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Family firms' tax behavior: The role of real earnings management

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ABSTRACT

This research investigates how family ownership shapes corporate income tax (CIT) minimization in Brazil and assesses the role of real earnings management (REM) in influencing these tax strategies. The paper addresses a neglected gap by linking REM to corporate tax minimization in family firms. Drawing on Brazil's complex tax environment, it extends socioemotional wealth (SEW) theory by explaining how family priorities shape real activity manipulation and tax strategies. Understanding how SEW orientations shape family firms' tax behavior is relevant in emerging markets where reputational enforcement is weak. Furthermore, the research clarifies how REM interacts with family ownership to influence CIT minimization, emphasizing the need to analyze family and nonfamily firms comparatively to capture their distinct behavioral patterns. The study advances theory by demonstrating how restricted SEW orientations foster short-term, tax-minimizing behavior in family firms and by revealing how family priorities shape tax decisions in complex, high-tax-burden contexts such as Brazil. Using 710 firm-year observations from 142 nonfinancial companies listed on the Brazilian stock exchange (2018-2022), this study estimates the impact of family ownership on CIT minimization. To assess the effect of REM on this relationship, additional analyses focus exclusively on the subset of family firms. Building on SEW, this study indicates that Brazilian family firms adopt more aggressive tax strategies compared to their nonfamily counterparts. Additionally, in family firms, abnormal operating cash flows negatively influence the effective tax rate, suggesting that sales-driven strategies like rebates and credit flexibility encourage tax minimization strategies. However, abnormal sales and general expenses and abnormal production costs show no significant impact. These results extend prior evidence by incorporating REM into the analysis, thereby revealing an additional mechanism influencing family firms' tax decisions.

Keywords: family firms, real earnings management, socioemotional wealth, CIT minimization, tax avoidance.

1. INTRODUCTION

A company is characterized as family-owned when its governance and management are largely centered on a family unit, with family members actively working to build and maintain familial relationships within the organization (Arregle et al., 2007). Furthermore, in family firms, founding families typically maintain substantial ownership stakes and control, passing them down through generations, ensuring a lasting interest and significant influence over the firm's operations (Arregle et al., 2024; Berrone et al., 2012; Brune et al., 2019; Chalevas et al., 2024; Chen et al., 2010; Gómez-Mejía et al., 2007; Özbay et al., 2023). This unique organizational form gives rise to behavioral patterns that often diverge from those observed in nonfamily firms (Ferreira et al., 2025; Gómez-Mejía et al., 2007; Santos & Silva, 2018; Zellweger et al., 2012).

These behavioral differences manifest in domains traditionally viewed through a purely financial or compliance lens (Bauweraerts et al., 2024; Gomez-Mejia et al., 2011; Hanlon & Heitzman, 2010), such as tax planning, tax avoidance, tax aggressiveness, and tax evasion (Alm et al., 2016; Araújo et al., 2020; Chen et al., 2010; Gomes & Abreu, 2018; Hanlon & Heitzman, 2010). Collectively, these practices, ranging from legitimate tax planning to illicit tax evasion, are referred to in this study as corporate income tax (CIT) minimization strategies, following the terminology adopted by Anesa et al. (2019).

The distinctive ways in which family firms engage in such strategies have been increasingly explored in the literature on tax behavior, which attributes them, among other theoretical perspectives, primarily to agency theory (Fama & Jensen, 1983) and socioemotional wealth (SEW) (Gómez-Mejía et al., 2007). While various theoretical frameworks explain family firms' tax behavior, with agency theory still prevailing, within the broader field of family firm behavior, the SEW approach has emerged as the dominant paradigm and a central differentiator of family firms (Berrone et al., 2012; Gómez-Mejía & Herrero, 2022). SEW offers a nuanced view by capturing noneconomic goals that guide decisions in family firms, especially when agency theory proves insufficient (Gomez-Mejia et al., 2011). From this viewpoint, family owners pursue not only financial but also nonfinancial goals, such as maintaining family control, preserving identity, and ensuring transgenerational continuity, objectives largely irrelevant to managers or shareholders in nonfamily firms (Bauweraerts et al., 2024; Brune et al., 2019; Ma & Ma, 2024; Sundkvist & Stenheim, 2023). In the tax domain, Bauweraerts et al. (2024) further distinguish between restricted SEW, which prioritizes short-term family benefits and may lead to tax-aggressive strategies and extended SEW, which emphasizes long-term reputation and is associated with more conservative practices.

Given these theoretical and behavioral distinctions, comparing family and nonfamily firms is essential for understanding how ownership structures influence tax behavior. While nonfamily firms serve primarily as a benchmark group, the core focus of this study is on the tax behavior of family firms. This comparative approach makes it possible to identify distinctive features of tax decision-making in Brazilian family firms that might otherwise remain hidden.

Considering these distinctions, Brazil offers a particularly relevant context for this inquiry. Its historically complex and unstable tax environment, marked by a heavy corporate tax burden, legal uncertainty, regulatory ambiguity, and frequent legislative changes, creates a challenging setting for corporate decision-making (Jacob, 2018; Moura de Carvalho et al., 2024; Oliveira et al., 2025; Rathke, 2021). This configuration generates both incentives and constraints, prompting firms to adopt heterogeneous tax-minimization strategies, from adaptive planning to more evasive responses, amid the unpredictability of enforcement outcomes (Costa & Klann, 2023).

Building on this context, this study examines how family ownership influences CIT minimization practices through the SEW perspective, distinguishing between restricted SEW, associated with short-term family benefits, and extended SEW, linked to long-term reputational concerns (Bauweraerts et al., 2024), using a sample of 710 firm-year observations from nonfinancial companies listed on the Brazilian stock exchange (B3 S.A. – Brasil, Bolsa, Balcão [B3]) from 2018 to 2022. Furthermore, the study seeks to evaluate the influence of real earnings management (REM) activities – abnormal operating cash flows (ABOCF), abnormal discretionary expenses (ABSGE), and abnormal production costs (ABPROD) – on CIT minimization within the subset of family firms, contributing to a deeper understanding of their tax strategies. This line of inquiry responds to a recent call for research on the role of REM in family-controlled firms, an area still considered underexplored and inconclusive (Bui, 2024). The final year of the sample intentionally ends in 2022, immediately preceding a major reform of Brazil's transfer pricing framework, with new rules becoming optional in 2023 and mandatory in 2024. This approach ensures comparability and isolates tax behavior under the pre-reform regulatory environment, while also providing a robust empirical benchmark for future research on post-reform adaptations in family firms, using nonfamily firms as a comparative reference group. Against this backdrop, the results indicate that Brazilian family firms engage in more aggressive CIT minimization strategies than their nonfamily

counterparts, prioritizing short-term family-centric outcomes over long-term reputational considerations. Such behavior is consistent with the restricted SEW perspective (Bauweraerts et al., 2024). Furthermore, when examining the role of REM, the findings suggest that higher levels of ABOCF may lead family firms to pursue more aggressive CIT minimization strategies, also aligning with the restricted SEW perspective (Bauweraerts et al., 2024). In contrast, other REM components – ABSGE and ABPROD – do not exhibit a significant influence on tax behavior.

Drawing on evidence from Brazil, where firms face a complex tax system and a heavy corporate tax burden, this study bridges two research streams – REM and CIT minimization in family firms – that, to our knowledge, have not been examined jointly. Moreover, the findings extend SEW perspectives, showing how family priorities shape reporting and tax strategies, and highlighting institutional drivers of family firms' tax behavior.

The remainder of this article is organized as follows: section 2 covers the literature review and hypotheses development, section 3 describes the methodology, section 4 presents the results, section 5 discusses the findings, and section 6 concludes the study.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Prior empirical evidence for the Brazilian context is provided by Martinez and Ramalho (2014), who examine firms listed on the Brazilian stock exchange from 2001 to 2012 and find that family firms are more tax aggressive than nonfamily firms. They attribute this result to the limited reputational and market costs associated with tax aggressiveness in Brazil. Beyond the Brazilian setting, however, research conducted in other countries reveals that family firms' tax behavior is context-dependent, influenced by institutional, legal, governance, and cultural factors. For instance, in diverse institutional settings, family control is linked to more aggressive tax positions: in Jordan and Tunisia, family ownership correlates with higher tax avoidance consistent with private-benefit extraction, though stronger audit committees or higher external audit quality mitigate this tendency (Almaharmeh et al., 2024; Gaaya et al., 2017). Similar patterns arise in Mexico and Italy. In Mexico, governance reforms and increased board independence curbed tax avoidance, especially among family-controlled firms (Kerr et al., 2024). In Italy, greater family ownership amplified incentives to extract private benefits through aggressive tax planning (Parisi & Federici, 2023). Evidence from large private firms in Germany indicates that family ownership and a greater number of family shareholders increase tax avoidance, as families seek to generate after-tax cash flows to meet dividend distribution needs (Kovermann & Wendt, 2019). At a cross-country level, López-González et al. (2019) find that family ownership weakens the usual negative association between corporate social responsibility (CSR) and tax avoidance, and Chakroun and Ben Amar (2025) show that it also moderates the effect of the International Financial Reporting Standards adoption on reducing tax avoidance, with this mitigating role being more pronounced in civil-law countries. In Turkey, family firms are more tax aggressive, whereas external monitoring by investors and creditors constrains tax avoidance mainly in nonfamily firms (Özbay et al., 2023). Conversely, in contexts with stronger reputational and monitoring pressures, family influence is linked to less aggressive tax behavior. In the United States of America, founding-family firms are less tax aggressive than nonfamily ones, as owners forgo tax savings to avoid reputational losses, minority-shareholder discounts, and penalties (Chen et al., 2010). Later evidence confirms this pattern, while showing that board structure and investor monitoring moderate the relationship between family control and tax management (Moore et al.,

2017). Evidence from 38 markets shows that family ownership reduces both conforming and nonconforming tax avoidance, with eponymy acting as a reputational constraint; however, this effect weakens in high power-distance cultures (Chalevas et al., 2024). In France, concentrated family or institutional ownership curbs tax avoidance driven by CEO overconfidence, as both act as long-term, reputation-based disciplining mechanisms (Souguir et al., 2024). In Finland, private family firms are less tax aggressive, especially when ownership and management align, and outside directors strengthen board monitoring, reducing agency problems (Steijvers & Niskanen, 2014). Founder imprinting also disciplines behavior: in Germany, founder presence and emotional attachment reduce tax avoidance, and this effect endures through continued ownership or board participation after founders step down (Brune et al., 2019).

Although international evidence is mixed, prior Brazilian findings indicate that family firms are more tax aggressive than nonfamily firms. From a SEW perspective, this pattern can be understood through the restricted SEW orientation (Bauweraerts et al., 2024), in which family owners prioritize short-term, family-centered financial outcomes over long-term reputational considerations. In institutional environments characterized by legal uncertainty and weak reputational enforcement, such as Brazil, this orientation tends to amplify incentives for CIT minimization, as families seek to safeguard short-term financial interests. Accordingly, the following hypothesis is proposed:

> H_1: family firms engage in CIT minimization to a greater extent than nonfamily firms.

Building on this premise, it is relevant to examine whether specific managerial practices contribute to shaping such tax behavior. One such practice is REM, which involves deliberate deviations from standard business practices to influence reported earnings, misleading stakeholders into perceiving financial targets as legitimately achieved (Ribeiro et al., 2024; Roychowdhury, 2006). It typically affects cash flows, expenses, or production processes and is classified into ABOCF, ABSGE, and ABPROD (Machdar, 2022; Roychowdhury, 2006).

Zang (2012) highlights that REM is typically book-tax conforming, meaning it simultaneously affects both book and taxable income. As a result, REM alone is not expected to directly impact measures such as the effective tax rate (ETR) or book-tax differences (BTD). However, firm-specific characteristics, such as family ownership, could simultaneously influence both REM and tax behavior, potentially creating an indirect relationship.

This context points to the need for a closer examination of how REM may interact with tax-minimization practices in family firms. Yet, despite its relevance, no prior research has specifically addressed this relationship. Nevertheless, existing evidence on the broader nexus between REM and tax-related behavior remains mixed. For example, Ekawati (2025) finds that, in Indonesia, REM through sales manipulation, measured by ABOCF, is negatively associated with tax aggressiveness, likely to avoid drawing the attention of tax authorities, regulators, and vigilant investors, while other REM components (ABSGE and ABPROD) show no significant association. Consistently, Kałdoński and Jewartowski (2020) provide evidence that benchmark-beating firms in Poland engaging in REM (captured through ABOCF, ABSGE, and ABPROD) are less tax aggressive than their peers, supporting the view that such firms refrain from aggressive tax planning to avoid regulatory scrutiny. By contrast, Machdar (2022) finds that, in Indonesia, tax avoidance is positively associated with REM via ABOCF and ABSGE, while showing no significant association with ABPROD. This divergence is further

illustrated in broader findings: Abubakar et al. (2021) document, in Nigeria, a positive association between tax avoidance and REM, noting that while tax avoidance reduces liabilities, thereby freeing up cash for dividends, its opaque nature may also incentivize managers to engage in real activity manipulation for their own interests. Further, Baatwah and Hussainey (2024) show that, in Oman, the disclosure of key audit matters is associated with greater tax avoidance, and that this link is partially mediated by REM via ABOCF, while other REM components play no significant role. Conversely, in the Spanish context, Sánchez-Ballesta and Yagüe (2021) find that, among SMEs, when financial-reporting incentives are high, upward accrual and REM take precedence, and nonconforming tax avoidance declines, indicating that meeting reporting benchmarks prevails over tax minimization in those settings.

Concerning family business research, evidence consistently shows that family firms differ from nonfamily firms in their use of REM, though the direction and magnitude of this difference vary across contexts. Ma and Ma (2024) find that, in the Chinese context, family firms generally engage in less REM than nonfamily firms, yet their use of REM rises more sharply under earnings pressure. In contrast, Phan (2024) finds that Vietnamese family firms employ more REM and accrual-based earnings management than their nonfamily counterparts, which translates into lower earnings quality. Ownership structure also shapes these patterns: Nuhu et al. (2024) and Potharla (2026) observe that higher family ownership is associated with lower REM, with Nuhu et al. (2024) in Malaysia reporting consistent reductions across all proxies, while Potharla (2026) in India finds the effect is driven by cuts in discretionary expenses and overproduction, with no significant impact on sales-driven REM. Extending this ownership-structure perspective, Chen et al. (2023) provide evidence that, in the Taiwanese context, family-controlled firms engage in greater REM than their nonfamily counterparts only when they hold high excess control rights, that is, when their voting rights substantially exceed their cash-flow rights. Beyond the family nonfamily divide, Sundkvist and Stenheim (2023) find that family-named firms in Norway engage in less accrual-based earnings management but are more likely to substitute it with REM, particularly when detection risk is high, and Weng et al. (2025) show that female successors in Chinese family firms use downward REM to cope with identity conflict and legitimacy pressures during succession.

Building on this dual body of evidence, one stream linking REM to tax-related behavior with mixed and sometimes contradictory results, and another revealing that family firms display distinctive REM patterns compared to nonfamily firms, this study adopts the restricted SEW perspective (Bauweraerts et al., 2024) to explain how REM may shape CIT minimization behavior in family firms. In Brazil, where family firms are more tax aggressive than nonfamily ones (Martinez & Ramalho, 2014), this lens helps explain such behavior. The restricted SEW orientation may lead families to prioritize immediate gains through earnings management and tax strategies. Based on this reasoning, we propose the following hypotheses:

H_2: ABOCF positively influences CIT minimization in family firms.

H_3: ABSGE positively influences CIT minimization in family firms.

H_4: ABPROD positively influences CIT minimization in family firms.

3. METHODOLOGY

3.1 Sample Selection

Initially, financial data from the consolidated financial statements of all 355 nonfinancial companies listed on Brazil's official stock exchange (B3), covering the period from 2016 to 2022, were collected from the Economatica® database. Additional information was then gathered from management reports and financial statement notes, sourced from the Brazilian Securities and Exchange Commission's (Comissão de Valores Mobiliários [CVM]) website and other public sources, such as company websites. Exclusions were made as shown in Table 1, resulting in a final sample of 710 firm-year observations from 142 nonfinancial companies, spanning from 2018 to 2022, of which 410 year-observations (82 firms) correspond to nonfamily firms and 300 year-observations (60 firms) correspond to family firms. Data from 2016 and 2017 were used exclusively to calculate lagged total assets, change in sales, and lagged change in sales, used in the REM econometric models. The years 2023 and 2024 were not included due to changes in Brazil's transfer pricing rules implemented in 2023, which may affect comparability.

Table 1

Step-by-step exclusion process of companies for analysis

Steps	Exclusion criteria	Excluded	Remaining
Initial sample			355
Exclusion 1	Excluded companies with taxable profit missing, zero, or negative in any year from 2018 to 2022	143	212
Exclusion 2	Excluded companies with total assets missing or zero in 2017	9	203
Exclusion 3	Excluded companies undergoing judicial recovery in any year from 2018 to 2022	11	192
Exclusion 4	Excluded nonoperational companies (holdings)	50	142

Source: *Elaborated by the authors.*

Financial companies were not included in the sample due to their unique characteristics, which make them unsuitable for comparison with nonfinancial ones.

3.2 Variables and Measurement

Dependent variables.

This study uses CIT minimization as the dependent variable in the econometric models. To capture the level of CIT minimization, the ETR is used, defined as the ratio of total tax expenses (current plus deferred) to pretax book income (Bauweraerts et al., 2024; Brune et al., 2019; Chakroun & Ben Amar, 2025; Chen et al., 2010; Gaaya et al., 2017; López-González et al., 2019; Martinez et al., 2022; Martinez & Ramalho, 2014; Steijvers & Niskanen, 2014). This proxy prevents the influence of tax deferral strategies on the measure of CIT (Hanlon & Heitzman, 2010). ETR values were winsorized at the 5th and 95th percentiles to reduce the effect of outliers.

To ensure the robustness of the findings, an additional proxy is employed , the BTD, calculated as the firm's pretax book income minus estimated taxable income scaled by lagged total assets (Martinez & Ramalho, 2014; Souguir et al., 2024). Estimated taxable

income is calculated by dividing the current tax expense by Brazil's statutory tax rate of 34%. BTD values were also winsorized at the 5th and 95th percentiles.

Both proxies capture nonconforming CIT minimization but do not account for conforming CIT minimization (Hanlon & Heitzman, 2010). However, this limitation is not expected to significantly impact the results, as conforming CIT minimization is uncommon among public companies due to accounting constraints, external audits, and market oversight.

Family firm variable.

Family firms are defined as companies where founders or their relatives hold significant ownership and simultaneously occupy top management positions, such as chairperson or CEO. While Martinez and Ramalho (2014) used a 5% ownership threshold, also common in other contexts (e.g., Chen et al. [2010] and Özbay et al. [2023]), and Santos and Silva (2018) applied a more restrictive definition requiring family participation above 15% of ordinary shares, our study adopts a 10% cutoff to capture substantial family control in Brazil. This criterion is consistent with Oliveira et al. (2022) and, within our sample, represents the minimum family ownership threshold observed when managerial involvement is considered (see Table 2, variable family ownership [FOWN]). Accordingly, the variable FAMILY is a dummy variable coded as 1 for family firms and 0 otherwise.

Table 2

Descriptive statistics

				95%CI				Percentiles		
	FAMILY	**Mean**	**SD**	**Lower limit**	**Upper limit**	**Min**	**Max**	**25th**	**50th**	**75th**
ETR	0	0.21	0.19	0.19	0.22	-0.48	0.72	0.13	0.22	0.30
	1	0.16	0.21	0.14	0.18	-0.48	0.72	0.05	0.17	0.29
ABOCF	0	0.01	0.20	-0.01	0.03	-0.88	1.39	-0.08	-0.01	0.08
	1	-0.06	0.22	-0.09	-0.04	-1.14	1.29	-0.15	-0.04	0.05
ABSGE	0	0.00	0.06	-0.01	0.00	-0.25	0.21	-0.03	0.00	0.02
	1	0.02	0.11	0.01	0.03	-0.26	0.41	-0.04	0.00	0.06
ABPROD	0	-0.01	0.10	-0.02	0.00	-0.40	0.30	-0.06	-0.01	0.04
	1	-0.02	0.13	-0.03	-0.00	-0.43	0.64	-0.08	-0.02	0.05
ROA	0	6.23	9.25	5.33	7.13	-45.88	85.47	1.81	5.40	9.92
	1	4.88	7.61	4.02	5.75	-30.88	31.26	1.89	4.56	8.58
LEV	0	0.35	0.24	0.32	0.37	0.01	1.93	0.18	0.34	0.47
	1	0.32	0.20	0.30	0.34	0.00	1.35	0.18	0.29	0.42
PPPE	0	0.20	0.20	0.18	0.22	0.00	0.80	0.01	0.16	0.33
	1	0.22	0.21	0.19	0.24	0.00	0.75	0.02	0.17	0.38
PINT	0	0.18	0.20	0.16	0.20	0.00	0.82	0.01	0.08	0.31
	1	0.07	0.12	0.06	0.09	0.00	0.57	0.00	0.02	0.09
NLTAS	0	22.29	1.86	22.11	22.47	17.85	27.62	21.23	22.21	23.37
	1	21.54	1.57	21.36	21.72	17.64	25.62	20.40	21.59	22.67
EATT	1	0.25	0.09	0.24	0.26	0.06	0.50	0.19	0.26	0.32
FID	1	0.35	0.48	0.30	0.40	0.00	1.00	0.00	0.00	1.00
FGOV	1	0.42	0.17	0.40	0.44	0.15	0.92	0.29	0.40	0.55
FOWN	1	0.56	0.25	0.53	0.59	0.10	1.00	0.35	0.55	0.75

Note: *The dataset includes 410 year-observations for nonfamily firms and 300 for family firms.*
95%CI = 95% confidence interval; ABOCF = abnormal operating cash flows; ABPROD = abnormal production costs; ABSGE = abnormal discretionary expenses; EATT = emotional attachment; ETR denotes the effective tax rate; FGOV = family governance; FID = family identification; FOWN = family ownership; LEV = leverage; NLTAS = natural logarithm of total assets; PINT = proportion of intangibles; PPPE = proportion of property, plant, and equipment; ROA = return on assets; SD = standard deviation.
Source: *Elaborated by the authors.*

REM variables.

As REM-independent variables, the following are used: ABOCF, ABSGE, and ABPROD. The econometric models used to capture these variables follow the same criteria as those outlined by Roychowdhury (2006). Hence, ABOCF, ABSGE, and ABPROD are calculated as proxies for deviations in real operations from industry-year patterns.

Abnormal levels are computed as residuals from the following regression models, estimated cross-sectionally for each year and industry combination:

$$OCF_{i,t}/A_{i,t-1} = \alpha_0 + \alpha_1 \times (1/A_{i,t-1}) + \beta_1 \times (S_{i,t}/A_{i,t-1}) + \beta_2 \times (\Delta S_{i,t}/A_{i,t-1}) + \varepsilon_{i,t} \quad (1)$$

$$SGE_{i,t}/A_{i,t-1} = \alpha_0 + \alpha_1 \times (1/A_{i,t-1}) + \beta \times (S_{i,t-1}/A_{i,t-1}) + \varepsilon_{i,t} \quad (2)$$

$$PROD_{i,t}/A_{i,t-1} = \alpha_0 + \alpha_1 \times (1/A_{i,t-1}) + \beta_1 \times (S_{i,t}/A_{i,t-1}) + \beta_2 \times (\Delta S_{i,t}/A_{i,t-1}) + \beta_3 \times (\Delta S_{i,t-1}/A_{i,t-1}) + \varepsilon_{i,t} \quad (3)$$

where OCF signifies cash flow from operations, SGE denotes selling and general expenses, and PROD represents the sum of the cost of goods sold (COGS) and inventory changes; A_t is the total assets at the end of period t, and S_t is the sales during period t (Roychowdhury, 2006).

ABOCF is calculated by running an ordinary least squares (OLS) regression with the terms from Eq. 1 for each industry-year combination (Roychowdhury, 2006). For the first term ($OCF_{i,t}/A_{i,t-1}$), OCF is calculated as demonstrated in the appendix of Roychowdhury (2006): $OCF = \pi \times S_t - \Delta S_t$, where: π = gross profit margin = $(S_t - COGS)/S_t$. The residual from the regression in Eq. 1 is then isolated and subtracted from the first term to determine the normal (standard) OCF for each firm and year. Finally, ABOCF is obtained by subtracting the standard OCF from the actual cash flow from operations as reported in the company's cash flow statement.

ABSGE is calculated by running an OLS regression with the terms from Eq. 2 for each industry-year pair (Roychowdhury, 2006). The first term ($SGE_{i,t}/A_{i,t-1}$) is calculated using SGE figures obtained from the statement of profit or loss. ABSGE is the residual of the regression.

ABPROD is estimated by running an OLS regression with the terms from Eq. 3 for each industry-year combination (Roychowdhury, 2006). The first term ($PROD_{i,t}/A_{i,t-1}$) is computed as the COGS and inventory changes (inventory reduction from the cash flow statement multiplied by -1). ABPROD is the residual of the regression.

To prevent overcounting, proxies that combine these variables are not used, as each can influence the others.

Control variables.

To account for the relationship between CIT minimization and the independent variables, additional controls are included in the models:

Emotional attachment (EATT): a SEW dimension (Berrone et al., 2012) indirectly measured through content analysis of top management messages in annual reports (Latrous et al., 2024), using the *sentimentr* package in R (Rinker, 2021). The algorithm identifies sentiment-bearing words and intensity modifiers to compute a polarity score, averaged across each message to produce a continuous EATT index ranging from -1 (highly negative) to +1 (highly positive), which serves as a proxy for the chairperson's emotional tone and, by extension, the family's emotional attachment to the firm. For parsimony in selecting the reference year, EATT is measured as a time-invariant, firm-level variable based on the chairperson's message from 2022. For illustration, expressions such as "great achievements" or "immensely grateful" are classified as positive sentiment, while more cautious statements (e.g., references to a potential rise in interest rates) attenuate polarity. Sentence-level sentiment scores are aggregated across the full message to obtain a single document-level EATT score.

Family members' identification with the firm (FID): a SEW dimension (Berrone et al., 2012) indirectly measured as a dummy variable, taking the value 1 if the family name appears in the firm's name and 0 otherwise (Chalevas et al., 2024; Latrous et al., 2024).

Family governance (FGOV): a SEW dimension (family control and influence) (Berrone et al., 2012) indirectly measured as the weighted percentage of family members on the board of directors and executive board, with weights reflecting positional influence: chairperson (5), CEO (4), vice-chairperson (3), vice-CEO (2), CFO (2), and other members (1).

FOWN: a SEW dimension (family control and influence) (Berrone et al., 2012) indirectly measured as the percentage of shares held by family members.

Leverage (LEV): long-term debts divided by total assets.

Return on assets (ROA): net result scaled by total assets.

Proportion of plant, property, and equipment (PPPE): proportion of PPE in total assets.

Natural logarithm of total assets (NLTAS): natural logarithm of total assets.

Proportion of intangible assets (PINT): proportion of intangibles in total assets.

CEO duality (DUALCEO): dummy, 1 if the CEO is also the chairman, 0 otherwise.

Independent audit committee (IACOMM): dummy, 1 if the audit committee is composed mostly of independent directors, chaired by an independent member, and excludes executives or family representatives from decision-making roles; 0 otherwise. This variable captures the existence of an autonomous monitoring body in accordance with CVM and B3 governance requirements.

Suspect firms (SUSPECT): dummy, 1 for observations where net income divided by lagged total assets is between 0 and 0.01, and 0 otherwise (Sánchez-Ballesta & Yagüe, 2021).

Manufacturing firms (MANUFAC): dummy, 1 for manufacturing firms, 0 otherwise.

Controlling for business and family characteristics avoids omitted-variable bias and ensures that FAMILY and REM effects capture behavior rather than structure. Firm-level controls (ROA, LEV, PPPE, PINT, NLTAS) reflect economic incentives, governance controls (DUALCEO, IACOMM) capture managerial power and monitoring, and structural controls (MANUFAC, SUSPECT) account for industry effects. Family-related variables (EATT, FID, FGOV, FOWN), although theoretically linked to SEW and potentially explanatory on their own, are treated as informed controls to isolate behavioral effects. Particularly regarding EATT and FID, following Berrone et al. (2012), these variables capture distinct yet complementary SEW dimensions: EATT reflects managers' emotional tone, while FID represents the family's symbolic identification with the firm through its name (Chalevas et al., 2024; Latrous et al., 2024). Using different data sources – sentiment versus family-name cues – mitigates construct overlap.

Theoretical regression models.

To empirically assess the effect of family ownership characteristics on CIT minimization, proxied by ETR, we estimate a panel regression model employing Prais-Winsten estimation with panel-corrected standard errors (PCSE) (Beck & Katz, 1995). The model is estimated on the full sample of family and nonfamily firms, serving as a specification to capture the direct association between family ownership and ETR:

$$ETR_{i,t} = \beta_0 + \beta_1 FAMILY_{i,t} + \beta_2 MANUFAC_{i,t} + \beta_3 IACOMM_{i,t} + \beta_4 DUALCEO_{i,t} + \beta_5 ROA_{i,t} + \beta_6 LEV_{i,t} + \beta_7 PPPE_{i,t} + \beta_8 PINT_{i,t} + \beta_9 NLTAS_{i,t} + \varepsilon_{i,t} \quad \text{(Model 1)}$$

To investigate the effect of REM on the CIT minimization strategies of family firms, we apply a PCSE regression restricted to the family firm subsample:

$$ETR_{i,t} = \beta_0 + \beta_1 ABOCF_{i,t} + \beta_2 ABSGE_{i,t} + \beta_3 ABPROD_{i,t} + \beta_4 EATT_{i,t} + \beta_5 FID_{i,t} + \beta_6 FGOV_{i,t} + \beta_7 FOWN_{i,t} + \beta_8 SUSPECT_{i,t} + \beta_9 MANUFAC_{i,t} + \beta_{10} IACOMM_{i,t} + \beta_{11} DUALCEO_{i,t} + \beta_{12} ROA_{i,t} + \beta_{13} LEV_{i,t} + \beta_{14} PPPE_{i,t} + \beta_{15} PINT_{i,t} + \beta_{16} NLTAS_{i,t} + \varepsilon_{i,t} \quad \text{(Model 2)}$$

For comparative purposes, and to assess whether the effect of REM on ETR holds across different ownership settings, we estimate two additional models, applying PCSE regression to the subsample of nonfamily firms and to the full sample:

$$ETR_{i,t} = \beta_0 + \beta_1 ABOCF_{i,t} + \beta_2 ABSGE_{i,t} + \beta_3 ABPROD_{i,t} + \beta_4 SUSPECT_{i,t} + \beta_5 MANUFAC_{i,t} + \beta_6 IACOMM_{i,t} + \beta_7 DUALCEO_{i,t} + \beta_8 ROA_{i,t} + \beta_9 LEV_{i,t} + \beta_{10} PPPE_{i,t} + \beta_{11} PINT_{i,t} + \beta_{12} NLTAS_{i,t} + \varepsilon_{i,t} \quad \text{(Models 3 and 4)}$$

4. RESULTS

4.1 Descriptive Analysis

Table 2 reports the descriptive statistics. Family firms consistently show lower ETRs than their nonfamily counterparts (16% vs. 21% on average), a pattern that persists across the distribution and points to greater tax minimization in family firms. For REM, family firms appear less prone to sales manipulation via abnormal cash flows, while discretionary expenses and production costs are similar across groups, suggesting a more conservative profile mainly in the ABOCF dimension. In terms of firm characteristics, family firms tend to be smaller and less leveraged. They also show lower profitability, greater reliance on tangible assets, and markedly less use of intangibles compared to nonfamily firms.

Within the family firm group, ownership is highly concentrated, with family stakes averaging 56% and ranging from the 10% threshold to full ownership. This strong concentration reinforces the influence of founding families over governance and decision-making, providing a structural basis for the distinctive tax and REM behaviors observed in this group.

4.2 Regression Analysis

To test our hypotheses, we ran PCSE regressions, which correct for heteroskedasticity, contemporaneous correlation across panels, and panel-specific AR(1) autocorrelation (Beck & Katz, 1995), using Stata (v. 19). We also calculated variance inflation factors (VIFs) to detect potential multicollinearity problems. The highest VIF value in our models was 2.39, well below the recommended threshold of 5. Therefore, multicollinearity is unlikely to be a concern in our regression analysis.

Table 3 presents the results of the regression analysis. Model 1 indicates that the coefficient for FAMILY is negative and statistically significant ($\beta = -0.039$, $p < 0.01$), suggesting that, on average, family-owned firms have an ETR that is 3.9% lower than that of nonfamily-owned firms, controlling for other factors in the model. This finding supports H_1. Among the control variables, PINT is positively and significantly associated with ETR ($\beta = 0.106$, $p < 0.01$), indicating that firms with higher intangible assets tend, on average, to report higher ETRs. In contrast, the other control variables do not show significant relationships with ETR. Model 2 (for family firms) indicates that the coefficient for ABOCF is negative and statistically significant ($\beta = -0.131$, $p < 0.01$), suggesting that a one-unit increase in ABOCF is associated with an approximate 13.1% reduction in ETR, holding all else constant. This finding supports H_2. In contrast, the coefficients for ABSGE and ABPROD are statistically insignificant, providing no support for H_3 and H_4.

Regarding the control variables in Model 2, some relevant patterns emerge. Among the SEW-related measures, EATT is negative and statistically significant ($\beta = -0.374$, $p < 0.05$). This magnitude implies that a one-unit increase in the sentiment score of top management communication is associated with a 37.4% reduction in ETR. In contrast, FID, FGOV, and FOWN show no significant relationship with ETR, indicating that neither the presence of a family name in the firm's name, nor the proportion of family members in governance positions, nor varying levels of family ownership systematically influence tax outcomes. Among governance and firm-characteristic controls, DUALCEO is positive and significant ($\beta = 0.074$, $p < 0.05$), indicating that CEO duality is associated with higher ETR, which may reflect more conservative tax behavior under centralized leadership. ROA is also positive and significant ($\beta = 0.006$, $p < 0.01$), suggesting that

more profitable family firms tend to report higher ETRs. PINT is positive and significant ($\beta = 0.234$, $p < 0.05$), indicating that family firms with larger intangible asset bases are possibly linked to less aggressive tax minimization. The remaining controls – SUSPECT, MANUFAC, IACOMM, LEV, PPPE, and NLTAS – do not exhibit statistically significant relationships with ETR in this model. For comparison purposes, the results from Models 3 and 4 show that REM practices – measured by ABOCF, ABSGE, and ABPROD – do not exhibit statistically significant effects on CIT minimization, whether in the subsample of nonfamily firms (Model 3) or in the full sample (Model 4).

Table 3

PCSE Regressions on ETR

Variable	**Model 1**	**Model 2**	**Model 3**	**Model 4**
Intercept	0.222 **	-0.099	0.353	0.179 *
FAMILY	-0.039 ***			
MANUFAC	0.026	-0.019	0.051	0.015
IACOMM	0.007	0.048	-0.008	0.012
DUALCEO	0.015	0.074 **	-0.033	0.021
ROA	0.000	0.006 ***	-0.001	0.001
LEV	-0.084	-0.052	-0.069	-0.080 *
PPPE	-0.035	0.001	-0.050	-0.037
PINT	0.106 ***	0.234 **	0.052	0.122 ***
NLTAS	-0.001	0.014	-0.006	0.000
ABOCF		-0.131 ***	-0.014	-0.041
ABSGE		0.231	-0.010	0.070
ABPROD		-0.086	-0.094	-0.068
EATT		-0.374 **		
FID		0.008		
FGOV		0.002		
FOWN		-0.004		
SUSPECT		0.003	0.039	0.021
Observations	710	300	410	710
No. of groups	142	60	82	142
Balanced panel	Yes	Yes	Yes	Yes
R^2	0.19	0.20	0.25	0.19
Wald chi-square	104.44 ***	259.86 ***	35.40 ***	114.29 ***
Highest VIF	1.29	2.39	1.51	1.80

Notes: *All models were estimated using Prais-Winsten regression with panel-corrected standard errors (PCSE), accounting for panel-specific AR(1) autocorrelation and cross-sectional correlation. Standard errors are robust to heteroskedasticity and contemporaneous correlation.*

ABOCF = abnormal operation cash flow; ABPROD = abnormal production costs; ABSGE = abnormal sales and general expenses; DUALCEO = CEO and chairman duality; EATT = emotional attachment; ETR = effective tax rate; FAMILY = family firms; FGOV = family governance; FID = family identification; FOWN = family ownership; IACOMM = independent audit committee; LEV = leverage; MANUFAC = manufacturing firms; NLTAS = natural logarithm of total assets; PINT = proportion of intangible assets; PPPE = proportion of plant, property, and equipment; ROA = return on assets; SUSPECT = suspect firms; VIF = variance inflation factor.

** = p < 0.10; ** = p <0 .05; *** = p < 0.01.*

Source: *Elaborated by the authors.*

Among the three REM proxies, only ABOCF exhibited a statistically significant effect, and exclusively within family firms. For this reason, Figure 1 focuses on the predictive margins of ABOCF, illustrating how ETR responds to variations in ABOCF across the three subsamples. The plots show a steeper negative slope for family firms, whereas the lines for nonfamily and all firms exhibit gentler slopes.

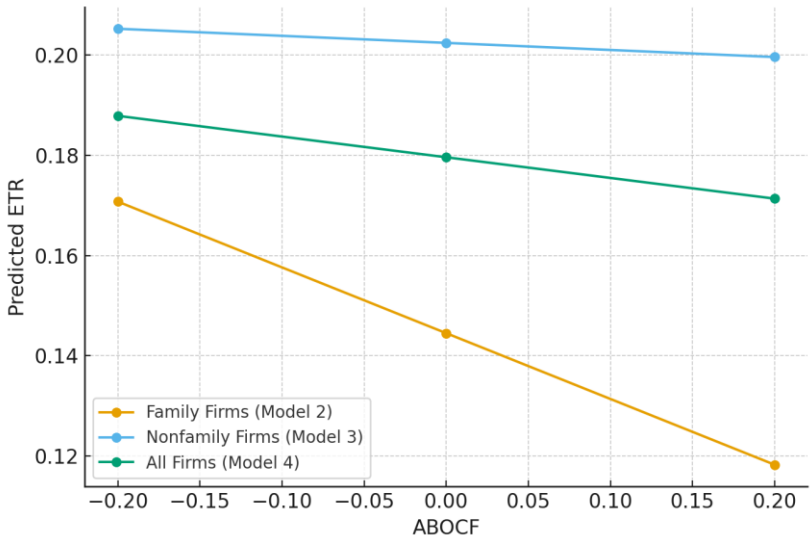

Figure 1 *Estimated predictive margins of abnormal operating cash flows (ABOCF) on effective tax rate (ETR)*
Source: *Elaborated by the authors.*

Robustness analysis.

As shown in Table 4, when BTD is used as the dependent variable, the robustness test for Model 1 corroborates the main findings obtained with ETR. The coefficient for FAMILY is positive and statistically significant ($\beta = 0.009$, $p < 0.05$), indicating that, on average, family-owned firms exhibit higher BTD values than nonfamily-owned firms. Since a higher BTD reflects greater divergence between accounting and taxable income, this result reinforces the evidence that family firms are more tax aggressive.

Table 4
PCSE Regressions on BTD

Variable	Robustness test for Model 1		Robustness test for Model 2	
Intercept	-0.126	***	-0.094	**
FAMILY	0.009	**		
MANUFAC	0.002		-0.003	
IACOMM	-0.003		-0.009	
DUALCEO	0.004		0.003	
ROA	0.004	***	0.007	***
LEV	-0.028	**	-0.009	
PPPE	-0.017		-0.012	
PINT	-0.031	**	-0.083	**
NLTAS	0.006	***	0.005	***
ABOCF			-0.016	

ABSGE			0.008	
ABPROD			-0.004	
EATT			0.049	***
FID			0.005	***
FGOV			-0.013	
FOWN			-0.032	***
SUSPECT			0.003	
Observations	710		300	
No. of groups	142		60	
Balanced panel	Yes		Yes	
R^2	0.54		0.71	
Wald chi-square	701.27	***	12009.81	***
Highest VIF	1.29		2.39	

Notes: *All models were estimated using Prais-Winsten regression with panel-corrected standard errors (PCSE), accounting for panel-specific AR(1) autocorrelation and cross-sectional correlation. Standard errors are robust to heteroskedasticity and contemporaneous correlation.*
ABOCF = abnormal operation cash flow; ABPROD = abnormal production costs; ABSGE = abnormal sales and general expenses; BTD = book-tax differences; DUALCEO = CEO and chairman duality; EATT = emotional attachment; FAMILY = family firms; FGOV = family governance; FID = family identification; FOWN = family ownership; IACOMM = independent audit committee; LEV = leverage; MANUFAC = manufacturing firms; NLTAS = natural logarithm of total assets; PINT = proportion of intangible assets; PPPE = proportion of plant, property, and equipment; ROA = return on assets; SUSPECT = suspect firms; VIF = variance inflation factor.
** = p < 0.10; ** = p <0 .05; *** = p < 0.01.*
Source: *Elaborated by the authors.*

In the robustness test for Model 2 using BTD, the coefficient for ABOCF is negative and not statistically significant ($\beta = -0.016$, $p > 0.10$), suggesting no association between sales-driven REM and aggressive tax behavior in family firms, unlike the earlier ETR-based results. Furthermore, ABSGE and ABPROD remain insignificant across models, reinforcing that the manipulation of discretionary expenses or production costs does not affect CIT minimization.

5. DISCUSSION

This study consistently finds that Brazilian family firms engage in more aggressive CIT minimization than nonfamily firms, as reflected in an average reduction of about 3.9% in ETR, a result further confirmed in the robustness test using BTD. These findings are in line with prior Brazilian evidence reported by Martinez and Ramalho (2014), who likewise document lower ETRs and higher BTDs in family firms. Such behavior is consistent with the concept of restricted SEW (Bauweraerts et al., 2024), which suggests that family firms may prioritize short-term financial gains while disregarding reputational risks, making aggressive tax strategies particularly appealing. Moreover, Brazil's highly complex tax system and its notably high corporate tax burden create strong incentives for firms to pursue tax minimization strategies (Jacob, 2018; Moura de Carvalho et al., 2024; Oliveira et al., 2025; Rathke, 2021). In this context, ownership concentration and managerial control of family firms enable them to actively shape their tax planning

strategies, leveraging their governance structure to balance potential benefits and risks (Parisi & Federici, 2023).

Regarding the effect of REM on tax behavior in family firms, the findings reveal a negative and statistically significant relationship between ABOCF and ETR, where a one-unit increase in ABOCF corresponds to an approximate 13.1% reduction in ETR. This suggests that REM activities through sales manipulation, such as boosting sales by offering rebates and flexible credit terms at the end of the year, thereby shifting sales from the following year to the current one (Machdar, 2022; Roychowdhury, 2006), may create conditions that indirectly encourage CIT minimization practices in Brazilian family firms. In this sense, the incentive to minimize corporate taxes appears to stem from the liquidity impact of ABOCF rather than a direct effect, as REM is typically book-tax conforming. This behavior is also consistent with the restricted SEW perspective (Bauweraerts et al., 2024).

Unlike ABOCF, the results show that neither ABSGE nor ABPROD significantly affect CIT minimization strategies in family firms. This difference can be explained by ABOCF's direct impact on short-term liquidity. Manipulating cash flows, such as boosting sales through rebates and more lenient credit terms, improves current cash flow but reduces future cash flows (Machdar, 2022; Roychowdhury, 2006), creating an incentive to minimize taxes immediately to offset future losses. In contrast, ABSGE and ABPROD, which involve adjusting expenses and production levels, do not have the same immediate impact on liquidity. Since these forms of REM affect cost structures and profitability over time, they may not create the same urgency to minimize taxes, explaining their lack of significance in tax minimization in the models tested.

Furthermore, additional regression analyses reveal that none of the REM proxies significantly influence tax behavior in the subset of nonfamily firms or in the full sample. This reinforces the view that family firm characteristics shape both REM, particularly ABOCF, and CIT minimization, suggesting that the indirect relationship between ABOCF and tax behavior is conditional on family firm characteristics. These findings underscore the importance of analyzing family and nonfamily firms comparatively when assessing the interplay between tax behavior and REM practices, as aggregating the two groups could obscure meaningful effects through the offsetting influence of their inherently distinct behavioral patterns.

Although ETR results show a negative relationship with ABOCF in family firms, this evidence is not confirmed when using BTD. This divergence stems from conceptual differences between the proxies. ETR captures the period's effective tax burden, reflecting the net impact of temporary differences, whereas BTD measures the gap between accounting and taxable income, aggregating temporary and permanent components and, in Brazil, multiple regulatory adjustments. In a high book-tax conformity setting, such adjustments may weaken BTD's sensitivity to liquidity-driven effects of ABOCF. Despite its own limitations as a ratio incorporating deferred taxes, ETR appears more responsive to the indirect (liquidity-based) channel indicated by our findings.

Regarding the control variables, particular attention is given to those capturing SEW dimensions (Berrone et al., 2012). Emotional attachment, measured through the sentiment expressed in top management messages in annual reports, shows a strong link to tax minimization: a one-point increase in the EATT score is associated with an estimated 37.4% reduction in ETR. Even modest changes in sentiment (e.g., 0.1 or 0.2 points) correspond to economically meaningful reductions of approximately 4% to 7% in ETR, underscoring the substantive role of emotional attachment in shaping tax behavior. This result is fully consistent with theorization around restricted SEW (Bauweraerts et

al., 2024). Strong affective commitment may coexist with, or even reinforce, short-term financial behaviors intended to preserve resources under family control. This empirical finding contrasts with Latrous et al. (2024), who, in a different institutional setting, examine the link between SEW dimensions and CSR performance. Analyzing Canadian public family firms, they show that emotional attachment is positively associated with CSR, as families leverage affective ties to safeguard their reputation. The comparison underscores that emotional attachment is a powerful lever shaping strategic behavior, but its effects diverge across institutional and behavioral contexts, driving aggressive tax minimization in Brazil while fostering socially responsible conduct in Canada. For family identification, proxied by the presence of the family name in the corporate name, family governance, measured as the weighted proportion of family members in governance roles, and varying levels of family ownership, no systematic association with tax outcomes is observed, suggesting that these symbolic or structural dimensions alone may be insufficient to consistently shape corporate tax behavior in the Brazilian context. Similarly, Latrous et al. (2024), in the Canadian setting, find that family governance, when considered separately as the proportion of family directors on the board, is not significantly associated with CSR performance, although it contributes to a positive effect when aggregated with ownership and management in their broader family control and influence measure. In contrast, their results show that family identification is positively associated with CSR, suggesting that reputational concerns may motivate socially responsible actions, and family ownership, when combined with family involvement in management, is positively associated with CSR outcomes, underscoring that ownership concentration shapes strategic behavior.

6. CONCLUSION

The objective of this article is to explore the influence of family ownership on CIT minimization practices in the Brazilian socioeconomic context. Furthermore, the study seeks to evaluate the impact of REM activities (ABOCF, ABSGE, and ABPROD) on CIT minimization within Brazilian family firms. The empirical evidence suggests that Brazilian family firms adopt more aggressive tax strategies compared to their nonfamily counterparts, corroborating prior Brazilian evidence from Martinez and Ramalho (2014). This behavior aligns with restricted SEW (Bauweraerts et al., 2024), suggesting that family firms prioritize short-term gains over reputational risks, making aggressive tax strategies appealing. Additionally, in family firms, ABOCF negatively influences the ETR, suggesting that sales-driven strategies like rebates and credit flexibility encourage CIT minimization strategies, also consistent with the restricted SEW perspective. However, ABSGE and ABPROD show no impact.

While this study confirms prior evidence on the tax behavior of Brazilian family firms and is the first to examine how REM shapes their tax strategies, it also opens avenues for further exploration. Most SEW-related proxies are structural and indirect, failing to capture the emotional, symbolic, and relational dimensions that define SEW. Even emotional attachment, though derived from content analysis and aligned with prior research, remains limited by linguistic and contextual interpretation. Future studies in Brazil should adopt survey-based, content-analytic, or mixed-method approaches (Berrone et al., 2012) to measure these dimensions more directly and enhance the empirical assessment of SEW's influence on family firms' tax behavior. Moreover, the 2023 changes in Brazil's transfer pricing rules provide a timely opportunity to compare tax behavior before and after their implementation.

In addition to outlining directions for future research, this study provides important theoretical and practical implications for understanding the tax behavior of family firms. In institutional contexts with weak reputational enforcement, restricted SEW orientations tend to drive family firms toward short-term, tax-minimizing behavior. Strengthening governance mechanisms that embed broader SEW concerns can help foster long-term sustainability. The findings also offer insights for scholars, policymakers, and practitioners seeking to align tax behavior with sustainable socioemotional goals, while advancing SEW theory by revealing how ownership concentration and family priorities shape tax decisions in Brazil's complex, high-burden tax system.

Some methodological limitations warrant consideration. The focus on Brazilian nonfinancial listed firms limits generalizability to private, financial, or other institutional contexts. Unobserved factors may introduce omitted-variable bias, and endogeneity cannot be fully ruled out given the potential simultaneity between REM and tax behavior. The tax proxies (ETR and BTD) mainly capture nonconforming CIT minimization, possibly omitting conforming strategies. The 2018-2022 pre-reform period constrains the temporal generalizability of the findings. Moreover, the results should be interpreted as theory-consistent associations, grounded in the SEW framework, rather than as evidence of causal relationships.

REFERENCES

Abubakar, A. H., Mansor, N., & Wan-Mohamad, W. I. A. (2021). Corporate tax avoidance, free cash flow and real earnings management: Evidence from Nigeria. *Universal Journal of Accounting and Finance*, *9*(1), 86-97. https://doi.org/10.13189/ujaf.2021.090109

Alm, J., Martinez-Vazquez, J., & McClellan, C. (2016). Corruption and firm tax evasion. *Journal of Economic Behavior and Organization*, *124*, 146-163. https://doi.org/10.1016/j.jebo.2015.10.006

Almaharmeh, M. I., Shehadeh, A., Alkayed, H., Aladwan, M., & Iskandrani, M. (2024). Family ownership, corporate governance quality and tax avoidance: Evidence from an emerging market – The case of Jordan. *Journal of Risk and Financial Management*, *17*(2), 86. https://doi.org/10.3390/jrfm17020086

Anesa, M., Gillespie, N., Spee, A. P., & Sadiq, K. (2019). The legitimation of corporate tax minimization. *Accounting, Organizations and Society*, *75*, 17-39. https://doi.org/10.1016/j.aos.2018.10.004

Araújo, V. C., Góis, A. D., Luca, M. M. M., & Lima, G. A. S. F. (2020). CEO narcissism and corporate tax avoidance. *Revista Contabilidade & Finanças*, *32*(85), 80-94. https://doi.org/10.1590/1808-057x202009800

Arregle, J.-L., Calabrò, A., Hitt, M. A., Kano, L., & Schwens, C. (2024). Family business and international business: Breaking silos and establishing a rigorous way forward. *Journal of World Business*, *59*(3), 101532. https://doi.org/10.1016/j.jwb.2024.101532

Arregle, J.-L., Hitt, M. A., Sirmon, D. G., & Very, P. (2007). The development of organizational social capital: Attributes of family firms. *Journal of Management Studies*, *44*(1), 73-95. https://doi.org/10.1111/j.1467-6486.2007.00665.x

Baatwah, S. R., & Hussainey, K. (2024). Does expanded disclosure in the audit report involve unintended consequences? Evidence from tax avoidance. *International Journal of Accounting & Information Management*, *32*(3), 447-474. https://doi.org/10.1108/IJAIM-04-2023-0086

Bauweraerts, J., Cirillo, A., & Sciascia, S. (2024). Socioemotional wealth and tax aggressiveness in private family firms: The role of the CEO's characteristics. *Family Business Review*, *37*(3), 370-395. https://doi.org/10.1177/08944865231223562

Beck, N., & Katz, J. N. (1995). What to do (and not to do) with time-series cross-section data. *American Political Science Review*, *89*(3), 634-647. https://doi.org/10.2307/2082979

Berrone, P., Cruz, C., & Gomez-Mejia, L. R. (2012). Socioemotional wealth in family firms: Theoretical dimensions, assessment approaches, and agenda for future research. *Family Business Review*, *25*(3), 258-279. https://doi.org/10.1177/0894486511435355

Brune, A., Thomsen, M., & Watrin, C. (2019). Family firm heterogeneity and tax avoidance: The role of the founder. *Family Business Review*, *32*(3), 296-317. https://doi.org/10.1177/0894486519831467

Bui, T. H. (2024). Past, present, and future of earnings management research. *Cogent Business & Management*, *11*(1), 2300517. https://doi.org/10.1080/23311975.2023.2300517

Chakroun, S., & Ben Amar, A. (2025). The IFRS adoption, corporate tax avoidance and the moderating effect of family ownership. *International Journal of Law and Management*, *67*(1), 16-36. https://doi.org/10.1108/IJLMA-06-2023-0135

Chalevas, C. G., Doukakis, L. C., Karampinis, N. I., & Pavlopoulou, O.-C. (2024). The impact of family ownership on tax avoidance: International evidence. *International Review of Financial Analysis*, *94*, 103317. https://doi.org/10.1016/j.irfa.2024.103317

Chen, C.-L., Weng, P.-Y., & Fan, H.-S. (2023). Exploring the role of excess control rights on real earnings management in family-controlled firms. *Journal of International Accounting, Auditing and Taxation*, *50,* 100526. https://doi.org/10.1016/j.intaccaudtax.2023.100526

Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are family firms more tax aggressive than non-family firms? *Journal of Financial Economics*, *95*(1), 41-61. https://doi.org/10.1016/j.jfineco.2009.02.003

Costa, F. de C. L., & Klann, R. C. (2023). Effects of the tax liability of managers on the relationship between tax infraction notices and tax avoidance. *Revista Contabilidade & Finanças*, *34*(93), e1792. https://doi.org/10.1590/1808-057x20231792.en

Ekawati, E. (2025). The relationships between ESG responsibility, earnings management, and tax aggressiveness: Evidence of the halo effect from Indonesia. *Journal of Indonesian Economy and Business*, *40*(1), 75-107. https://doi.org/10.22146/jieb.v40i1.10099

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, *26*(2), 301-325. https://doi.org/10.1086/467037

Ferreira, M. P., Ribeiro, A. M., & Vicente, E. F. R. (2025). The moderating effect of idiosyncratic risk on the market value of cash: A study of Brazilian family and non-family businesses. *Revista Contabilidade & Finanças*, *36*(97), e1875. https://doi.org/10.1590/1808-057x20241875.en

Gaaya, S., Lakhal, N., & Lakhal, F. (2017). Does family ownership reduce corporate tax avoidance? The moderating effect of audit quality. *Managerial Auditing Journal*, 32(7), 731-744. https://doi.org/10.1108/MAJ-02-2017-1530

Gomes, M. L., & Abreu, P. S. (2018). Corporate social responsibility and tax planning: From private to public regulation. *Revista de Direito Internacional Econômico e Tributário*, *13*(1), 422-448.

Gómez-Mejía, L. R., & Herrero, I. (2022). *Back to square one: The measurement of Socioemotional Wealth (SEW)*. *Journal of Family Business Strategy*,*13*(4), 100480. https://doi.org/10.1016/j.jfbs.2021.100480

Gomez-Mejia, L. R., Cruz, C., Berrone, P., & De Castro, J. (2011). The bind that ties: Socioemotional wealth preservation in family firms. *The Academy of Management Annals*, *5*(1), 653-707. https://doi.org/10.1080/19416520.2011.593320

Gómez-Mejía, L. R., Haynes, K. T., Núñez-Nickel, M., Jacobson, K. J. L., & Moyano-Fuentes, J. (2007). Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative Science Quarterly*, *52*(1), 106-137. https://doi.org/10.2189/asqu.52.1.106

Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics, 50*(2-3), 127-178. https://doi.org/10.1016/j.jacceco.2010.09.002

Jacob, M. (2018). A note on tax research. *Revista Contabilidade & Finanças*, *29*(78), 339-342. https://doi.org/10.1590/1808-057x201890280

Kałdoński, M., & Jewartowski, T. (2020). Do firms using real earnings management care about taxes? Evidence from a high book-tax conformity country. *Finance Research Letters*, *35*, 101351. https://doi.org/10.1016/j.frl.2019.101351

Kerr, J. N., Price, R., Román, F. J., & Romney, M. A. (2024). Corporate governance and tax avoidance: Evidence from governance reform. *Journal of Accounting and Public Policy*, *47*, 107232. https://doi.org/10.1016/j.jaccpubpol.2024.107232

Kovermann, J., & Wendt, M. (2019). Tax avoidance in family firms: Evidence from large private firms. *Journal of Contemporary Accounting and Economics*, *15*(2), 145-157. https://doi.org/10.1016/j.jcae.2019.04.003

Latrous, I., Kchaou, J., Ertz, M., & Mnif, Y. (2024). Corporate social responsibility in Canadian family businesses: A socioemotional wealth perspective. *International Journal of Financial Studies*, *12*(3), 68. https://doi.org/10.3390/ijfs12030068

López-González, E., Martínez-Ferrero, J., & García-Meca, E. (2019). Does corporate social responsibility affect tax avoidance: Evidence from family firms. *Corporate Social Responsibility and Environmental Management*, *26*(4), 819-831. https://doi.org/10.1002/csr.1723

Ma, L., & Ma, S. (2024). Strategic earnings management in family firms. *Accounting & Finance*, *64*(3), 2513-2544. https://doi.org/10.1111/acfi.13224

Machdar, N. M. (2022). Does tax avoidance, deferred tax expenses and deferred tax liabilities affect real earnings management? Evidence from Indonesia. *Institutions and Economies*, *14*(2), 117-148. https://doi.org/10.22452/IJIE.vol14no2.5

Martinez, A. L., & Ramalho, G. C. (2014). Family firms and tax aggressiveness in Brazil. *International Business Research*, *7*(3), 129-136. https://doi.org/10.5539/ibr.v7n3p129

Martinez, A. L., Santana Júnior, J. L. de, & Sena, T. R. (2022). Tax aggressiveness as a determining factor of conditional conservatism in Brazil. *Revista Contabilidade & Finanças*, *33*(90), e1484. https://doi.org/10.1590/1808-057x20221484.en

Moore, J. A., Suh, S., & Werner, E. M. (2017). Dual entrenchment and tax management: Classified boards and family firms. *Journal of Business Research, 79*, 161-172. https://doi.org/10.1016/j.jbusres.2017.06.007

Moura de Carvalho, R., Inácio, H. C., & Marques, R. P. (2024). An empirical analysis of tax evasion among companies engaged in stablecoin transactions. *Journal of Risk and Financial Management*, *17*(9), 400. https://doi.org/10.3390/jrfm17090400

Nuhu, M. S., Ahmad, Z., & Zhee, L. Y. (2024). The relationship between ownership structure and real earnings management practices: Evidence from Malaysian public companies. *Jurnal Pengurusan*, *72*. https://doi.org/10.17576/pengurusan-2024-72-2

Oliveira, R. M. de, Pimenta, D. P., Ferreira, M. P., & Ribeiro, A. M. (2022). Analysis of corporate acquisition on executive compensation: a study between Brazilian family and non-family firms. *Enfoque: Reflexão Contábil*, *41*(1), 131-146. https://doi.org/10.4025/enfoque.v41i1.53846

Oliveira, S. V. de, Nossa, S. N., Oliveira, E. S. de, & Beiruth, A. X. (2025). Tax aggressivity, government participation, and market risk of companies listed on B3. *Revista de Administração Mackenzie*, *26*(3), 1-26. https://doi.org/10.1590/1678-6971/eRAMF250125

Özbay, D., Adıgüzel, H., & Gökmen, M. K. (2023). Corporate social responsibility and tax avoidance: Channeling effect of family firms. *Journal of Corporate Accounting & Finance*, *34*(3), 11-30. https://doi.org/10.1002/jcaf.22610

Parisi, V., & Federici, D. (2023). Family firms' aggressive tax planning: An empirical evaluation for Italy. *Italian Economic Journal*, *9*, 1299-1327. https://doi.org/10.1007/s40797-022-00207-1

Phan, H. T. T. (2024). Earnings management in Vietnamese family firms: A comparative analysis with non-family firms. In P. T. Nghia, V. D. Thai, N. T. Thuy, L. H. Son, & V. N. Huynh (Eds.), *Advances in information and communication technology* (ICTA 2023, Lecture notes in networks and systems, Vol. 848, pp. 414-423). Springer. https://doi.org/10.1007/978-3-031-50818-9_44

Potharla, S. (2026). Dual dynamics of ownership: Family vs external shareholders' impact on real earnings management. *Asian Journal of Accounting Research*, *11*(1), 61-77. https://doi.org/10.1108/AJAR-12-2023-0430

Rathke, A. A. T. (2021). Profit shifting in Brazil and the impact of tax havens. *Revista Contabilidade & Finanças*, *32*(85), 95-108. https://doi.org/10.1590/1808-057x201910040

Ribeiro, J. P. M., Paulo, E., & Dal Magro, C. B. (2024). Transition between firm life cycle stages and earnings management strategies. *Revista Contabilidade & Finanças*, *35*(96), e1954. https://doi.org/10.1590/1808-057x20231954.en

Rinker, T. W. (2021). *sentimentr: Calculate text polarity sentiment* (Version 2.9.0) [R package]. Comprehensive R Archive Network (CRAN). https://CRAN.R-project.org/package=sentimentr

Roychowdhury, S. (2006). Earnings management through real activities manipulation. *Journal of Accounting and Economics*, *42*(3), 335-370. https://doi.org/10.1016/j.jacceco.2006.01.002

Sánchez-Ballesta, J. P., & Yagüe, J. (2021). Financial reporting incentives, earnings management, and tax avoidance in SMEs. *Journal of Business Finance & Accounting*, *48*(7-8), 1404-1433. https://doi.org/10.1111/jbfa.12519

Santos, T. R., & Silva, J. O. (2018). Does the influence of the family have any effect? Analysis of the remuneration of executives of family and nonfamily companies. *Revista de Contabilidade e Organizações*, *12*, e148149. https://doi.org/10.11606/issn.1982-6486.rco.2018.148149

Souguir, Z., Lassoued, N., & Bouzgarrou, H. (2024). CEO overconfidence and tax avoidance: Role of institutional and family ownership. *International Journal of Managerial Finance*, *20*(3), 768-793. https://doi.org/10.1108/IJMF-12-2022-0545

Steijvers, T., & Niskanen, M. (2014). Tax aggressiveness in private family firms: An agency perspective. *Journal of Family Business Strategy*, *5*(4), 347-357. https://doi.org/10.1016/j.jfbs.2014.06.001

Sundkvist, C. H., & Stenheim, T. (2023). Does family identity matter for earnings management? Evidence from private family firms. *Journal of Applied Accounting Research*, *24*(4), 635-654. https://doi.org/10.1108/JAAR-02-2022-0040

Weng, R., Chen, S. & Chen, Q. (2025). Financial arrangement of female successors: A perspective from earnings management during successions in Chinese family firms. *Eurasian Business Review*, *15*, 303-330. https://doi.org/10.1007/s40821-025-00290-1

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. https://doi.org/10.2308/accr-10196

Zellweger, T. M., Kellermanns, F. W., Chrisman, J. J., & Chua, J. H. (2012). Family control and family firm valuation by family CEOs: The importance of intentions for transgenerational control. *Organization Science*, *23*(3), 597-906. https://doi.org/10.1287/orsc.1110.0665

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

DATA AVAILABILITY STATEMENT

The entire dataset supporting the results of this study can be made available upon request to the authors.

GENERATIVE AI DISCLOSURE

The authors declare that generative artificial intelligence was used in the following stages of the production of this manuscript:

- Text refinement: ChatGPT.

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