication, our study contributes to shareholders and potential investors by showing that CEO narcissism increases (reduces) the propensity of aligning the interests of managers for higher levels of compensation with their interests for better firm performance, reflecting (not reflecting) the recommended corporate governance practices. This novel finding also may be useful for boards, as they could consider this aspect when proposing compensation schemes to CEOs.

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