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CRCMG CONSELHO REGIONAL DE CONTABILIDADE DE MINAS GERAIS

CEO NARCISSISM AND REAL ACTIVITY MANAGEMENT

NARCISISMO DO CEO E GERENCIAMENTO POR ATIVIDADES REAIS

This article was accepted and presented at the XVII Congresso ANPCONT, held from November 29 to December 1, 2023, in São Paulo, Brazil.

ABSTRACT
This study aims to examine the influence of narcissistic Chief Executive Officers (CEOs) on real earnings management. The analysis is based on a sample of 111 companies, comprising 543 firm-year observations of publicly traded firms listed on B3 (the Brazilian Stock Exchange). CEO narcissism was measured using a linguistic approach, calculating the proportion of first-person singular possessive and personal pronouns relative to the total use of first-person pronouns in CEOs' speech during earnings conference calls. Earnings management was evaluated using the three models proposed by Roychowdhury (2006), which detect manipulation through operational cash flow, production costs, and discretionary expenditures. To test the proposed hypotheses, panel data modeling was employed using Generalized Least Squares (GLS), with corrections for heteroscedasticity and autocorrelation. The findings indicate that CEOs exhibiting higher levels of narcissism, particularly when serving on the board of directors, are more likely to engage in earnings management through operational cash flow and discretionary expenses. The results also suggest a substitutive relationship between accrual-based earnings management and real activities manipulation. Moreover, during periods of economic recession, the level of earnings management tends to decline in terms of operational cash flow manipulation, but increases in the manipulation of discretionary expenditures. These findings contribute to corporate governance literature by emphasizing the importance of implementing monitoring mechanisms and adopting more rigorous hiring practices to mitigate potential unethical behavior associated with executive narcissism.

Keywords: Narcissism; Chief Executive Officer; Real activity earnings management

RESUMO
O trabalho tem como objetivo examinar a influência dos CEOs narcisistas no gerenciamento de resultados real. Este estudo preenche a lacuna na literatura ao verificar a interação entre o narcisismo do CEO e a moderação do conselho de administração no gerenciamento de resultados reais. Com uma amostra de 111 empresas listadas na B3, o narcisismo é medido pela proporção de pronomes possessivos e pessoais da primeira pessoa do singular em relação ao total de pronomes da primeira pessoa nas falas dos CEOs durante as teleconferências. O gerenciamento de resultados é avaliado com base nos três modelos de Roychowdhury (2006).Para testar as hipóteses foi utilizado a modelagem em painel Mínimos Quadrados Generalizados (GLS) com correção de heterocedasticidade e autocorrelação. Os resultados evidenciam que CEOs com alto nível de narcisismo, quando participam do conselho de administração, tendem a realizar o gerenciamento de resultados por meio do fluxo de caixa e de despesas discricionárias. Também foi encontrado que o gerenciamento por accruals é considerado um substituto para o gerenciamento real. Ademais, observou-se que, em períodos de recessão econômica, os níveis de gerenciamento de resultados se tornam menores para as manipulações pelo padrão de fluxo de caixa operacional e maiores para as despesas discricionárias. Este estudo auxilia as companhias a terem maior cautela na contratação e na implementação de mecanismos de governança que mitiguem possíveis atitudes antiéticas.

Palavras-chave: Narcisismo; Chief Executive Officer; Gerenciamento de resultado por atividades reais

Niara Gonçalves da Cruz
Doutorado em Controladoria e Contabilidade pela Universidade Federal de Minas Gerais (UFMG). Mestrado em Ciências Contábeis pela mesma universidade (UFMG). Bacharel em Ciências Contábeis pela Universidade Federal de Minas Gerais (UFMG). Docente da Universidade Federal do Maranhão (UFMA). niaragc@hotmail.com https://orcid.org/0000-0003-1559-1686

Renata Turola Takamatsu
Doutorado em Controladoria e Contabilidade pela Universidade de São Paulo (USP). Mestrado em Controladoria e Contabilidade pela Universidade de São Paulo (USP). Bacharel em Ciências Contábeis pela Universidade Federal de Minas Gerais (UFMG). Docente da Universidade Federal de Minas Gerais (UFMG) rettakamatsu@gmail.com https://orcid.org/0000-0003-4423-9024

Fernanda Alves Cordeiro
Doutorado em Controladoria e Contabilidade pela Universidade Federal de Minas Gerais (UFMG). Mestrado em Ciências Contábeis pela mesma universidade (UFMG). Bacharel em Estatística pela Universidade Federal de Minas Gerais (UFMG). fernandaest@yahoo.com.br https://orcid.org/0000-0003-4206-9447

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1. INTRODUCTION

Real earnings management refers to managerial decisions that deviate from normal business practices, with the primary objective of achieving certain financial reporting targets (Roychowdhury, 2006). According to Graham, Harvey, and Rajgopal (2005), managers often prefer real earnings management because it is less likely to be detected by auditors or regulatory authorities, given that such practices can be rationalized as strategic business decisions rather than accounting manipulation.

However, real earnings management can have serious long-term consequences. Actions taken in a given period to inflate profits may negatively affect future cash flows and operational efficiency (Roychowdhury, 2006). Unlike accrual-based manipulation—which primarily affects the informational quality of financial reports—real earnings management has substantive implications, potentially eroding firm value over time.

Given these risks, real earnings management is often associated with decision-makers who prioritize personal interests over the long-term welfare of the firm and its stakeholders. Capalbo et al. (2018) argue that such behavior is characteristic of narcissistic individuals, who may be willing to engage in ethically questionable conduct to bolster their personal image and attract attention.

Narcissism is a multidimensional personality trait characterized by an inflated sense of entitlement, a dominant role in decision-making processes, hypersensitivity to criticism, lack of empathy, and a chronic need for admiration and validation. Narcissistic individuals often perceive themselves as exempt from social norms and regulatory standards, making them more prone to violate rules to serve self-interest (Rhodewalt & Morf, 1995).

To protect their self-image and fulfill their need for external affirmation, narcissistic Chief Executive Officers (CEOs) may be more inclined to engage in unethical behaviors, including earnings manipulation. Understanding how narcissism at the executive level influences corporate behavior is thus critical for anticipating risks to firm performance and reputation.

Nuanpradit (2019) emphasizes the importance of a board structure that prevents managers from privileging short-term financial gains over long-term sustainability and competitiveness. In line with this view, Daily and Dalton (1997) highlight that when CEOs also serve on the board of directors, their discretionary power increases while monitoring effectiveness decreases, potentially enabling opportunistic behavior.

The literature on this subject remains relatively nascent, with empirical investigations primarily focused on firms operating in the United States, Indonesia, and Taiwan (Olsen et al., 2014; Jasman & Murwaningsari, 2018; Phillips, 2019). However, organizational behavior is influenced by cultural and institutional contexts, and findings from one country may not be directly generalizable to another. The Brazilian market, characterized by its unique sociocultural attributes, may influence how narcissistic CEOs engage in real earnings management (Freitas et al., 2020).

Moreover, the literature reveals a gap concerning the interaction between CEO narcissism and governance structures—particularly the moderating role of board membership—in facilitating or constraining real earnings management. Accordingly, this study seeks to contribute to the literature by examining how narcissistic CEOs behave with respect to real earnings management in the Brazilian capital market.

Organizational decision-making typically resides with a limited number of individuals occupying the highest hierarchical levels. The Chief Executive Officer (CEO), positioned at the apex of this structure, holds responsibility for strategic formulation, implementation, and oversight, as well as for the preparation and disclosure of financial statements (Combs, Ketchen, Perryman, & Donahue, 2007). In this context, Hambrick and Mason (1984) developed the Upper Echelons Theory (UET) to explain how executives' personal characteristics influence organizational outcomes. The theory posits that managerial decisions are partially shaped by the psychological and demographic attributes of top executives (Chatterjee & Hambrick, 2007; Hambrick & Mason, 1984).

Against this theoretical backdrop, the present study aims to investigate the influence of CEO narcissism on real earnings management within Brazilian publicly traded firms. The sample comprises 111 companies listed on B3, observed over the period 2010–2019. CEO narcissism is proxied following the methodology of Chatterjee and Hambrick (2007), which operationalizes narcissism through the proportion of first-person singular pronouns used during quarterly earnings conference calls. Real earnings management is captured using three proxies based on the model proposed by Roychowdhury (2006): abnormal operational cash flow, discretionary expenses, and production costs. The relationship between variables is analyzed using a panel data approach through Generalized Least Squares (GLS), with adjustments for heteroscedasticity and autocorrelation.

The main findings indicate that narcissistic CEOs, when they also hold a position on the board of directors, are more likely to engage in real earnings management, particularly through operational cash flow and discretionary expenditures. However, CEO narcissism alone—without board participation—does not significantly influence the adoption of such practices.

2. LITERATURE REVIEW

The Upper Echelons Theory (UET), introduced by Hambrick and Mason (1984), posits that organizational outcomes are, to a considerable extent, a reflection of the personal characteristics of top executives. The theory is grounded in the assumption of bounded rationality and comprises two central ideas: (i) executives interpret strategic situations subjectively, and (ii) these interpretations are shaped by their values, experiences, and personality traits (Hambrick, 2007). Consequently, a firm's strategic behavior tends to reflect the individual characteristics of its CEO (Wang et al., 2015). In this regard, recent literature highlights CEO narcissism as a relevant factor explaining managerial decision-making (Cruz et al., 2024).

Amernic and Craig (2010) conceptualize subclinical narcissism as a personality trait that exists on a continuum and may be present in all individuals to varying degrees. It is marked by a profound disconnect from empathic relationships, such that the narcissistic individual struggles to differentiate the self from others, perceiving the external world as an extension of their own identity.

According to Amernic and Craig (2010), narcissistic individuals set unrealistic goals due to their need for continuous self-affirmation. This desire for recognition and admiration may drive them to engage in unethical behaviors in pursuit of those goals. In this context, regularly published financial statements serve as a strategic tool for narcissistic CEOs to secure external validation and acclaim (Chatterjee & Hambrick, 2007).

Roychowdhury (2006) identifies three abnormal activities through which managers manipulate real operations to manage earnings: (i) abnormal cash flows from operations, (ii) reductions in discretionary expenditures (such as research and development, advertising, and selling, general and administrative expenses), and (iii) excessive increases in production costs.

Abnormal cash flows are typically linked to sales manipulation, whereby managers offer excessive price discounts or ease credit terms to inflate sales figures in the current period (Olsen et al., 2014). While such actions may temporarily boost earnings, they can have adverse consequences in future periods. Once pricing policies return to normal, sales volumes often decline, creating a mismatch in operating results over time (Lin et al., 2020).

Kothari et al. (2015) argue that when firms are unable to report satisfactory financial outcomes, managers may reduce discretionary expenditures to improve short-term earnings. Graham et al. (2005) similarly note that such practices reflect a preference for current-period profit at the expense of long-term competitiveness.

The third mechanism, abnormal production, involves overproduction to reduce per-unit costs, thereby increasing gross margins in the short run (Lin et al., 2020). However, overproduction leads to excess inventory, increases inventory holding costs, and intensifies demands on working capital (Olsen et al., 2014). Roychowdhury (2006) asserts that such a strategy is pursued only when the cost savings from reduced unit costs exceed the additional costs of retaining inventory.

Although these activities may occur within the scope of regular operations, their use beyond normal levels, with the explicit intention of meeting financial targets, constitutes real earnings management (Roychowdhury, 2006).

Table 1 provides a summary of prior studies on real earnings management and CEO narcissism, highlighting sample characteristics and key empirical findings.

Table 1 - Summary of Studies on CEO Narcissism and Real Earnings Management

Author	Sample	Results
Olsen *et al.* (2014)	The sample comprises the largest publicly traded companies in the United States, as listed in the 2010 Fortune 500, totaling 1,118 firm-year observations from 1992 to 2009.	The authors found a statistically significant relationship between abnormal cash flow from operations and abnormal production, and a statistically non-significant relationship with abnormal discretionary expenses. The study found no evidence that CEO narcissism is related to earnings management through accruals.
Jasman and Murwaningsari (2018)	manufacturing firms listed on the Indonesian Stock Exchange between 2013 and 2015, totaling 348 firm-year observations.	Narcissistic CEOs were shown to have a positive and significant effect on real earnings management in relation to operating cash flow and discretionary expenses. In contrast, for the overproduction pattern, the relationship was negative and statistically significant. Regarding the role of internal audit quality, the results suggest that it mitigates the influence of narcissistic CEOs on operating cash flow in the context of real earnings management.
Phillips (2019)	The sample, obtained from the Compustat database, comprises 4,725 firm-year observations spanning the period from 1995 to 2014.	The study finds a positive and significant relationship between CEO narcissism and real earnings management. It further reports that, during periods of economic crisis, the incidence of real activity manipulation is higher. These findings suggest that macroeconomic conditions can influence how narcissistic CEOs engage in earnings management practices.
Lin *et al*. (2020)	The sample consists of publicly traded electronics companies in Taiwan, covering the period from 2015 to 2017.	The most narcissistic CEOs tend to overstate earnings through abnormal production costs. However, the results indicate that more narcissistic CEOs are less likely to engage in earnings management through abnormal discretionary expenses.

Source: Prepared by the author.

The board of directors plays a crucial role in constraining executive discretion. Its primary responsibilities include hiring, evaluating, and compensating the CEO, as well as providing strategic oversight and consultation (Masulis, Wang, & Xie, 2012). In firms where board monitoring is effective, CEOs are expected to justify that their strategic decisions align with shareholders' interests (McNulty & Pettigrew, 1999). Under such governance, discretionary power is restricted, limiting the CEO's ability to pursue self-serving strategies without accountability (Finkelstein, 1992).

However, board oversight can be compromised when the CEO also holds a seat on the board. Nuanpradit (2019) argues that such duality weakens monitoring efficacy, as the CEO gains influence over decisions that directly affect their performance evaluation and remuneration. Additionally, other board members may be reluctant to critique the CEO's actions, particularly in hierarchical or collectivist cultures (Finkelstein & D'Aveni, 1994).

The Fraud Triangle Theory, developed by Cressey (1953), provides a conceptual framework for understanding the conditions under which unethical corporate behavior may arise. The theory identifies three enabling factors: (i) incentive or pressure, such as the need to meet financial targets or conceal poor performance; (ii) opportunity, often arising from weak or absent internal controls; and (iii) rationalization, where individuals justify unethical conduct as acceptable under the circumstances (Murphy, 2012).

Narcissistic executives, particularly those holding board positions, may fulfill all three conditions. They often experience strong incentives stemming from a desire for public admiration and aversion to criticism; they possess opportunities to influence or bypass board oversight; and they tend to exhibit a psychological sense of entitlement, which facilitates the rationalization of questionable behavior. While earnings management is not inherently fraudulent, it may be viewed as a precursor to fraud, as it creates an environment conducive to more serious legal and ethical violations.

3 METHODOLOGY

3.2 Description of the sample

This research is classified according to the objectives of the study and the data collection procedures. In terms of its objectives, the study is descriptive, as it aims to describe the characteristics of a specific population or phenomenon and to examine the relationships among the research variables (Cooper & Schindler, 2003). A longitudinal design is adopted to estimate the hypotheses based on data that vary over time and across firms, while a cross-sectional approach is used to calculate dependent variables derived from cross-sectional data.

From a methodological standpoint, the study adopts a quantitative approach, employing statistical models and econometric techniques to analyze the data (Richardson, 1999). This approach is appropriate for assessing the relationship between CEO narcissism and real earnings management. Therefore, this research is characterized as a descriptive and quantitative study, utilizing documentary data collection.

Regarding data collection procedures, this study qualifies as documentary research, as it relies on secondary data that had not previously undergone analytical treatment (Ferrari, 1982). The target population comprises publicly traded firms listed on B3 – the Brazilian Stock Exchange. The data collection period spans from 2010 to 2019, selected to coincide with the implementation of mandatory disclosure of the Reference Form (as per Instruction No. 480/2009 issued by the Securities and Exchange Commission of Brazil – CVM) and the availability of relevant data at the time of collection.

Initially, all publicly traded firms and their respective CEOs were identified, resulting in a total of 367 companies, based on data extracted from the Economática database on January 5, 2020. Firms in the financial sector were excluded due to the potential distortions caused by industry-specific regulatory frameworks (Capalbo et al., 2018). Furthermore, companies that had more than one CEO during the observation period were excluded to eliminate biases associated with CEO turnover. Specifically, any firm that underwent a CEO change—defined as having more than one CEO within a single year—was removed to allow for attribution of earnings management behavior to a single CEO's personality profile (Cruz et al., 2024).

Next, transcripts and audio recordings of earnings conference calls were collected for the selected companies. Meetings where the CEO was not present were excluded. Audio files without publicly available transcripts were manually transcribed. In total, 210 audio recordings, each averaging approximately 90 minutes, were transcribed. The analysis focused on quarterly earnings calls where CEOs presented company results to analysts and external stakeholders. When more than one call was conducted in a given year, transcripts were aggregated to create a single annual record for each firm-year between 2010 and 2019. Following the transcription process, financial data were extracted from the Economática database.

The final sample consisted of 111 companies and 543 firm-year observations. Panel data modeling was employed to analyze the relationship between CEO narcissism and real earnings management, in accordance with the study's objectives.

3.3 Operational definition of variables

3.3.1 Dependent Variables – Real Earnings Management

Following the framework developed by Roychowdhury (2006), this study considers three forms of real earnings management: (i) abnormal cash flow from operations (GRCFO), (ii) abnormal discretionary expenses (GRS&GA), and (iii) abnormal production costs (GRPROD). To estimate GRCFO, the following regression model was applied:

$$\frac{CFO_t}{A_{t-1}} = \beta_0 + \beta_1(\frac{1}{A_{t-1}}) + \beta_2(\frac{S_t}{A_{t-1}}) + \beta_3(\frac{\Delta S_t}{A_{t-1}}) + \varepsilon_t \ (1)$$

Where: CFO_t is the operating cash flow; (ii) A_{t-1} is Total assets at the beginning of period t; (iii) S_t is Sales in period t; (iv) $\Delta S_t = S_t - S_{t-1}$; and (v) ε_t is the regression error term.

The GRCFO metric is obtained by multiplying the residual () by -1 (one) (Roychowdhury, 2006), since lower residuals indicate higher manipulation (Olsen et al., 2014; Jasman & Murwaningsari, 2018; Phillips, 2019; Lin et al., 2020). This transformation allows for a continuous measure where higher values correspond to greater levels of earnings management.

To calculate GRSG&A, the following regression was estimated:

$$\frac{SG\&A_t}{A_{t-1}} = \beta_0 + \beta_1(\frac{1}{A_{t-1}}) + \beta_2(\frac{S_t}{A_{t-1}}) + \varepsilon_t \qquad (2)$$

Where $SG\&A_t$ represents selling, general, and administrative expenses in period t. Again, the residual is multiplied by -1 to create a variable that increases with the level of manipulation.

Although Roychowdhury (2006) originally defined discretionary expenses as the sum of R&D, advertising, and SG&A, due to unavailability of data on R&D and advertising, only SG&A was used in this study.

To estimate GRPROD, the following regression was applied:

$$\frac{PROD_t}{A_{t-1}} = \beta_0 + \beta_1(\frac{1}{A_{t-1}}) + \beta_2(\frac{S_t}{A_{t-1}}) + \beta_3(\frac{\Delta S_t}{A_{t-1}}) + \beta_4\left(\frac{\Delta S_{t-1}}{A_{t-1}}\right) + \varepsilon_t \quad (3)$$

Where: (i) $PROD_t$ is sum of cost of goods sold and changes in inventory in periods *t* and *t-1*; and (ii) $\Delta S_{t-1} = S_{t-1} - S_{t-2}$.

The residual is used as the GRPROD measure, with higher values indicating greater earnings manipulation. Outliers in all three variables (GRCFO, GRSG&A, GRPROD) were treated using winsorization at the 1st and 99th percentiles. Sectors with fewer than ten observations were excluded, following the methodology of Gounopoulos and Pham (2018).

3.3.2 Independent variables of interest

Language use is closely linked to individual personality traits. The linguistic patterns of CEOs can provide insight into their cognitive and psychological profiles (Craig & Amernic, 2004). The main independent variables in this study are CEO narcissism and CEO duality. Observable proxies derived from CEO speech were used to measure narcissism, following the methodology of Chatterjee and Hambrick (2007).

The narcissism proxy is calculated as the ratio of first-person singular personal and possessive pronouns (Chatterjee & Hambrick, 2007)e.g., "I," "me," "my," "mine," "myself") to the total number of first-person pronouns (which includes both singular and plural: "I," "me," "my," "mine," "myself," "we," "us," "our," "ours," "ourselves"(Chatterjee & Hambrick, 2007). This ratio was computed through content analysis of earnings call transcripts using ATLAS.ti software.

The justification for using linguistic data lies in evidence from Chung and Pennebaker (2007), who showed that linguistic choices are often unconscious and difficult to manipulate, even under controlled conditions. Therefore, linguistic analysis is a reliable method for identifying underlying personality traits. Research in social psychology supports the use of language as a diagnostic tool for personality profiling (Mehl, Gosling & Pennebaker, 2006; Fast & Funder, 2008).

The CEO duality variable takes the value 1 if the CEO is also a member of the board of directors, and 0 otherwise (Olsen et al., 2014; Alhmood et al., 2020; Lin et al., 2020).

3.3.3 Control Variables and Model Specification

Table 2 lists the control variables, their measurement metrics, and the expected signs regarding their relationship with real earnings management.

Table 2 - Control Variables Used in the Analysis of Real Earnings Management

Variável	Métricas	Sinal Esperado e Estudos
Tenure Time	Tenure of the Chief Executive Officer.	CEOs with longer tenure are expected to avoid unethical behavior that could compromise the reputation they have established over time (Jasman & Murwaningsari, 2018).
Total number of members on the board of directors (NBM)	Natural logarithm (NL) of the total number of board members.	the literature does not offer a consensus regarding the expected sign of this variable (Kang & Kim, 2012; Talbi *et al.*, 2015).
Square of the total number of members on the board of directors (NBM)²	Square of the natural logarithm of the total number of board members.	If this variable exhibits a coefficient with a sign opposite to that of NBM, it may indicate that, beyond a certain number of members, the effectiveness of the board of directors either increases or decreases (Júnior, Mellone & Saito, 2004).
Corporate governance level,	This variable takes the value of one if the company is listed in the Novo Mercado segment of B3, and zero otherwise.	Corporate governance is expected to act as a mitigating factor against managerial opportunism, particularly in companies listed under the Novo Mercado segment of B3. This segment is distinguished by the adoption of rigorous corporate governance and transparency standards, including requirements such as an independent board of directors, issuance of only common shares, and enhanced rights for minority shareholders. These mechanisms promote better alignment of interests between investors and management (Almeida-Santos *et al.*, 2011).
Earnings Management (EM)	Earnings management by accruals, calculated using the model proposed by Collins et al. (2017) model.	Quando os custos de gerenciamento via accruals são elevados, as empresas tendem a se envolver mais em gerenciamento real (Zang, 2012).
Market-to-book (MTB)	$\frac{Market\ value_{i,t}}{Net\ worth_{i,t}}$	The literature does not demonstrate a consensus regarding the expected sign of this variable (Sun, Lan & Liu, 2014; Jasman & Murwaningsari, 2018; Phillips, 2019).
Leverage	$\frac{Total\ debt_{i,t}}{Total\ asset_{i,t}}$	Leverage is expected to have a positive association with earnings management. According to Watts and Zimmerman (1985), managers of highly leveraged firms may engage in earnings manipulation to strengthen the firm's negotiating position in debt contracting and to avoid potential breaches of debt covenants.
Return on Assets (ROA)	$\frac{Net\ profit_{i,t}}{Total\ asset_{i,t}}$	the literature does not present a unified view on the expected sign of this relationship (Kang & Kim, 2012; Sun *et al.*, 2014; Olsen *et al.*, 2014; Talbi *et al.*, 2015; Jasman & Murwaningsari, 2018).
Firm Size	NL of $Total\ asset_{i,t}$	the literature lacks consensus on the expected sign of this variable (Kang & Kim, 2012; Sun *et al.*, 2014; Olsen *et al.*, 2014; Jasman & Murwaningsari, 2018; Phillips, 2019).
Economic Recession	It has a value of one in 2015 and 2016 and zero otherwise.	During periods of economic downturn, managers may be less incentivized to manipulate earnings due to increased shareholder tolerance for poor financial performance (Phillips, 2019).

Source: Research data.

To assess the relationship between narcissism, duality, and real earnings management, the following panel data model (Equation 4 was estimated.

$$GRR_{i,t} = \beta_0 + \beta_1 Narc_{i,t} + \beta_2 Narc_{i,t} * Dua_{i,t} + \beta_3 Dua_{i,t} + \beta_{4-11} Controles_{i,t} + \varepsilon_t + v_t \ (4)$$

Where: (i) $GRR_{i,t}$ is real earnings management variable (GRCFO, GRSG&A and GRPROD); (ii) $Narc_{i,t}$ is CEO narcissism; (iii) $Dua_{i,t}$ is CEO duality; (iv) $Narc_{i,t} * Dua_{i,t}$ is interaction term between narcissism and duality; (v) $Controls_{i,t}$ is set of control variables listed in Table 2; (vi) ε_t is error term; and (vii) v_i is unobserved firm-specific effects.

4 ANALYSIS OF RESULTS

Panel A of Table 3 presents the descriptive statistics for continuous variables, while Panel B displays the frequency distribution of dichotomous variables.

Table 3 Descriptive Statistics of the Real Earnings Management Variables

Panel A: Descriptive Statistics of Continuous Variables						
Variable	**Mean**	**Median**	**Maximum**	**Minimum**	**Standard Deviation**	**CV**
Tenure Time	4,7993	3,6660	40,0657	0,4381	4,6541	96,97%
Narcissism	0,2098	0,1928	0,8333	0,0000	0,1279	60,95%
NBM	9,9374	9,0000	24,0000	4,0000	3,8863	39,11%
Size	22,2427	22,1386	27,5542	18,9716	1,3238	5,95%
Leverage	0,3143	0,3110	1,1007	0,0000	0,1912	60,85%
ROA	0,0341	0,0379	0,3619	-0,5178	0,0918	269,53%
MTB	2,4160	1,6037	33,0569	-18,2550	3,3728	139,61%
GRRCFO	-0,0106	-0,0016	0,4188	-0,3972	0,1023	961,07%
GRRPROD	0,0000	0,0000	0,0000	0,0000	0,0000	122,36%
GRSG&A	-0,0040	-0,0169	0,3453	-0,3067	0,0790	1961.32%
EM	0,0367	0,0245	0,3769	0,0000	0,0425	115,97%

Panel B: Statistics of Dichotomous Variables			
Variable	**Modality**	**Frequency**	**(%)**
Duality	0	298	54,88%
	1	245	45,12%
Gender	0	3	0,55%
	1	540	99,45%
Governance Level	0	129 observations (29 companies)	23,76%
		414 observations (82 companies)	76,24%

Source: Research data.

Caption: CV = Coefficient of Variation

The continuous variables in the dataset exhibit notable variation relative to their means. This variability is evident in the coefficient of variation, which exceeds 30% for most variables—indicating considerable dispersion and, consequently, the heterogeneity of the sample. This result may reflect the diversity in size and industry sectors among the firms included in the analysis.

Most CEOs in the sample exhibited low levels of narcissism, as reflected in a median narcissism score of 0.1928 and a third quartile of 0.2812. However, the upper quartile reveals significant disparity, with the narcissism index reaching a maximum value of 0.8333, suggesting that a small subset of CEOs displayed markedly higher narcissistic tendencies.

CEO tenure—the duration an executive has held the CEO position—also showed substantial variation. The coefficient of variation was 96.97%, with tenure ranging from 0.4381 year to 40 years. Despite this range, the median tenure was 3.67 years, suggesting that most CEOs in the sample do not remain in the position for extended periods. Only 7.73% of CEOs had held the position for more than ten years.

Regarding gender, the sample was overwhelmingly male, with 99.54% of CEOs being men. The duality variable—indicating whether the CEO also held a seat on the board—was present in 45.12% of cases, meaning that a slight majority of companies (54.88%) did not have CEO representation on the board. The size of the board of directors varied across firms, ranging from four to twenty-four members.

In terms of corporate governance, 76.24% of the companies were listed under the Novo Mercado segment, which is characterized by stricter governance standards and transparency requirements. The remaining 23.76% operated under other governance levels or within the traditional market. This finding underscores a general commitment to investor protection and disclosure standards among the firms analyzed.

To address discrepancies related to firm size, the variables Size and NBM (Net Book-to-Market ratio) were log-transformed. The analysis of leverage reveals that, on average, the companies in the sample maintained low debt levels, relying more on equity financing than on third-party debt.

Regarding profitability, firms generally appeared profitable, as indicated by positive average ROA values. The market-to-book ratio (MTB) had a median of 1.6037, suggesting that market valuations of firms were generally higher than their book values—an indication of perceived growth potential by investors.

The accrual-based earnings management variable (EM) exhibited substantial variation, reflecting differing management practices across firms. As for the real earnings management proxies—GRCFO, GRPROD, and GRSG&A—the medians were -0.0064, -1.9E-09, and -0.0162, respectively. These low values are expected, as the residuals from the regressions used to compute them theoretically sum to zero.

To assess the validity of the proposed models, Chow and Breusch-Pagan tests were applied. Results from both tests rejected the null hypothesis in favor of model heterogeneity, indicating that the pooled OLS model is inappropriate for the dataset under analysis.

Subsequently, the Hausman test supported the use of fixed effects modeling to estimate the parameters. However, diagnostic tests—the modified Wald test for heteroscedasticity and the Wooldridge test for autocorrelation—rejected the null hypotheses of homoscedasticity and absence of autocorrelation, respectively. Given these violations, the model was re-estimated using Generalized Least Squares (GLS) with corrections for heteroscedasticity and autocorrelation.

The Wald test for overall model significance confirmed that the GLS models are statistically significant, thereby validating the modeling approach. Table 4 presents the results for the model in which GRCFO—abnormal operating cash flow—is the dependent variable.

Table 4 Estimation Results of the Econometric Models Using GRCFO as the Dependent Variable

GRCFO			
Variable	**Coefficient**	**P-value**	**Standard Error**
Narcissism	-0,0094	0,538	0,0151
Narcissism*Duality	0,1102	0,000***	0,0275
Duality	-0,0143	0,033**	0,0064
Tenure Time	0,0016	0,030**	0,0007
Governance Level	-0,0147	0,029**	0,0064
NBM	0,1630	0,000***	0,0329
$(NBM)^2$	-0,0464	0,000***	0,0079
EM	-0,2440	0,000***	0,0399
Size	0,0071	0,004***	0,0023
Leverage	0,0624	0,000***	0,0114
ROA	-0,4235	0,000***	0,0343
MTB	-0,0053	0,000***	0,0006
Economic Recession	-0,0232	0,000***	0,0024
Constant	-0,2665	0,0002***	0,0641
Chow	***3,53****		
Breusch-Pagan	***94,94****		
Hausman	***82,44****		
Wooldridge	***15,549****		
Modified Wald	***1,1e+32 ****		
Wald	***15482,43 ****		

Note 1: Statistical significance is indicated by the following symbols: *10%; **5%; ***1%.

Source: Research data.

In the first model, the dependent variable is abnormal operating cash flow (GRCFO). The narcissism variable is not statistically significant, which contrasts with findings in studies such as Olsen et al. (2014), Jasman and Murwaningsari (2018), and Phillips (2019).

Conversely, the duality variable exhibits a statistically significant negative effect, suggesting that when CEOs hold board membership, there is less engagement in earnings management via real activities. This result is consistent with Alhmood et al. (2020), who argue that duality may enhance decision-making efficiency by aligning executive and board-level objectives, thereby reducing goal misalignment and opportunistic behavior.

Notably, the interaction term between narcissism and duality is positive and statistically significant. This implies that narcissistic CEOs who also hold board seats are more likely to engage in real earnings management via inflated sales, possibly through aggressive revenue recognition tactics. This finding aligns with Cressey's (1953) Fraud Triangle Theory, which suggests that even if narcissistic motivation is present, the opportunity to manipulate earnings increases significantly when CEOs have direct influence over governance structures.

The CEO tenure variable is also positive and significant, indicating that longer-serving CEOs are more likely to engage in real earnings management. This finding contrasts with prior results from Jasman and Murwaningsari (2018), Phillips (2019), and Alhmood et al. (2020). In the Brazilian context, this discrepancy may reflect a perception that unethical behavior is less likely to be detected or punished over time. Another plausible explanation is that longer-tenured CEOs develop a deeper understanding of the firm's internal operations and control weaknesses, facilitating manipulation.

Finally, corporate governance level—specifically membership in the Novo Mercado segment—has a negative and statistically significant effect on real earnings management. This finding is consistent with Almeida-Santos et al. (2011), who argue that stronger governance structures constrain managerial discretion, making earnings manipulation more difficult.

The variable board size (NBM) is positively and significantly associated with real earnings management, suggesting that firms with larger boards tend to exhibit higher levels of such practices. However, the squared term of board size (NBM^2) displays a negative coefficient, indicating a non-linear relationship. This suggests the presence of an optimal board size beyond which monitoring becomes more effective, thus reducing earnings management. Below this threshold, monitoring may be weakened, allowing for greater managerial discretion. This finding aligns with the recommendation by the Brazilian Institute of Corporate Governance (IBGC, 2009), which advocates for boards comprising between five and eleven members. A larger board may also incorporate more independent and experienced directors, thereby enhancing monitoring capabilities and reducing opportunities for manipulation (Peasnell et al., 2005).

The accrual-based earnings management variable (EM) is statistically significant and negatively associated with real earnings management, indicating that firms engaging in accrual manipulation are less likely to simultaneously engage in real activity manipulation. This result supports the notion of a substitution effect between the two types of earnings management. As accruals are constrained by accounting standards and subject to reversal in subsequent periods, managers may resort to real earnings manipulation, particularly via cash flows, when accrual-based strategies are no longer viable.

The firm size variable is positive and significant in relation to the GRCFO proxy, suggesting that larger firms are more inclined to engage in real earnings management via cash flow manipulation. Larger firms possess the infrastructure necessary to support abnormal inventory and service provision strategies. Additionally, these firms may face greater pressure from external stakeholders to meet financial targets. This result corroborates findings by Kang and Kim (2012), Sun et al. (2014), and Phillips (2019).

Leverage also has a positive and statistically significant coefficient in the GRCFO model. This implies that more highly leveraged firms may engage in real earnings management to avoid breaching debt covenants and to enhance their negotiation power with creditors. These findings are consistent with the literature (Phillips, 2019; Talbi et al., 2015).

The performance variable (ROA) is negatively associated with GRCFO, indicating that more profitable firms tend to engage less in earnings management via cash flows. This is in line with the findings of Jasman and Murwaningsari (2018), Olsen et al. (2014), Sun et al. (2014), and Talbi et al. (2015).

The market-to-book ratio (MTB) also shows a negative relationship with real earnings management, suggesting that firms with greater growth opportunities, as perceived by the market, are less likely to engage in GRCFO practices. This aligns with the work of Roychowdhury (2006) and Talbi et al. (2015).

Regarding the economic recession variable, results indicate a negative and statistically significant coefficient, implying that during periods of economic downturn, managers are less likely to inflate sales. This contrasts with findings by Phillips (2019). According to Jenkins et al. (2009), such restraint during recessions may reflect the absence of investor expectations for high revenue growth in times of crisis. Moreover, the cost of artificially increasing sales may be prohibitive due to reduced liquidity and weakened customer demand, further discouraging real activity manipulation.

Table 5 Estimation Results of the Econometric Models Using GRPROD as the Dependent Variable

GRPROD			
Variable	**Coefficient**	**P-value**	**Standard Error**
Narcissism	3,26E-10	0.6198	6,50E-10
Narcissism*Duality	-4,73E-10	0.6704	1,10E-09
Duality	3,71E-10	0.2002	2,83E-10
Tenure Time	2,88E-11	0.2437	2,42E-11
Governance Level	9,49E-11	0.7157	2,58E-10
NBM	-2,02E-09	0.2578	1,75E-09
$(NBM)^2$	3,87E-10	0.3293	3,90E-10
EM	-1,43E-09	0.3638	1,55E-09
Size	**5,43E-10**	0.0000***	9,10E-11
Leverage	-9,83E-10	0.0749**	5,32E-10
ROA	1,76E-09	0.1499	1,19E-09
MTB	-6,30E-11	0.1126	3,85E-11
Economic Recession	-5,61E-11	0.6620	1,27E-10
Constant	**-1,17E-08**	0.0002***	2,80E-09
Chow	***9,15****		
Breusch-Pagan	***573,35****		
Hausman	***20,69****		
Wooldridge	***14,838****		
Modified Wald	***1,4e+06****		
Wald	***12,25****		

Source: Research data.

Note 1: Statistical significance is indicated by the following symbols: *10%; **5%; ***1%.

Table 5 presents results for the second model, in which the dependent variable is earnings management measured by abnormal production costs (GRPROD). The primary variables of interest—CEO narcissism and the interaction term between narcissism and duality—are not statistically significant in this model.

However, firm size is positively and significantly associated with GRPROD, consistent with findings by Kang and Kim (2012) and Olsen et al. (2014). This indicates that larger firms are more capable of engaging in earnings management via overproduction, as they possess the necessary production capacity and inventory systems.

A negative relationship is observed between leverage and GRPROD, suggesting that firms with higher debt levels are less likely to engage in overproduction as a means of earnings manipulation. This may be due to financial constraints, as indebted firms may lack the resources required to support abnormal increases in production and inventory (Olsen et al., 2014).

Table 6 presents the third model, where earnings management is measured via abnormal discretionary expenses (GRSG&A).

Table 6 Estimation Results of the Econometric Models Using GRSG&A as the Dependent Variable

GRSG&A			
Variable	**Coefficient**	**P value**	**Standard Error**
Narcissism	**-0,0225**	0,0140**	0,0090
Narcissism*Duality	**0,0256**	0,0060***	0,0093
Duality	**-0,0081**	0,0070***	0,0030
Tenure Time	**0,0003**	0,100	0,0002
Governance Level	**-0,0075**	0,0090***	0,0029
NBM	-0,0379	0,1700	0,0274
$(NBM)^2$	0,0045	0,4100	0,0054
EM	0,0152	0,1500	0,0101
Size	0,0000	0,5000	0,0013
Leverage	-0,0046	0,4300	0,0058
ROA	**-0,0251**	0,0370**	0,0118
MTB	0,0004	0,3200	0,0004
Economic Recession	**0,0030**	0,0000***	0,0005
Constant	0,0496	0,2500	0,0430
Chow	***9,15****		
Breusch-Pagan	***573,35****		
Hausman	***20,69****		
Wooldridge	***14,838****		
Modified Wald	***1,4e+06****		
Wald	***12,25****		

Source: Research data.

Note 1: Statistical significance is indicated by the following symbols: *10%; **5%; ***1%.

In this model, CEO narcissism is statistically significant and negatively related to earnings management, suggesting that firms with more narcissistic CEOs tend to exhibit lower levels of manipulation through discretionary spending. This finding contrasts with that of Jasman and Murwaningsari (2018).

However, consistent with the first model, the interaction term between narcissism and duality is positive and significant, indicating that narcissistic CEOs who are also board members are more likely to engage in earnings management via discretionary expense reduction. This finding implies that positional power, when combined with narcissistic tendencies, enhances the executive's ability to influence financial outcomes. Thus, narcissistic CEOs may only exploit such strategies when governance structures grant them greater discretion.

Both duality and governance level are negatively associated with GRSG&A, suggesting that these mechanisms mitigate opportunistic behavior. Nonetheless, the presence of narcissistic CEOs on the board may undermine these safeguards, weakening their effectiveness.

In line with Jasman and Murwaningsari (2018), the variable tenure is positively associated with GRSG&A, suggesting that CEOs with longer tenure are more likely to reduce discretionary expenditures as a form of earnings management. On the other hand, firm performance (ROA) is negatively related to GRSG&A, consistent with studies by Kang and Kim (2012) and Talbi et al. (2015).

The results for the economic recession variable in this model differ from those of the first. A positive coefficient suggests that, during economic downturns, firms are more likely to engage in earnings management via discretionary expense reduction. However, this may not necessarily reflect manipulation. As firms face heightened financial pressure during recessions, cost-cutting becomes a strategic necessity. Nonetheless, excessive reductions in discretionary spending, such as training or marketing, may jeopardize the long-term viability of the firm.

5 CONCLUSION

This study aimed to contribute to the literature on executive personality and earnings management by examining a sample of 111 companies listed on B3, with the specific objective of analyzing the influence of narcissistic CEOs on real earnings management.

The analysis centers on narcissism as a key personality trait, given its potential to influence managerial behavior. Narcissistic individuals are typically self-centered, display arrogance, and show limited empathy, which may lead them to leverage their leadership roles to pursue personal gratification. These characteristics become particularly salient when such individuals occupy positions of power, such as the CEO role.

Although the study did not find a direct association between narcissistic CEOs and overall levels of real earnings management, the findings indicate that when narcissistic CEOs also serve on the board of directors, there is a significant increase in earnings management, particularly through abnormal sales and reductions in discretionary expenditures. These results suggest that board membership provides narcissistic executives with greater discretion and influence, thereby enabling them to manipulate financial outcomes to suit personal objectives.

Consistent with prior research, the presence of non-narcissistic CEOs on the board appears to be beneficial, as it is associated with lower levels of earnings manipulation and greater emphasis on sustainable, long-term profitability.

Given these findings, this study highlights the importance of robust governance mechanisms, particularly in the process of selecting and evaluating board members. Assessing the narcissistic tendencies of executives during the nomination or succession process may prove useful in reducing the risk of opportunistic behavior. A board free from narcissistic individuals may enhance decision-making transparency and accountability, contributing to more ethical corporate conduct.

In regard to earnings management through production costs, the results suggest that such manipulation is contingent on a firm's operational capabilities—specifically, its capacity to support abnormal increases in production and inventory. Since this form of manipulation requires substantial financial and physical resources, managers are likely to engage in it only when the reduction in unit costs outweighs the associated production and storage expenses. This operational constraint may explain why CEO narcissism did not exhibit a significant effect on abnormal production cost manipulation in the present study.

Regarding CEO tenure, the study finds that longer-serving executives are more inclined to engage in real earnings management. This finding points to a nuanced trade-off: while extended tenure may equip CEOs with deeper technical knowledge and familiarity with internal operations, it may also erode independence and facilitate unethical practices. CEOs with longstanding tenures are more likely to be aware of internal control weaknesses, and, as a result, more capable of exploiting them. These insights suggest that boards should consider establishing guidelines on the optimal duration of CEO appointments to balance expertise with accountability.

The study also provides empirical support for the idea that companies listed on B3's Novo Mercado segment exhibit stronger internal control mechanisms and lower levels of real earnings management, reaffirming the positive role of enhanced corporate governance standards in mitigating managerial opportunism.

Furthermore, findings indicate a substitutive relationship between accrual-based and real earnings management. When firms are constrained in their ability to manipulate accruals—due to accounting standards or the natural reversal of such items—they may shift to managing earnings through real activities, such as cash flows. This highlights the interchangeability of earnings management methods and the strategic discretion available to corporate executives.

With respect to exogenous factors, such as macroeconomic instability, the study finds that economic recessions influence the choice of earnings management strategy. During periods of economic uncertainty, firms appear to favor reductions in discretionary expenses, while in more stable periods, they are more likely to manipulate results through abnormal increases in sales. This finding reflects how external environmental conditions shape internal managerial decisions regarding financial reporting.

Despite its contributions, this study presents certain limitations. One significant limitation is the exclusion of Chief Financial Officers (CFOs), who frequently participate in earnings conference calls and play a crucial role in accounting policy decisions. Future research should consider examining how CFO narcissism affects earnings management, as incorporating CFOs into the analysis would not only increase the sample size but also offer a more comprehensive understanding of how executive personality traits influence financial outcomes.

Another limitation pertains to the study's treatment of exogenous shocks. While the analysis focuses on the 2014 Brazilian economic recession, it does not address the more recent and globally impactful COVID-19 pandemic, which began in 2020. This health crisis, much like the 2014 recession, may have significant implications for earnings management practices. Future research should examine how the COVID-19 crisis influenced earnings management among Brazilian firms, particularly those led by narcissistic executives. Such analysis could offer deeper insights into the behavioral and strategic responses of managers under extreme external pressure.

REFERENCES

Alhmood, M. A., Shaari, H., & Al-dhamari, R. (2020). CEO Characteristics and Real Earnings Management in Jordan. *International Journal of Financial Research, 11*(4), 255.

Almeida-Santos, P. S., Verhagem, J. A., & Bezerra, F. A. (2011). Gerenciamento de resultados por meio de decisoes operacionais e a governança corporativa: analise das industrias siderurgicas e metalurgicas brasileiras. *Revista de Contabilidade e Organizações, 5*(13).

American Psychiatric Association. (1994). DSM-IV: Diagnostic and Statistical Manual of Mental Disorders. *JAMA: The Journal of the American Medical Association, 272*(10), 828.

American Psychiatric Association. (2001). The character of self-enhancers: Implications for organizations. In *Personality psychology in the workplace*. (pp. 193–219). American Psychological Association. https://doi.org/10.1037/10434-008

Amernic, J. H., & Craig, R. J. (2010). Accounting as a Facilitator of Extreme Narcissism. *Journal of Business Ethics, 96*(1), 79–93.

Capalbo, F., Frino, A., Lim, M. Y., Mollica, V., & Palumbo, R. (2018). The Impact of CEO Narcissism on Earnings Management. *Abacus, 54*(2), 210–226.

Cruz, N. G., Takamatsu, R. T., & Cordeiro, F. A. (2024). Narcissism and Earnings Management. *Review of Business Management, 26*(02). https://doi.org/10.7819/rbgn.v26i02.4260

Chatterjee, A., & Hambrick, D. C. (2007). It's All about Me: Narcissistic Chief Executive Officers and Their Effects on Company Strategy and Performance. *Administrative Science Quarterly, 52*(3), 351–386. https://doi.org/10.2189/asqu.52.3.351

Collins, D. W., Pungaliya, R. S., & Vijh, A. M. (2017). The Effects of Firm Growth and Model Specification Choices on Tests of Earnings Management in Quarterly Settings. *The Accounting Review, 92*(2), 69–100. https://doi.org/10.2308/accr-51551

Craig, R. ., & Amernic, J. . (2004). Enron discourse: the rhetoric of a resilient capitalism. *Critical Perspectives on Accounting, 15*(6–7), 813–852.

Cressey, D. (1953). *Other people's Money: A study of the social psychology of embezzlement*. Free Press.

Daily, C. M., & Dalton, D. R. (1997). CEO and Board Chair Roles Held Jointly or Separately: Much Ado About Nothing? *Academy of Management Perspectives, 11*(3), 11–20.

Finkelstein, S. (1992). POWER IN TOP MANAGEMENT TEAMS: DIMENSIONS, MEASUREMENT, AND VALIDATION. *Academy of Management Journal, 35*(3), 505–538. https://doi.org/10.2307/256485

Finkelstein, S., & D'Aveni, R. A. (1994). ceo duality as a double-edged sword: how boards of directors balance entrenchment avoidance and unity of command. *Academy of Management Journal, 37*(5), 1079–1108.

Freitas, M. R. D. O., Pereiras, G. M., Vasconcelos, A. C. De, & Luca, M. M. M. De. (2020). Concentração Acionária, Conselho de Administração e Remuneração de Executivos. *Revista de Administração de Empresas, 60*(5), 322–335.

Gounopoulos, D., & Pham, H. (2018). Financial Expert CEOs and Earnings Management Around Initial Public Offerings. *The International Journal of Accounting, 53*(2), 102–117.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics, 40*(1–3), 3–73.

Instituto Brasileiro de Governança Corporativa (IBGC). (2009). *Código das melhores práticas de governança corporativa* (4th ed.).

Ipino, E., & Parbonetti, A. (2017). Mandatory IFRS adoption: the trade-off between accrual-based and real earnings management. *Accounting and Business Research, 47*(1), 91–121.

Jasman, J., & Murwaningsari, E. (2018). The roles of internal audit quality on the relationship between narcissistic CEOs and real earnings management. *Journal of Business & Retail Management Research, 13*(01).

Jenkins, D. S., Kane, G. D., & Velury, U. (2009). Earnings Conservatism and Value Relevance Across the Business Cycle. *Journal of Business Finance & Accounting, 36*(9–10), 1041–1058. https://doi.org/10.1111/j.1468-5957.2009.02164.x

Judge, T. A., Piccolo, R. F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly, 20*(6), 855–875.

Júnior Mellone, G., & Saito, R. (2004). Monitoramento interno e desempenho da empresa: determinantes de substituição de executivos em empresas de capital aberto no Brasil. *R.Adm, 39*(4), 385–397.

Kang, S.-A., & Kim, Y.-S. (2012). Effect of corporate governance on real activity-based earnings management: evidence from Korea/Imoniu valdymo poveikis, pagristas darbo uzmokescio valdymu: Korejos pavyzdys. *Journal of Business Economics and Management, 13*(1), 29–52. https://doi.org/10.3846/16111699.2011.620164

Kothari, S. P., Mizik, N., & Roychowdhury, S. (2015). Managing for the Moment: The Role of Earnings Management via Real Activities versus Accruals in SEO Valuation. *The Accounting Review, 91*(2), 559–586.

Lin, F., Lin, S.-W., & Fang, W.-C. (2020). How CEO narcissism affects earnings management behaviors. *The North American Journal of Economics and Finance, 51*, 101080.

Masulis, R. W., Wang, C., & Xie, F. (2012). Globalizing the boardroom—The effects of foreign directors on corporate governance and firm performance. *Journal of Accounting and Economics, 53*(3), 527–554.

McNulty, T., & Pettigrew, A. (1999). Strategists on the Board. *Organization Studies*, 20(1), 47–74. https://doi.org/10.1177/0170840699201003

Murphy, P. R. (2012). Attitude, Machiavellianism and the rationalization of misreporting. *Accounting, Organizations and Society, 37*(4), 242–259.

Nuanpradit, S. (2019). Real earnings management in Thailand: CEO duality and serviced early years. *Asia-Pacific Journal of Business Administration, 11*(1), 88–108.

Olsen, K. J., Dworkis, K. K., & Young, S. M. (2014). CEO Narcissism and Accounting: A Picture of Profits. *Journal of Management Accounting Research, 26*(2), 243–267.

Peasnell, K. V., Pope, P. F., & Young, S. (2005). Board Monitoring and Earnings Management: Do Outside Directors Influence Abnormal Accruals? *Journal of Business Finance, 32*(7–8), 1311–1346.

Phillips, E. M. (2019). *An Examination Of Narcissistic And Non_Narcissistic CEO's Financial Reporting Behavior During Times Of Market Euphoria And Crashe*. The University of Arizona.

Raskin, R., & Terry, H. (1988). A principal-components analysis of the Narcissistic Personality Inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology, 54*(5), 890–902.

Rhodewalt, F., & Morf, C. C. (1995). Self and Interpersonal Correlates of the Narcissistic Personality Inventory: A Review and New Findings. Journal of Research in Personality, 29(1), 1–23. https://doi.org/10.1006/jrpe.1995.1001

Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics, 42*(3), 335–370.

Sun, J., Lan, G., & Liu, G. (2014). Independent audit committee characteristics and real earnings management. *Managerial Auditing Journal, 29*(2), 153–172.

Talbi, D., Omri, M. A., Guesmi, K., & Ftiti, Z. (2015). The Role Of Board Characteristics In Mitigating Management Opportunism: The Case Of Real Earnings Management. *Journal of Applied Business Research (JABR), 31*(2), 661.

Watts, R. L., & Zimmerman, J. L. (1985). *Positive Accounting Theory* (1st ed.). Pearson.

Zang, A. Y. (2012). Evidence on the Trade-Off between Real Activities Manipulation and Accrual-Based Earnings Management. *The Accounting Review, 87*(2), 675–703.