

It's a family affair: How social identification influences family CEO compensation

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Abstract

Research Question/Issue: This study analyzes the heterogeneity of CEO compensation in family firms. Specifically, we investigate the relationship between a family CEO's social identification with the family firm and the level of her or his compensation.

Research Findings/Insights: Using a sample of S&P 500 family firms between 2006 and 2014, we find that levels of social identification among family CEOs explain the heterogeneous patterns of CEO compensation among family firms. Our results show that the level of social identification varies among family CEOs.

Theoretical/Academic Implications: Our findings indicate that differences in social identification among individual family executives are an important factor in CEO compensation in family firms. This factor has been overlooked in the literature, which has instead focused on the explanatory power of faultlines between family versus non-family firms or family versus non-family executives in family firms.

Practitioner/Policy Implications: Practitioners may value our finding that socio-psychological dynamics influence strategic decision-making in family firms, such as setting the compensation of the family CEO. In particular, practitioners should be aware of each family CEO's level of identification and should not assume that all family members equally socially identify with the family firm.

KEYWORDS

corporate governance, CEO compensation, family CEO, family firms, social identification

1 | INTRODUCTION

Family-controlled businesses are an important driver of economic growth and societal and technological progress (Anderson & Reeb, 2003; Duran et al., 2016; Le Breton-Miller & Miller, 2018; Villalonga & Amit, 2006). Family control and ownership are common in firms of all sizes worldwide (De Massis et al., 2018; Morck et al., 2005). As Villalonga and Amit (2020, p. 241) stated, family firms

“matter very much, and to very many people.” Hence, the distinctive features of family firms have long been of interest to researchers. For example, research has found that family firms differ significantly from other (non-family) firms, such as in their value (e.g., Anderson & Reeb, 2003); investment horizons (e.g., Bertrand & Schoar, 2006); management, governance, and control practices (e.g., Villalonga & Amit, 2006); and innovation strategies (e.g., Chrisman & Patel, 2012). Such differences help to explain how family firms function differently

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from firms of other types. Moreover, studying the distinctive features of family firms is crucial to understand how such firms can make and sustain their important contributions (Villalonga & Amit, 2020).

One area in which research has begun to investigate such specific characteristics of family firms is CEO compensation (e.g., Barontini & Bozzi, 2018; Combs et al., 2010; Croci et al., 2012; Gomez-Mejia et al., 2003; Jaskiewicz et al., 2017). CEO compensation is an important topic of research on family firms because it provides insights into the incentives and behaviors of individual CEOs, who act as the key decision-makers in family firms (Cannella et al., 2015; Combs et al., 2010). Studies in this area have revealed differences in compensation between family and non-family firms (e.g., Croci et al., 2012; De Cesari et al., 2016) and between family and non-family executives in family firms (e.g., Barontini & Bozzi, 2018; Block, 2011; Cieślak, 2018; Gomez-Mejia et al., 2003; Michiels et al., 2013).

Nevertheless, the heterogeneity of CEO compensation among family executives remains difficult to explain, as most studies have failed to consider the effects of family CEOs' individual characteristics, cognitions, and emotions. Instead, they have focused on how CEO compensation differs along the faultlines of the groups into which CEOs fall, such as CEOs in family versus non-family firms (e.g., De Cesari et al., 2016), family versus non-family CEOs in family firms (e.g., Gomez-Mejia et al., 2003), and family CEOs who serve with other family representatives versus lone family member CEOs (e.g., Combs et al., 2010). This has created a research gap regarding the role and effects of CEO compensation in family firms. Although much is known about the compensation-related behavior of certain groups of CEOs, little is known about individual CEOs in this context. Recent research emphasizing cognitive and behavioral differences between CEOs who seemingly fall into the same group (e.g., Cannella et al., 2015; Miller et al., 2011) has also stressed the need to fill this research gap.

In our study, therefore, we seek to extend knowledge of the heterogeneity of family CEO (i.e., CEOs who are members of the controlling family) compensation using insights from social identification theory (Ashforth & Mael, 1989; Hogg et al., 1995; Tajfel, 1982). Specifically, we posit that family executives' identification with their family firms can vary between family CEOs and that this variation has implications for a CEO's expectations and bargaining efforts regarding the level of her or his compensation. Several studies have demonstrated the importance of social identification to family firms in general (e.g., Akhter et al., 2016; Cannella et al., 2015; De Massis, 2012; Le Breton-Miller & Miller, 2014; Shepherd & Haynie, 2009). We build on these insights by showing that the identification of family members with the family firm significantly influences numerous processes and decisions in family firms (Deephouse & Jaskiewicz, 2013), such as CEO compensation. To examine the relationship between identification and compensation, we also build on studies outside the literature on family firms. For example, we draw on Boivie et al. (2011), who showed that in general, CEOs' strong identification with their firms reduces their tendency to engage in activities that incur agency costs (e.g., decoupling firm performance from CEO pay or perquisites) and harm the firms they lead.

Our approach to studying CEO compensation in family firms adds to knowledge in two ways. First, we highlight the important role played by CEOs' identification with their family firms in CEO compensation. We thereby meet a need identified by Le Breton-Miller and Miller (2014, p. 671), who suggested that the "domain of family business may benefit greatly from researching the origins of social identities in family firms and examining their consequences for personal motivation and OB [organizational behavior]." In the context of CEO compensation in particular, studies of family firms have focused more on economic theories, such as agency theory and the notion of optimal contracting (e.g., Barontini & Bozzi, 2018; Combs et al., 2010; Croci et al., 2012; Gomez-Mejia et al., 2003), than on social theories. This is surprising, because family firms have important social features. Numerous studies have described the "family effect" in strategic decision-making processes, whereby the characteristics, history, interactions, and behavioral patterns of the controlling family—through ownership structure, management, and governance—influence the decision-making and other outcomes of family firms (Dyer, 2006; Klein et al., 2005).

Second, we show that CEOs' social identification in family firms can vary, even within the subset of CEOs who are family members. This finding not only sheds light on the heterogeneity of previous results of family firm compensation research but also demonstrates the need to consider differences between family executives and, more generally, family firms. In this regard, we fill a gap identified by Berrone, Cruz, and Gomez-Mejia (2012, p. 270), who suggested that "partly because of measurement challenges, most current research treats family firms as homogeneous," especially with regard to their "familiness," a concept that emphasizes familial social ties and cohesion and family members' emotions (Gomez-Mejia et al., 2011; Zellweger et al., 2013).

The rest of this paper proceeds as follows. First, we review the literature on family firms and CEO compensation in family firms. Following this, we develop our hypotheses regarding the variation in the social identification of family CEOs with their family firms and how this influences the CEOs' level of compensation. In our methods section, we explain how we tested our predictions using a random-effects model with a sample of 459 firm-year observations from 79 family firms listed in the S&P 500 during 2006–2014. We conclude the paper by discussing our findings and providing suggestions for future research.

2 | LITERATURE REVIEW

2.1 | Family firms

A firm is considered a family firm if the controlling family "owns a minimum of 5 percent of the shares and at least one family member (a person related by blood or by marriage to the owning family) serves as a member of the TMT" (Chrisman & Patel, 2012, p. 983f.). Research on family firms has suggested that family-owned and family-controlled firms differ from non-family firms in several respects, such as their

value (e.g., Anderson & Reeb, 2003); investment horizons (e.g., Bertrand & Schoar, 2006); management, governance, and control practices (e.g., Villalonga & Amit, 2006); and innovation strategies (e.g., Chrisman & Patel, 2012). To explain these differences, scholars have often referred to the concept of socioemotional wealth (SEW) (Berrone et al., 2012). In this context, SEW encompasses the non-economic utility that a family gains from firm ownership, such as the preservation of the family dynasty, conservation of family values, and ability to exercise authority (Gomez-Mejia et al., 2011; Gómez-Mejía et al., 2007; Leitterstorff & Rau, 2014). According to the concept of SEW, family firms pursue both economic and non-economic goals (e.g., Chrisman et al., 2004; Chrisman et al., 2012). However, they are willing to sacrifice economic profits to protect their non-economic utility (Chrisman & Patel, 2012).

The concept of SEW also links family firms and social identification. Identifying five major dimensions of SEW, Berrone et al. (2012) emphasized the importance of family members' identification with the family firm to their affective endowment regarding the family business. Family members' identification with the family firm constitutes the intertwining of the family and the business, resulting in a unique family and firm identity (Berrone et al., 2012; Dyer & Whetten, 2006). Therefore, social identification theory is relevant to family firms. This theoretical lens suggests that individuals construe their self-concept based on the social groups ("in-groups") to which they perceive themselves to belong (e.g., Hogg et al., 1995; Tajfel, 1982) and define themselves according to the attributes that are believed to define the social group (Dutton et al., 1994). Identification means experiencing at a personal level the group's status, success, or failure, because the group has become part of one's self-definition (Mael & Ashforth, 1992). Identification with a social group requires individuals to be aware of their group membership, to value it, and to be emotionally invested in it (Tajfel, 1982). Furthermore, identification impacts individuals' behaviors and actions, leading them to act in favor of the in-group (Hogg et al., 1995; Tajfel, 1982; Tajfel et al., 1971).

Research on family firms has suggested that family members' identification with the firm is an essential characteristic of a family firm (Deephouse & Jaskiewicz, 2013). A family firm plays an important role in the life of family members, and running a family business fulfills family members' need for identification (Gómez-Mejía et al., 2007). The firm is part of the family identity, increasing family members' awareness and valuation of their in-group membership and their emotional investment in the family firm (Deephouse & Jaskiewicz, 2013; Minichilli et al., 2010; Sharma & Irving, 2005).

2.2 | Executive compensation in family firms

Studies have uncovered several important mechanisms of executive compensation in family firms. For example, research has found that on average, CEOs of family firms receive lower pay than CEOs of non-family firms do (e.g., Croci et al., 2012; De Cesari et al., 2016). Other studies, albeit in different contexts, have identified a nonsignificant effect (Combs et al., 2010) or even a positive effect (Barontini &

Bozzi, 2018; Gallego & Larrain, 2012) of family ownership on CEO compensation. Some research has suggested that CEOs of family firms who are also members of the family receive lower compensation than those who are externally hired professionals (Barontini & Bozzi, 2018; Block, 2011; Cieślak, 2018; Gomez-Mejia et al., 2003; Michiels et al., 2013; Young & Tsai, 2008). However, Combs et al. (2010) showed that this effect only held if the CEO was a family member serving in a firm together with other family representatives. Lone family member CEOs received both more cash and more stock option compensation than professional (non-family) CEOs did. Jaskiewicz et al. (2017) investigated the generational effects of ownership in family firms and showed that founder-ownership had a negative effect on the compensation of externally hired professional CEOs, whereas family (descendant) ownership had a positive effect. Similarly, Barontini and Bozzi (2018) found that in firms owned by descendants, the presence of multiple family members in the firm reduced family CEO compensation, whereas the presence of the founder increased it.

Most studies of executive compensation in family firms have relied on market-based theories, such as agency theory and the notion of optimal contracting (Barontini & Bozzi, 2018; Cheung & Chan, 2004; Cieślak, 2018; Combs et al., 2010; Croci et al., 2012; De Cesari et al., 2016; Gomez-Mejia et al., 2003; Jaskiewicz et al., 2017; Michiels et al., 2013). For example, Combs et al. (2010) suggested that in family firms, members of the family exercise strategic control over CEOs' actions, thereby alleviating the agency problem between owners and CEOs and reducing the likelihood of rent expropriation by family CEOs. The authors further argued that if the CEO is the only family member involved in the firm's management or board, this strategic control by other family members is absent; therefore, lone family member CEOs have an incentive as well as the opportunity to increase their personal compensation. Similarly, Gomez-Mejia et al. (2003) used agency theory to suggest that in family-controlled firms, risk-averse agents (CEOs) will trade higher job security for lower earnings if they are related to the principals (family owners). Croci et al. (2012) and others found evidence of an optimal contracting perspective. These studies suggested that controlling families do not use CEO compensation to expropriate wealth from minority shareholders and that CEO compensation is therefore the product of arm's length relationships between boards—which represent the shareholders' interests—and CEOs' interests (Core & Larcker, 2002; Gomez-Mejia & Wiseman, 1997).

Few studies of CEO compensation in family firms have integrated socio-psychological arguments into their accounts of the determinants of CEO pay (Croci et al., 2012; Gallego & Larrain, 2012; Gomez-Mejia et al., 2003; Tang, 2014), and none have explored such arguments in depth. Gomez-Mejia et al. (2003), for example, attributed a steward role to family CEOs, suggesting that they are more likely to be emotionally attached to their firms than their professional counterparts are. Croci et al. (2012) and Gallego and Larrain (2012) contrasted their optimal contracting arguments with arguments based on managerial power theory to argue that when a family member serves as CEO, the family can

opportunistically set the CEO's compensation level to benefit the family CEO and expropriate wealth from other shareholders. However, their results did not support this perspective.

3 | HYPOTHESES

Research has suggested that family members identify more strongly with their family firms than non-family members identify with either family or non-family firms (e.g., Akhter et al., 2016; De Massis, 2012; Deephouse & Jaskiewicz, 2013). As Deephouse and Jaskiewicz (2013) explained, family members strongly fulfill the three criteria for social identification with a group: awareness, valuation, and emotional investment (Tajfel, 1982). First, family members are highly aware of their membership in a family firm because the firm is a part of the family's history and family members have been involved in the firm in various ways since its founding. Even if a family member is not actively involved in the management of a family firm, she or he regularly hears about the firm and encounters firm-related identity cues. As a result, the firm becomes an integral part of that individual's identity (Deephouse & Jaskiewicz, 2013; Dyer & Whetten, 2006; Zellweger et al., 2011). Second, family members are strongly inclined to value their membership in a family firm because the firm consistently provides them with financial wealth and SEW (Villalonga & Amit, 2006). In contrast, non-family members cannot claim the benefits of SEW, such as secure employment or the benefits of transgenerational control, as a birthright (Deephouse & Jaskiewicz, 2013). Finally, family members are likely to be more emotionally invested in family firms than non-family members are in either family or non-family firms. Such emotional investment is reflected in family members' intrinsic desire to be recognized for their various contributions to their family firms (Berrone et al., 2010). Emotions such as loyalty and pride also strengthen family members' dedication to family firms (Klein et al., 2005). Therefore, family members assign greater affective significance to their firm membership (Ashforth et al., 2008; Tajfel, 1982). Studies have shown that this affective value is a central component of the SEW that family members derive from family firms (Astrachan & Jaskiewicz, 2008; Gomez-Mejia et al., 2011; Gómez-Mejía et al., 2007).

Numerous studies have investigated these mechanisms of social identification, specifically for family CEOs (e.g., Beehr et al., 1997; Cannella et al., 2015; Gomez-Mejia et al., 2003). Overall, these studies have concluded that family CEOs, like other family members of family firms, are significantly influenced by their role as family members and the mechanisms of social identification associated with being family members. Moreover, the emotional attachment and affective value that family CEOs assign to their special role impact their behavior as leaders of their firms. For example, research has suggested that because of family CEOs' social identification with their firms, they act as the firms' stewards (e.g., Beehr et al., 1997). In other words, they make pro-organizational decisions without being induced to do so via compensation (Davis et al., 1997). Gomez-Mejia et al. (2003) found a similar effect, explaining that family CEOs are more likely to be

emotionally involved in their work than are professional CEOs and thus view their role in the firm and their agency contract as less calculative and utility-oriented.

Research on family CEOs, however, has also suggested that family CEOs may differ in the extent to which they are subject to the above-described mechanisms of social identification with their family firms. Similarly, empirical studies have shown that the degree to which family CEOs identify with their firms varies. Miller et al. (2011), for example, showed that lone founders, compared with family-embedded CEOs, are influenced by a wider set of market-oriented factors than are family stakeholders. Consequently, they are more likely to embrace an entrepreneurial identity and logic and pursue strategies of growth than to assume the role identity and logic of family nurturers and pursue strategies of conservation. Cannella et al. (2015) supported this idea of differences in social identification among family CEOs, highlighting that lone founders' identification tends to be highly individualistic, as they view the company as an extension of the founder (Levinson, 1971; Wasserman, 2006). In contrast, the identity of a family firm has an inherent familial component, in that the company reflects the family.

We suggest that from the perspective of social identification, when family CEOs identify strongly with their family firms, they are motivated to shield the part of their self-concept that is based on membership in the family firm (Hogg et al., 1995; Tajfel, 1982). Because of the overlap between a family CEO's self-definition and the attributes that she or he believes to define the family firm (Dutton et al., 1994), the family CEO experiences the family firm's status, successes, and failures on a personal level (Mael & Ashforth, 1992). Consequentially, we argue that family CEOs who identify strongly with their firms are likely to act in favor of this "in-group" (Hogg et al., 1995; Tajfel, 1982; Billig, Bundy, & Flament, 1971) and therefore behave in a way that protects the family firms. Therefore, depending on the degree of identification, they differ in their bargaining efforts regarding the level of compensation and compensation discount that they are willing to accept.¹ We argue that family CEOs who identify more strongly with their family firms feel more committed to non-economic SEW-related family goals and strive less to enlarge their personal status and prestige by negotiating higher compensation.

Hypothesis 1. The compensation of family CEOs is lower if they identify more strongly with their family firms.

We substantiate the above-described effect by showing that the higher the controlling family's ownership of the family firm, the lower the compensation for family CEOs who identify strongly with the family firm will be. This hypothesis builds on research examining clarifying the relevance of family ownership to family firm behavior and performance (e.g., Anderson & Reeb, 2003; Villalonga & Amit, 2006, 2010, 2020). For example, Villalonga and Amit (2020) argued that family shareholders and non-family shareholders differ in their preferences for exercising control. Family shareholders place a particularly high value on control because they

are emotionally attached to the firm and want to preserve it as an important part of the family identity and legacy. Non-family shareholders, such as institutional investors, typically have shorter time horizons and are more interested in cash flow and financial performance than in control, which they are often unable to exercise with their small equity stakes. The family, therefore, uses its ownership to maximize its private benefits (i.e., SEW), which may expropriate non-family investors who pursue other objectives (Villalonga & Amit, 2010, 2020).

Based on the literature (e.g., Chrisman et al., 2012), we understand family ownership as an indicator of how strongly strategic decision-making in family firms is guided by the pursuit of non-economic goals to maximize SEW. We therefore argue that in family firms with higher family ownership, family CEOs who identify strongly with the family firm tend to accept lower compensation. In such a family firm, non-economic goals (i.e., preserving the family identity) strongly influence strategic decision-making, in line with the family shareholders' and the family CEO's strong commitment to the family's SEW. Furthermore, when family ownership is high, non-family investors are less likely to have equity stakes large enough to influence decision-making processes. We therefore argue that a higher percentage of family ownership makes family CEOs more amenable to the social norms and values associated with the family identity, including the SEW-related logic concerning lower CEO compensation. Consequently, we posit that family ownership augments the negative relationship between a family CEO's social identification and her or his level of compensation.

Hypothesis 2. The controlling family's percentage of share ownership augments the negative influence of family CEOs' social identification on their compensation.

4 | METHODS AND RESULTS

4.1 | Sample

Our sample consisted of 459 firm-year observations from 79 family firms listed in the S&P 500 during 2006–2014.² The sampled firms comprised family firms that were listed in the S&P 500 in any year between 2006 and 2014; that had compensation, ownership, board composition, and financial data for the study period; and whose primary industry was not financial services, utilities, or government (Anderson & Reeb, 2003). For firms that met these criteria, we included available observations for all years between 2006 and 2014, even if the firm was not in the S&P 500 in a particular year (Villalonga & Amit, 2006).

We collected data from numerous sources, as follows. To identify family firms, we applied the definition formulated by Chrisman and Patel (2012), who set both family ownership and family management as necessary conditions and required that the controlling family “owns a minimum of 5 percent of the shares and at least one family member (a person related by blood or by marriage to the owning family) serves

as a member of the TMT” (p. 983f.). Data on family ownership and family management were collected from corporate proxy statements and 10-K filings.

Compensation data were collected from ExecuComp. Information on the controlling family's name and the CEO's relationship with the family was gathered by examining company histories on Hoover's database and websites and from SEC filings. Annual reports were gathered from Mergent Archives and company websites. From these reports, we extracted the number of references made to the family and the number of times the family appeared in pictures. Furthermore, we gathered information on the control variables via Compustat, Risk Metrics, CRSP, and Beta Suite.

4.2 | Variables and measures

4.2.1 | CEO total compensation

Our dependent variable, *CEO total compensation*, was measured as salary + bonus + non-equity incentive plan compensation + grant-date fair value stock awards + grant-date fair value of option awards + deferred compensation + other compensation using ExecuComp's TOTAL_SEC variable. To reduce skewness, we winsorized the data at the 1% level and used the natural log of the total compensation value (Pathak et al., 2014).³

4.2.2 | Family CEO

Our first independent variable, *family CEO*, was a dummy variable that equaled 1 if a firm's CEO was a member of the controlling family and 0 otherwise.

4.2.3 | Social identification

We used three proxy indicators to operationalize our second independent variable, the *social identification* of the family CEO. First, the indicator *shared name* was a dummy variable that equaled 1 if the name of the family firm contained the name of the controlling family (e.g., the Ford family in Ford Motor Company) or part of the name of the controlling family (e.g., the Walton family in Walmart) (Deephouse & Jaskiewicz, 2013; Dyer & Whetten, 2006), and 0 otherwise. Including the name of the controlling family in the firm name signals a strong overlap between the family identity and the organizational identity of the business (Zellweger et al., 2013). The perpetuation of family emblems, such as the family name, is an integral part of what a family business identity represents (Gómez-Mejía et al., 2007; Littunen, 2003). Empirical evidence has suggested that when the family name is part of the firm name, family members, including the CEO, identify more strongly with the family firm and are more motivated to make decisions favorable to the firm, often to protect the family's—and their own—reputation

(e.g., Deephouse & Jaskiewicz, 2013; Kammerlander & Ganter, 2015). Following the literature, we considered the family name's being part of the firm name as a symbolic characteristic that heightens the CEO's awareness of family responsibilities and non-financial SEW-related family goals and her or his identification with the firm (Deephouse & Jaskiewicz, 2013).

Second, we used the proxy variable *name ratio* as an indicator to capture the family CEO's *social identification*. *Name ratio* denotes the number of references to the company founder, other individual family members, the controlling family as a whole (e.g., the Walton family), or family relations (e.g., grandfather, father, parents, and son) in the annual report, divided by the total number of words (in thousands) in the annual report to account for differences in report length (e.g., Payne et al., 2011). References in captions of photographs were counted only if the captions told meaningful stories about the people depicted, for instance, if a caption quoted the depicted person, characterized the person, or gave a context to what the person was pictured doing. References to the family firm in the case of a shared name were not counted.

Annual reports are an appropriate source for understanding the CEO's identification with the family business, as they signal how prominently the CEO wants to feature the family in the context of the firm (Zellweger et al., 2013). The controlling family's prominence in annual reports can be interpreted as the extent to which the CEO is aware of her or his in-group membership of the family business and therefore how strongly she or he identifies with the family firm. Research has shown that language usage in organizational narratives, such as annual reports, letters to shareholders, and mission statements, clarifies organizational phenomena such as firm orientation (e.g., Fiss & Zajac, 2006); conveys organizational assets (e.g., Payne et al., 2011) or identity (e.g., Moss et al., 2011); and even offers insights into individual CEOs' psychological attributes (e.g., Chatterjee & Hambrick, 2007; Gamache et al., 2015). One could argue that annual reports are not single-handedly compiled by CEOs and that investor or corporate communications specialists influence the language used. However, we agree with Chatterjee and Hambrick (2007) that CEOs have a keen interest in how they and their firms are portrayed in annual reports. Because there are no universal or standard design parameters for how often controlling families are mentioned in annual reports, we argue that this is ultimately the CEO's choice.

As a third indicator for *social identification*, we used the proxy variable *picture appearance* to count the number of photographs in the annual report that depict the founder, any other individual family member, or the controlling family as a whole. Research has shown that images, such as those of the corporate elite, are part of the visual rhetoric (or paratext) of annual reports (Davison, 2011, 2014). Photographs in annual reports are often deliberately chosen and are powerful tools for communicating (implicit) messages about aspects of the organization, such as diversity (Bernardi et al., 2009), gender balance (Benschop & Meihuizen, 2002), and CEO attributes (Chatterjee & Hambrick, 2007). As for *name ratio*, we argue that the CEO chooses how prominently the controlling family is portrayed in

pictures in the annual report, and this choice can therefore be interpreted as a sign of the CEO's level of social identification with the family firm. Pictures depicting several family members in which the individual people were not distinguished through identification in the captions or elsewhere in the text were counted as 1. Because *picture appearance* has high level of skewness (7.05) and kurtosis (60.25), we used a dummy variable that equaled 1 if there was at least one photograph of the founder, any other individual family member, or the controlling family as a whole in the annual report, and equaled 0 otherwise.

For both *name ratio* and *picture appearance*, we explicitly considered the purpose of the reference or visualization (e.g., discussing some aspect of the controlling family or creating a certain image of the family). Mentions of names and pictures in mandatory sections of the report, such as "board of directors overview," "CEO position," and "related party transactions," were excluded from the count. Because both *name ratio* and *picture appearance* require some interpretation (i.e., the meaning and purpose of the reference), we created a detailed coding manual. Each occurrence was classified independently by three coders (including one of the authors), and inconsistencies in classifications (nine of 459 family firm-year observations for *name ratio* and seven of 459 for *picture appearance*) were discussed until a consensus was reached.

Although our study ties in closely with recent work that has measured CEOs' psychological states through appropriate but unobtrusive and measurable proxies (e.g., Chatterjee & Hambrick, 2007; Gamache et al., 2015), *shared name*, *name ratio*, and *picture appearance* were proxy variables that did not directly measure the family CEOs' identification with the family firm. A direct measure of such psychological states cannot be implemented in a large-scale archival study such as ours.

4.2.4 | Family ownership

Our third independent variable was the proportion of *family ownership*, which we measure as the proportion of voting shares held by the controlling family. We used this variable to test Hypothesis 2.

4.2.5 | Control variables

To account for other factors that may influence CEO compensation, especially in family firms, we included several control variables recommended in the literature. First, we included several firm characteristics to acknowledge their potential influence on CEO compensation (e.g., Combs et al., 2010; Devers et al., 2007). The first was the Herfindahl-Hirschmann Index, which measures a firm's institutional *ownership concentration* and recognizes that as ownership concentration increases, owners might exercise their governance role more strongly (e.g., Connelly et al., 2010). *Ownership concentration* equaled the sum of the squared percentage of ownership of each institutional investor holding at least 1%. We included *ROA* and *Tobin's q* (both

adjusted for the industry average based on the two-level standard industrial classification [SIC] code) to capture any effects of firm performance (e.g., Combs et al., 2010) and corporate value (e.g., Villalonga & Amit, 2006) on CEO compensation. Both variables were also included as 1-year lagged variables ($t - 1$) to acknowledge any delayed effects in executive compensation-setting (e.g., Gupta & Wowak, 2017). We included *firm size* (measured as the logarithm of the total assets) to capture any influence of job complexity on CEO compensation (e.g., Devers et al., 2007).

Because the influence that a family can exercise on CEO compensation varies with family voice and representation, we also controlled for the extent of family involvement in governance (measured as the proportion of *family board members*; e.g., Combs et al., 2010). Additionally, we included a dummy variable, *lone-founder CEO*, that equaled 1 if the CEO was the founder of the firm and the only family member active in management or on the board, meaning that no other family members exercised strategic control over CEO compensation (e.g., He, 2008). We also controlled for dividend payout using *dividends per share*, because recent research has uncovered a link between a firm's dividend policy and CEO compensation (Chen et al., 2019). Furthermore, we controlled for the influence of firm risk on CEO pay-performance sensitivity (e.g., Combs et al., 2010). To this end, we calculated a firm's *market risk (beta)* and *idiosyncratic risk* by estimating a market model in which the firm's monthly returns over the past 5 years were regressed on the S&P 500 monthly returns and by calculating the standard error for that model (Villalonga & Amit, 2006).

Next, we controlled for various characteristics of the CEO by including *CEO duality* (a dummy variable that equaled 1 if the CEO also held the position of chairman of the board) and *CEO ownership* (percentage of shares, including options, held by the CEO). Studies have suggested that CEO compensation increases under CEO duality but decreases with rising CEO ownership (Core et al., 1999). Additionally, we included *CEO tenure* (e.g., Combs et al., 2010), *age* (e.g., Gupta & Wowak, 2017), and *gender* (Hill et al., 2015). We also controlled for CEO credentials by considering prestigious working credentials (*CEO elite employment*) and prestigious education credentials (*CEO elite education*) (Chen, 2015). A CEO was regarded as possessing prestigious working credentials if she or he had been employed at the level of vice president or higher by a prominent firm listed in the S&P 100 Index. A CEO was coded as possessing elite education credentials if she or he had received an undergraduate or graduate degree from an elite institution, as identified by Finkelstein (1992). We also controlled for CEO's *past year total compensation* ($t - 1$) because we expected firms to have compensation policies in place that would result in correlation between annual compensation levels (e.g., Chen, 2015). Because this correlation could be disturbed by a change in the CEO, we used a dummy variable (*change in CEO*) that equaled 1 if the CEO had changed over the course of the year, and 0 otherwise.

Finally, all of the calculations included year and industry (one-digit SIC code) dummies to capture time- and industry-related effects.

4.3 | Descriptive statistics

Means, standard deviations, and correlation coefficients for the study variables are reported in Table 1. The variance inflation factors (VIFs) and condition indices were well below the critical values of 5 and 30, respectively, suggesting that multicollinearity was not an issue in our data. All the values of metric independent and control variables were standardized.

4.4 | Analyses and results

Table 2 shows the results of the regression analyses obtained using a random effects panel design (Certo et al., 2017; Certo & Semadeni, 2006). We could not use a fixed-effects model, which the Hausman test indicated to be appropriate, because some of our independent and control variables (e.g., *shared name*, *CEO gender*, *CEO elite education*, *CEO elite employment*) did not vary within the groups. To account for potential autocorrelation problems, data were clustered, and robust standard errors were calculated using the Huber-White sandwich estimator (White, 1980).

Model 1 included only the control variables. Model 2 added the independent variable *family CEO*, and Model 3 added the remaining independent variables. Models 4–6 consecutively included the interaction terms for each operationalization of Hypothesis 1. Model 7 was the full model. In Model 3, we found a marginally significant positive effect for our independent variable *name ratio* ($p < 0.1$) and a significant positive effect for *family ownership*. In Models 4–6, we found significant interaction effects between *family CEO* and the variables *name ratio* and *picture appearance*. We did not find a significant effect for the interaction between *family CEO* and *shared name*. Therefore, Hypothesis 1 was supported for two of the operationalizations of *social identification*. However, we did not find significant results for family CEOs when the name of the family firm contained the name of the controlling family.⁴

Calculations of marginal effects further supported Hypothesis 1. As the frequency at which the family was named in the annual report increased, the total compensation of family CEOs decreased (dy/dx family CEOs = -0.07 , $p < 0.05$). In contrast, for non-family CEOs, an increase in the number of mentions of the family in the annual report led to a rise in total compensation (dy/dx non-family CEOs = 0.04 , $p < 0.1$). The slopes for the foregoing two relationships differed significantly ($\chi^2 = 6.47$, $p < 0.05$). Using the mean value of total CEO compensation as the basis, the marginal effect translated into an average reduction in family CEO compensation of U.S.\$794,224.20 for each additional mention of the family in the annual report (relative to report length). This reduction ranged from U.S.\$33,109.79 to U.S.\$3,495,300.90 at minimum to maximum values of total CEO compensation, respectively. These marginal effects also supported Hypothesis 1 with regard to the family's appearances in pictures in the annual report. With one or more such appearances, the total compensation of family CEOs decreased (dy/dx family CEOs = -0.21 , $p < 0.1$). We did not find significant results for non-family CEOs (dy/dx non-family

TABLE 1 Descriptive statistics and correlation table

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. CEO total compensation	11,346.06	11,285.64	0.81***										
2. CEO total compensation _(t-1)	10,785.12	10,734.52	-0.06	-0.01									
3. Change in CEO	0.08	0.28	-0.22***	-0.24***	-0.14***								
4. CEO tenure	19.40	12.00	0.14***	0.17***	-0.13***	0.35***							
5. CEO age	56.27	9.02	-0.05	-0.05	-0.05	0.05	0.01						
6. CEO gender	0.45	0.50	0.14***	0.15***	-0.06	0.06	0.16***	-0.07					
7. CEO elite education	0.18	0.39	0.25***	0.27***	0.06	-0.19***	0.11**	-0.13***	0.19***				
8. CEO elite employment	4.58	6.81	-0.25***	-0.27***	-0.15***	0.27***	0.25***	0.10**	0.07	-0.07			
9. CEO ownership	0.48	0.50	-0.09*	-0.12***	-0.17***	0.20***	0.24***	0.10**	-0.07	-0.10**	0.29***		
10. CEO duality	0.05	0.04	-0.22***	-0.24***	0.06	0.13***	0.07	-0.02	-0.06	-0.11**	-0.01	-0.03	
11. Ownership concentration	0.00	0.07	0.03	0.02	0.02	0.05	-0.03	0.02	-0.04	0.11**	-0.06	0.06	0.08*
12. ROA	0.16	1.10	-0.08	-0.12***	-0.04	-0.01	-0.19***	0.05	0.00	-0.06	0.11**	0.05	0.06
13. Tobin's q	25,924.94	60,145.88	0.33***	0.37***	0.02	0.06	0.27***	0.00	0.31***	0.48***	0.04	-0.01	-0.15***
14. Firm size (total assets)	0.00	0.07	-0.01	0.01	0.03	0.06	-0.05	0.00	-0.08*	0.13***	-0.05	0.07	0.07
15. ROA _(t-1)	0.17	1.10	-0.15***	-0.18***	-0.04	-0.05	-0.24***	0.03	-0.02	-0.05	0.16***	0.04	0.06
16. Tobin's q _(t-1)	0.17	0.08	-0.14***	-0.15***	-0.00	0.22***	0.18***	-0.08*	-0.08*	-0.20***	-0.10**	0.01	0.11**
17. Family board members	0.14	0.34	-0.13***	-0.15***	-0.07	0.01	-0.20***	0.06	-0.14***	0.04	0.49***	0.23***	-0.05
18. Lone-founder CEO	0.73	1.29	0.05	0.04	0.05	0.04	0.20***	-0.01	0.07	-0.03	-0.06	0.06	0.44***
19. Dividend payout	1.23	0.58	0.01	-0.03	-0.03	-0.06	0.07	0.07	-0.06	-0.04	0.11**	0.03	0.05
20. Market risk (beta)	0.08	0.03	-0.15***	-0.19***	-0.08	-0.10**	-0.14***	0.08*	-0.05	-0.14***	0.11**	0.02	0.08*
21. Idiosyncratic risk	0.44	0.50	-0.12**	-0.13***	-0.16***	0.39***	0.26***	0.15***	0.13***	-0.12***	0.69***	0.45***	0.02
22. Family CEO	0.35	0.48	0.12**	0.13***	0.07	-0.02	0.09*	0.12***	-0.03	-0.01	-0.14***	0.04	-0.01
23. Shared name	0.06	0.21	-0.01	-0.04	-0.04	0.04	-0.07	0.04	-0.04	-0.05	-0.08*	0.08	-0.03
24. Name ratio	0.08	0.28	-0.01	0.00	-0.01	0.05	-0.03	0.05	-0.04	-0.04	-0.08*	0.12***	-0.01
25. Picture appearance	0.40	0.34	0.09*	0.07	-0.02	0.01	0.10**	-0.05	-0.17***	-0.13***	-0.07	-0.09*	0.12***
26. Family ownership													

(Continues)

TABLE 1 (Continued)

Variables	12	13	14	15	16	17	18	19	20	21
1. CEO total compensation										
2. CEO total compensation _(t-1)										
3. Change in CEO										
4. CEO tenure										
5. CEO age										
6. CEO gender										
7. CEO elite education										
8. CEO elite employment										
9. CEO ownership										
10. CEO duality										
11. Ownership concentration										
12. ROA										
13. Tobin's q	0.39***									
14. Firm size (total assets)	0.01	-0.21***								
15. ROA _(t-1)	0.84***	0.30***	0.04							
16. Tobin's q _(t-1)	0.40***	0.87***	-0.20***	0.36***						
17. Family board members	-0.08*	0.04	-0.29***	-0.12***	-0.01					
18. Lone-founder CEO	-0.11**	0.19***	-0.08*	-0.07	0.25***	-0.29***				
19. Dividend payout	0.21***	0.04	-0.00	0.19***	0.02	0.00	-0.18***			
20. Market risk (beta)	-0.24***	-0.06	-0.15***	-0.25***	-0.03	-0.02	0.18***	-0.00		
21. Idiosyncratic risk	-0.23***	0.16***	-0.35***	-0.25***	0.16***	0.04	0.21***	-0.09**	0.53***	
22. Family CEO	-0.16***	0.07	0.01	-0.17***	0.06	0.03	0.45***	-0.05	0.17***	0.17***
23. Shared name	0.08*	-0.13***	0.03	0.08	-0.13***	0.10***	-0.18***	0.21***	0.10**	0.06
24. Name ratio	0.10**	0.01	-0.02	0.09*	0.02	0.10**	-0.08*	0.04	-0.04	-0.04
25. Picture appearance	0.22***	0.16***	-0.07	0.20***	0.13***	0.23***	-0.07	0.07	-0.09*	-0.09*
26. Family ownership	-0.09**	0.01	-0.15***	-0.13***	-0.01	0.44***	-0.17***	-0.02	0.06	0.17***

Note: n = 459.

*p < 0.10. **p < 0.05. ***p < 0.01.

TABLE 2 Results of random effects regression models

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
DV: CEO total compensation							
CEO total compensation _(t-1)	0.65*** (0.08)	0.65*** (0.08)	0.65*** (0.08)	0.64*** (0.08)	0.64*** (0.08)	0.65*** (0.08)	0.63*** (0.08)
Change in CEO	-0.17 (0.15)	-0.17 (0.15)	-0.16 (0.15)	-0.16 (0.15)	-0.16 (0.15)	-0.15 (0.16)	-0.15 (0.16)
CEO tenure	-0.04 (0.04)	-0.04 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)
CEO age	0.05 (0.05)	0.05 (0.05)	0.05 (0.04)	0.05 (0.05)	0.05 (0.04)	0.05 (0.04)	0.05 (0.04)
CEO gender	-0.19 (0.12)	-0.19 (0.13)	-0.17 (0.14)	-0.17 (0.15)	-0.17 (0.14)	-0.17 (0.14)	-0.17 (0.15)
CEO elite education	0.03 (0.06)	0.04 (0.07)	0.06 (0.07)	0.06 (0.07)	0.06 (0.07)	0.07 (0.07)	0.07 (0.07)
CEO elite employment	-0.04 (0.11)	-0.04 (0.11)	-0.03 (0.10)	-0.03 (0.10)	-0.03 (0.10)	-0.04 (0.10)	-0.04 (0.11)
CEO ownership	-0.05 (0.05)	-0.05 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.08 (0.07)	-0.08 (0.07)
CEO duality	0.00 (0.08)	0.01 (0.07)	0.01 (0.07)	0.01 (0.07)	0.00 (0.07)	0.01 (0.07)	0.00 (0.07)
Ownership concentration	-0.09*** (0.03)	-0.09*** (0.03)	-0.10*** (0.04)	-0.10*** (0.04)	-0.11*** (0.04)	-0.10*** (0.04)	-0.10*** (0.04)
ROA	0.11 (0.10)	0.11 (0.10)	0.10 (0.10)	0.10 (0.11)	0.11 (0.10)	0.10 (0.11)	0.10 (0.11)
Tobin's q	0.17** (0.07)	0.17** (0.07)	0.17** (0.07)	0.17** (0.07)	0.16** (0.07)	0.17** (0.07)	0.16** (0.07)
Firm size (total assets)	0.13** (0.06)	0.13** (0.06)	0.13** (0.06)	0.13* (0.07)	0.13* (0.06)	0.12* (0.06)	0.12* (0.07)
ROA _(t-1)	-0.11 (0.10)	-0.11 (0.10)	-0.11 (0.10)	-0.10 (0.10)	-0.10 (0.10)	-0.10 (0.10)	-0.10 (0.10)
Tobin's q _(t-1)	-0.14* (0.08)	-0.14* (0.08)	-0.14* (0.08)	-0.14* (0.08)	-0.14* (0.08)	-0.14* (0.08)	-0.14* (0.08)
Family board members	-0.00 (0.03)	-0.00 (0.03)	-0.03 (0.04)	-0.03 (0.04)	-0.03 (0.04)	-0.04 (0.04)	-0.04 (0.04)
Lone-founder CEO	0.07 (0.16)	0.07 (0.16)	0.06 (0.16)	0.06 (0.15)	0.05 (0.16)	0.05 (0.15)	0.05 (0.15)
Dividend payout	0.03 (0.02)	0.03 (0.02)	0.04 (0.02)	0.04 (0.03)	0.04 (0.02)	0.03 (0.02)	0.03 (0.03)
Market risk (beta)	0.06* (0.03)	0.06* (0.03)	0.06* (0.03)	0.06* (0.03)	0.06* (0.03)	0.06* (0.03)	0.06* (0.03)
Idiosyncratic risk	-0.04 (0.12)	-0.04 (0.13)	-0.06* (0.13)	-0.06* (0.13)	-0.06* (0.13)	-0.06* (0.13)	-0.06* (0.13)
Family CEO		-0.02 (0.13)	0.04 (0.13)	0.04 (0.16)	0.05 (0.13)	0.09 (0.13)	0.07 (0.16)
Shared name			-0.02 (0.07)	-0.02 (0.10)	-0.02 (0.07)	-0.02 (0.07)	-0.03 (0.10)
Name ratio			0.04* (0.02)	0.04** (0.02)	0.05** (0.02)	0.02 (0.02)	0.03 (0.02)
Picture appearance			-0.09 (0.09)	-0.09 (0.09)	-0.08 (0.09)	0.08 (0.13)	0.05 (0.13)
Family ownership			0.08** (0.03)	0.08** (0.03)	0.09*** (0.03)	0.09*** (0.03)	0.09** (0.04)
Family CEO × Shared name				0.00 (0.16)			0.03 (0.16)
Family CEO × Name ratio					-0.11** (0.05)		-0.08* (0.05)
Family CEO × Picture appearance						-0.30* (0.18)	-0.24 (0.18)
Constant	8.90*** (0.15)	8.90*** (0.15)	8.86*** (0.16)	8.86*** (0.16)	8.85*** (0.16)	8.84*** (0.16)	8.85*** (0.16)
N	459	459	459	459	459	459	459
R ²	0.70	0.70	0.70	0.70	0.70	0.70	0.71
Wald	32581***	32542***	38720***	43472***	38219***	42587***	47316***

Note: Heteroskedasticity-robust standard errors in parentheses.

* $p < 0.10$. ** $p < 0.05$. *** $p < 0.01$.

CEOs = 0.14, $p < 0.21$), but the slopes differed significantly for family and non-family CEOs ($\chi^2 = 4.35, p < 0.05$). For the mean CEO compensation, this marginal effect reflects an average decrease of U.S. \$2,383,672.60 (range = U.S.\$99,329.37 to U.S.\$10,485,902.70) in family CEO compensation if the family was pictured at least once in the annual report. The graphical illustration in Figures 1 and 2 further affirm our findings regarding Hypothesis 1.

We tested Hypothesis 2 using three-way interactions between family CEO, each of the three social identification variables (*shared name*, *name ratio*, and *picture appearance*), and family ownership. Table 3 shows the results of these calculations.

In Model 1, reported in Table 3, we first added the two-way interaction between family CEO and family ownership. In Models 2–7, we similarly tested the three-way interactions for each operationalization of our social identification variables. Specifically, we calculated a model with only the three-way interaction term and a second (full) model in which we also included all three two-way interaction terms between the variables included in the three-way interaction. Thus, Models 2 and 3 in Table 3 included the three-way interaction with *shared name*, Models 4 and 5 included *name ratio*, and Models 6 and 7 included *picture appearance*. We only found a significant effect for the three-way interaction between family CEO, family ownership, and name ratio, partially supporting Hypothesis 2.

We investigated this result further by conducting split-sample analysis to calculate the models separately for the subsets of family firms with family ownership above and below the mean. The results for these subsets echoed the findings of the three-way interaction analysis and therefore also lent partial support for Hypothesis 2. Specifically, the interaction term between family CEO and name ratio had

a significant negative effect on total CEO compensation for the subset of family firms with family ownership above the mean ($-0.36, p < 0.001$) but not for that with family ownership below the mean ($-0.03, p < 0.78$).

4.5 | Robustness tests⁵

We tested the robustness of our results in several ways. First, we reran all of our analyses with a sample of not only family firms but all firms listed in the S&P 500 at any time during 2006–2014. This made our results more comparable to prior research on family firms, which has also included non-family firms as the reference group for understanding how phenomena observed among family firms compare with those in the larger population of public firms (e.g., Combs et al., 2010). This robustness test left our results for Hypothesis 1 unchanged. For Hypothesis 2, we found a significant effect only for the three-way interaction between family CEO, family ownership, and picture appearance. This lent partial support for Hypothesis 2 but differed from our original analysis, in which we only found a significant effect for the three-way interaction between family CEO, family ownership, and name ratio.

In addition, we reran all of our models using an alternative version of the dummy variable picture appearance, which we calculated as the square root of picture appearance. This changed the skewness and kurtosis to 4.21 and 22.16, respectively, but the results remained unchanged vis-à-vis our primary calculations.

Overall, our sample did not show any signs of multicollinearity, except for the relationships between ROA and Tobin's q and their

FIGURE 1 Impact of family CEO status and name ratio on CEO total compensation (High and low values of name ratio are calculated as one standard deviation above and below the mean, respectively)

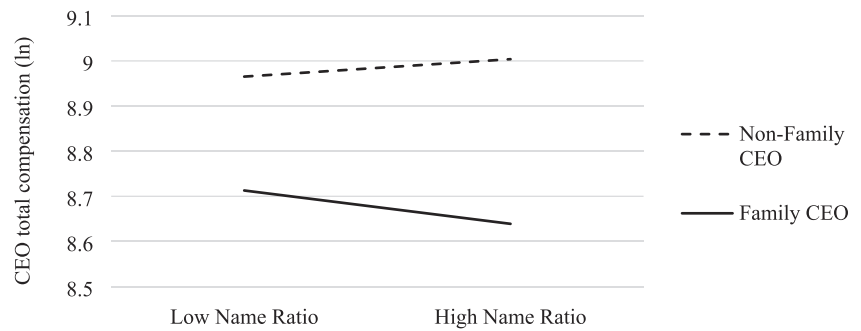


FIGURE 2 Impact of family CEO status and picture appearance on CEO total compensation

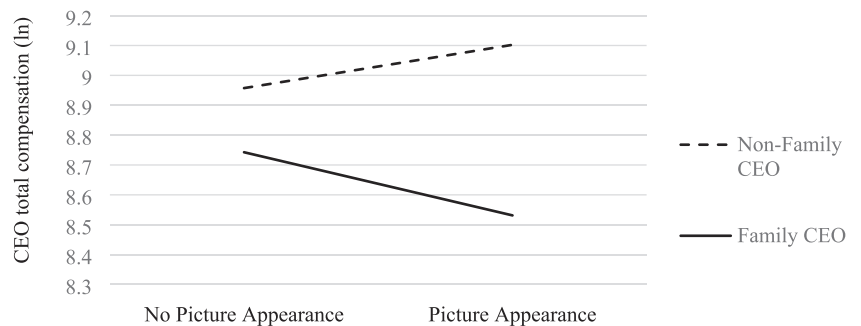


TABLE 3 Results of three-way interaction calculations

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
DV: CEO total compensation							
CEO total compensation _(t-1)	0.64*** (0.08)	0.64*** (0.08)	0.63*** (0.08)	0.64*** (0.08)	0.63*** (0.08)	0.64*** (0.08)	0.63*** (0.08)
Change in CEO	-0.15 (0.16)	-0.16 (0.15)	-0.17 (0.16)	-0.15 (0.15)	-0.14 (0.16)	-0.15 (0.16)	-0.13 (0.16)
CEO tenure	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)	-0.05 (0.05)
CEO age	0.05 (0.05)	0.05 (0.05)	0.05 (0.05)	0.05 (0.04)	0.06 (0.05)	0.05 (0.05)	0.06 (0.05)
CEO gender	-0.16 (0.15)	-0.17 (0.14)	-0.11 (0.17)	-0.17 (0.14)	-0.19 (0.15)	-0.17 (0.15)	-0.19 (0.15)
CEO elite education	0.07 (0.07)	0.07 (0.07)	0.09 (0.08)	0.05 (0.07)	0.08 (0.07)	0.06 (0.07)	0.08 (0.07)
CEO elite employment	-0.03 (0.10)	-0.03 (0.10)	-0.02 (0.10)	-0.03 (0.10)	-0.04 (0.10)	-0.03 (0.10)	-0.03 (0.10)
CEO ownership	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.07 (0.07)	-0.08 (0.07)	-0.07 (0.07)	-0.08 (0.07)
CEO duality	0.01 (0.07)	0.01 (0.07)	0.01 (0.07)	0.01 (0.07)	-0.02 (0.07)	0.01 (0.07)	-0.00 (0.07)
Ownership concentration	-0.10*** (0.04)	-0.10*** (0.04)	-0.10*** (0.04)	-0.10*** (0.04)	-0.11*** (0.04)	-0.10*** (0.04)	-0.10*** (0.04)
ROA	0.10 (0.10)	0.10 (0.10)	0.10 (0.10)	0.11 (0.11)	0.10 (0.11)	0.10 (0.10)	0.10 (0.10)
Tobin's q	0.17** (0.07)	0.17** (0.07)	0.16** (0.07)	0.17** (0.07)	0.16** (0.07)	0.17** (0.07)	0.17** (0.07)
Firm size (total assets)	0.12* (0.07)	0.12* (0.07)	0.13* (0.07)	0.13** (0.06)	0.12* (0.07)	0.13** (0.06)	0.12* (0.07)
ROA _(t-1)	-0.11 (0.10)	-0.10 (0.10)	-0.11 (0.10)	-0.10 (0.10)	-0.10 (0.10)	-0.10 (0.10)	-0.10 (0.10)
Tobin's q _(t-1)	-0.14* (0.08)	-0.14* (0.08)	-0.14* (0.08)	-0.14* (0.08)	-0.13* (0.08)	-0.14* (0.08)	-0.15* (0.08)
Family board members	-0.03 (0.04)	-0.03 (0.04)	-0.02 (0.04)	-0.03 (0.04)	-0.05 (0.04)	-0.03 (0.04)	-0.05 (0.04)
Lone-founder CEO	0.05 (0.15)	0.07 (0.16)	0.07 (0.15)	0.07 (0.16)	0.05 (0.15)	0.07 (0.16)	0.03 (0.15)
Dividend payout	0.03 (0.02)	0.03 (0.02)	0.03 (0.03)	0.03 (0.02)	0.03 (0.02)	0.04 (0.02)	0.03 (0.02)
Market risk (beta)	0.06* (0.03)	0.06* (0.03)	0.06* (0.04)	0.06* (0.03)	0.05 (0.03)	0.06* (0.03)	0.06 (0.03)
Idiosyncratic risk	-0.06* (0.13)	-0.06* (0.13)	-0.07** (0.13)	-0.06* (0.13)	-0.05* (0.13)	-0.06* (0.13)	-0.05* (0.13)
Family CEO	0.05 (0.13)	0.04 (0.13)	0.01 (0.16)	0.06 (0.13)	0.07 (0.13)	0.05 (0.13)	0.10 (0.14)
Shared name	-0.02 (0.07)	-0.02 (0.07)	0.00 (0.10)	-0.03 (0.07)	-0.04 (0.07)	-0.02 (0.07)	-0.03 (0.07)
Name ratio	0.04* (0.02)	0.04* (0.02)	0.03* (0.02)	0.05** (0.02)	0.12*** (0.03)	0.04* (0.02)	0.04 (0.02)
Picture appearance	-0.08 (0.09)	-0.08 (0.10)	-0.07 (0.09)	-0.11 (0.09)	-0.12 (0.10)	-0.08 (0.10)	0.07 (0.13)
Family ownership	0.10** (0.05)	0.09** (0.04)	0.17*** (0.06)	0.08** (0.03)	0.11** (0.04)	0.08** (0.03)	0.10** (0.05)
Family CEO × Family ownership	-0.04 (0.08)		-0.11 (0.10)		-0.05 (0.07)		-0.03 (0.08)
Family CEO × Family ownership × Shared name		-0.05 (0.08)	0.15 (0.11)				
Family CEO × Shared name			-0.02 (0.16)				
Family ownership × shared name			-0.18*** (0.07)				
Family CEO × Family ownership × Name Ratio				-0.08*** (0.03)	-0.16** (0.06)		
Family CEO × Name Ratio					-0.12 (0.08)		

(Continues)

TABLE 3 (Continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Family ownership × Name Ratio</i>					0.10*** (0.03)		
<i>Family CEO × Family ownership × Picture appearance</i>						-0.06 (0.10)	-0.23 (0.15)
<i>Family CEO × Picture appearance</i>							-0.28 (0.17)
<i>Family ownership × Picture appearance</i>							0.22** (0.10)
Constant	8.84*** (0.17)	8.85*** (0.16)	8.87*** (0.17)	8.85*** (0.16)	8.87*** (0.17)	8.85*** (0.16)	8.85*** (0.17)
N	459	459	459	459	459	459	459
R ²	0.70	0.70	0.71	0.70	0.71	0.70	0.71
Wald	36591***	41660***	39732***	40067***	41194***	37810***	37762***

Note: Heteroskedasticity-robust standard errors in parentheses.
 p* < 0.10. *p* < 0.05. ****p* < 0.01.

1-year lagged versions (*ROA*(*t* - 1) and *Tobin's q*(*t* - 1)), which—consistent with their high correlation coefficients—also had high VIFs (approximately 5). To address this issue, we reran all of our models without *ROA* and *Tobin's q* and instead used only their lagged versions *ROA*(*t* - 1) and *Tobin's q*(*t* - 1). The results remained unchanged.

Finally, we reran all of our models using the broader definition of family firms provided by Anderson and Reeb (2003) and Villalonga and Amit (2006). The latter study defined a family firm as one “whose founder or a member of the family by either blood or marriage is an officer, a director, or the owner of at least 5% of the firm’s equity, individually or as a group” (Villalonga & Amit, 2006, p. 390). This increased our sample size to 810 firm-year observations and 138 family firms, but the results remained unchanged.

5 | DISCUSSION

This study sheds new light on the heterogeneous patterns of CEO compensation in family firms and on the role of social identification in this context. We set out to investigate how individual family CEOs’ social identification with their family firm differs and why some family CEOs receive higher or lower pay than other family CEOs do. The results supported our hypotheses regarding the heterogeneous levels of family CEOs’ social identification with the family firm. As expected, we found that family CEOs received lower compensation (i) when the controlling family, individual family members, or the family relations were more frequently referenced in annual reports and (ii) when the founder, individual family members, and/or the controlling family appeared in pictures in annual reports. We did not find support for the identity-defining effect of a shared name between the controlling family and family firm. Furthermore, we found that higher levels of family ownership augmented the negative influence of social identification on family CEO compensation, albeit only for the operationalization of social identification through the number of mentions of the family in the annual report.

These findings have theoretical and practical implications. From a theoretical perspective, our study emphasizes the importance of the socio-psychological characteristics and dynamics of CEOs on an individual level. Diverging from the literature, we do not assume that such characteristics are native to—and therefore homogenous among—all members of certain groups of CEOs, such as CEOs in family firms or CEOs who are family members. The literature has reported inconsistent results regarding CEO compensation in family firms, and the question of what determines CEO compensation in family firms is not fully answered. We believe that our individual-level approach both reflects the heterogeneity of previous results and offers an explanation for the lack of observable universal patterns in CEO compensation in family firms. Although we did not find support for effects that place CEOs into general categories (i.e., family CEO in a family firm), we were able to confirm differences in family CEO compensation when we allowed a CEO’s level of social identification to vary individually. Most research has focused on the “categorical” explanation for differences in family CEO compensation. In contrast, our results

suggest that the family CEOs' level of compensation is influenced more by individual factors than by broad categories of membership. Therefore, one theoretical implication of our study is a call for future research into the heterogeneity of individual family executives' socio-psychological characteristics and dynamics. Rather than focusing on categorical differences between family firms and non-family firms or between family executives and non-family executives, such research should comprehensively examine the individual differences between family executives and the social dynamics within family firms.

In addition, our study highlights the importance of socio-psychological phenomena in the process of CEO compensation setting, especially in family firms. Outside the context of family firms, a growing body of research has used sociological arguments to explain CEO pay levels and the pay-setting process (e.g., Bebchuk & Fried, 2004; Chu et al., 2018; DiPrete et al., 2010; Feldman et al., 2018; O'Reilly & Main, 2010). However, most studies focusing on executive compensation in family firms have relied on market-based theories, such as agency theory and the notion of optimal contracting (Barontini & Bozzi, 2018; Cheung & Chan, 2004; Cieślak, 2018; Combs et al., 2010; Croci et al., 2012; De Cesari et al., 2016; Gomez-Mejia et al., 2003; Jaskiewicz et al., 2017; Michiels et al., 2013). This is surprising, because family firms have important social features. Numerous studies have described the "family effect" in strategic decision-making processes, whereby the characteristics, history, interactions, and behavioral patterns of the controlling family have a profound influence—through ownership structure, management, and governance—on decision-making and other outcomes of family firms (Dyer, 2006; Klein et al., 2005). Our results therefore speak to the importance of not only acknowledging socio-psychological dynamics as a special feature of family firms but also studying their mechanisms in depth.

In highlighting the practical implications of our study, it is worth noting that many decision-makers in family firms are not fully aware of the non-economic, SEW-related goals of family CEOs and their consequences (e.g., Kammerlander & Ganter, 2015). Our theory and findings, however, lead to the practical suggestion that managers in the upper echelons of family firms need to factor in the prevailing goals and, more generally, the specific socio-psychological dynamics of family firms when making strategic decisions, such as setting the compensation of the family CEO. Social identification with the family firm is an influential socio-psychological factor that affects a family CEO's sensemaking, behavior, decision-making, and idea of an adequate pay package. Our results—specifically that the average reduction in CEO total compensation is U.S.\$794,224.20 when the family is mentioned one additional time in the annual report (relative to report length) and U.S.\$2,383,672.60 when the family is pictured in the annual report at least once—suggest that decision-makers in family firms should take such effects seriously. Most importantly, our results suggest that it is crucial to be aware of individual family CEOs' level of identification rather than assuming that all family members socially identify to the same extent with family firms. Consequently, we recommend that decision-makers in family firms be mindful of social dynamics internal to the family, as these may strongly influence

the social identification of the family CEO and therefore her or his preferences around compensation.

Our study makes two contributions to the literature on family firms, social identification, and CEO compensation. First, most studies have explained differences in family firm processes and outcomes based on the faultlines between groups of CEOs, such as CEOs in family versus non-family firms or family versus non-family CEOs in family firms. In contrast, we emphasize the importance of social identification, which can vary individually even among individuals belonging to the same group. Our results thus suggest that it is not simply being a family CEO that influences a CEO's expectations and bargaining efforts regarding her or his compensation. Instead, the level of compensation depends on the family CEO's level of identification with the family firm, which can vary even within the group of family executives. This interpretation reflects the finding of a few recent studies that family CEOs receive lower CEO compensation only in certain situations. For example, Combs et al. (2010) argued that this relationship is negative only when multiple family members are involved in the management or on the board of the firm, not when the CEO is the lone family member involved. Similarly, Cheng et al. (2015) found that only the controlling shareholder's ownership was negatively associated with the executive compensation of the top three managers in family firms, whereas the ownership of other family shareholders had a positive influence.

Second, our study contributes to knowledge on the relationship between social identification and executive compensation. Although some studies outside the family firm literature have analyzed this relationship with regard to employee compensation (e.g., Abraham, 2017; Giarratana et al., 2018) or the decoupling of CEO pay or perquisites from firm performance (Boivie et al., 2011), this topic has been neglected in research on executive (especially CEO) compensation. This is surprising, considering not only the immense breadth of the literature on compensation but also the influential role of CEO compensation in CEO behavior, decision-making, and firm outcomes (e.g., Devers et al., 2007; Devers et al., 2008; Finkelstein & Hambrick, 1996).

Our results suggest that in the context of a family firm, the CEO's level of social identification with the firm decisively influences the level of her or his compensation. Our findings are consistent with research on the relationship between social identification and employee compensation, which has suggested that compensation patterns are subject to the social identification of either the pay-recipients themselves or of others involved in the compensation-setting process. For example, Giarratana et al. (2018) showed that the effect of misaligned rewards on the behavior of individuals (in their case, corporate inventors) depended on their social identity. Similarly, Abraham (2017) found that the social identity of a manager influenced her or his compensation-setting for employees according to whether those employees fell into the same social identity category as the manager (the "in-group") or not (the "out-group"). Moreover, our results are consistent with those of Boivie et al. (2011), who, outside the context of family firms, showed that CEOs' identification with their firms reduced their tendency to engage in activities that incur

agency costs and harm their firms, such as decoupling firm performance from CEO pay or perquisites. Although Boivie et al. (2011) did not focus on the level of CEO compensation directly, they confirmed that CEOs in non-family firms can display differing levels of identification with their firms (cf. Lange et al., 2015; McDonald et al., 2018) and that this variation in identification can affect elements closely related to compensation.

Our study has several limitations. First, regarding the variables used to capture family CEOs' outward signs of identification with the family firm, we used the family's visibility in annual reports and a shared family-firm name as inferential proxies for the heightened social identification of family CEOs. Our study therefore builds on existing works on CEO characteristics, which involve measuring CEOs' psychological states through appropriate but unobtrusive and measurable proxies (e.g., Chatterjee & Hambrick, 2007; Gamache et al., 2015). However, although the developed proxies allowed us to base our analysis on visible signs of social identification and highlight these socio-psychological dynamics in a large-scale, longitudinal study, they did not directly measure the family CEO's identification with the family firm. In some instances, the use of proxy variables exacerbates the challenge of ruling out alternative explanations for the mechanisms under study, because the validity of the variables is more difficult to assess. Although we believe that we did our best to address potential biases and competing explanations, future research could provide further insights into how well our proposed indicators of social identification truly proxy for a family CEO's level of identification with the family firm.

Second, collecting data on family firm variables involves several challenges, as discussed in the literature (e.g., Cannella et al., 2015; Villalonga & Amit, 2006). For example, because of the use of governance instruments such as dual class shares and family trusts, accurately identifying family ownership in proxy statements is complex. We identified ownership by aggregating across all classes of shares and across all family members the amount of shares with investment and/or voting power held by the family. In addition, counting pictures of and references to the family in annual reports required us to judge whether family members were mentioned or pictured because of their family status or because of their role within the company (e.g., CEO or Chairman). Nevertheless, to guarantee the reliability of these measures, we formulated clear criteria and three researchers (including one of the authors) coded the annual reports, with satisfactory inter-coder reliability.

6 | CONCLUSION

Drawing on social identification theory, we show why some family CEOs of family firms receive higher or lower pay than others do. Our findings indicate that different outward signs of social identification, such as prominent references to the family or family members' appearance in pictures in the annual reports, are associated with reduced family CEO compensation. Overall, our study confirms the relevance of social identification processes and indicates the importance of family members' identification with the family firm for setting CEO compensation, a factor that has been largely overlooked in the literature.

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NOTES

- ¹ We follow the literature in hypothesizing that CEOs take an active role in the compensation setting process and are willing to use their bargaining power to influence their pay (Belliveau et al., 1996; Hill & Phan, 1991; Shin, 2016). For instance, Hill and Phan (1991) found that with longer tenure, pay packages tended to reflect CEOs' preferences more closely. Belliveau et al. (1996) found that increased status gave CEOs greater influence over their pay.
- ² We chose 2006 as the starting year of our sample period considering the modifications made in that year to the ExecuComp database in response to changes in the format of the SEC Def 14A report on executive compensation.
- ³ Following recommendations by Aguinis et al. (2013), we analyzed the frequency and influence of the outliers. Through boxplots and standard deviation analyses, we identified 15 firm-year observations in which the CEO total compensation exceeded 2.24 standard deviation units above the mean. Furthermore, we identified two firm-year observations in which the CEO total compensation value was below U.S.\$1000.
- ⁴ Although several—sometimes conflicting—explanations have been offered for why family CEOs, as a group, may or may not accept a lower level of compensation, these explanations were not directly part of our analysis, nor did they bias our results. Our analysis instead focused on how the basic relationship between being a family CEO and the level of CEO compensation is influenced by differences in an individual family CEO's degree of social identification with her or his family firm.
- ⁵ The detailed results of the robustness tests are not reported in this paper but are available from the authors on request.

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