

# **The Influence of Family Firms CEO Identity on Stakeholders Brand Perception**

## **Abstract**

This study extends research on family firms' heterogeneity by exploring the role of CEO identity – i.e., family vs nonfamily CEO – in relation to the way external stakeholders talk about the brand of the family firm s/he leads – i.e., brand importance. Drawing on text mining and social network analysis techniques, and considering the brand prevalence, diversity, and connectivity dimensions, we use the Semantic Brand Score to measure the importance that external stakeholders give to family firm brands. The analysis of a sample of 63 Italian family firms reveals a negative relation between family CEOs and brand importance, and a positive moderating effect of firm longevity. This study advances literature by providing an alternative perspective on how CEO identity influences external stakeholders' perception of family firms' brand.

**Keywords:** Family firm; CEO identity; Firm longevity; Brand importance; Semantic Brand Score.

## **Introduction**

Family business literature has extensively investigated the role played by family CEOs opposite to nonfamily ones. According to family business literature, the CEO identity (i.e., being a family vs. nonfamily member) plays a significant role in corporate leadership and explains differences in corporate strategy and performance amongst family firms (Miller et al., 2013). So far, among others, scholars have focused their attention on performance implications in terms of commitment to family firms' long-term goals, expertise, R&D intensity and risk adoption (e.g., Gomez-Mejia et al., 2003; Sciascia & Mazzola, 2008). A relatively less explored area of research considers instead the influence that CEO identity has on the external stakeholders' perception of family firms' brand. Tackling this aspect is important because, on the one hand the CEO is the individual who represents the firm externally; on the other hand, the importance that external stakeholders attribute to family firms' brand is crucial to advance our understanding of how these stakeholders can affect consumer choices that lead to the firm's competitive advantage.

To address this pressing topic, we investigate whether CEO identity associates to the way external audiences talk about the brand of the family firm s/he leads. In so doing, we build on *brand importance*, which is a new construct that points to the relevance a brand has in a discourse given the richness and uniqueness of its image, its visibility, and the possibility to act as a bridge connecting different discourse topics (Rovelli et al., 2022, p. 694). Moreover, making a step forward, we also investigate whether this relation is affected by firm longevity, as detected by firm generation. To achieve our aim, we analyze data on 63 Italian family firms, which we gathered from balance sheets, news articles, and other secondary source of information. To investigate stakeholders' brand perception, we use social network and semantic analysis methods on a sample of 52,555 news articles published in 2017 about these family firms.

Results demonstrate a positive relationship between the presence of a nonfamily CEO managing the family enterprise and brand importance, supporting our hypothesis. According to our research, nonfamily CEOs running family businesses are more likely to be regarded as having superior managerial abilities and specialized knowledge by external stakeholders. This would thus explain the favorable correlation between a higher brand importance and having the brand be seen as having more brand equity and expertise from the outside. However, our data also show that this positive relationship is dependent on the family firm's longevity, as measured by firm generation. In particular, the longevity of the family business has a negative impact on the positive effect that the professional expertise associated with the presence of a nonfamily CEO has on brand importance. This can be explained by the fact that a family CEO might be more highly regarded by external stakeholders as having the ability to uphold the family business's tradition and promote brand importance. On the other hand, external stakeholders could prefer the presence of an external leadership when the family business is still developing and thus unable to benefit from a permanent legacy. These findings contribute to family business literature by offering an alternative perspective on external audiences' perception of family firms' brand by taking into consideration the role of CEO identity.

### **Theoretical background and hypotheses development**

Firm leadership represents an important aspect of family firm heterogeneity. In family business literature, firm leadership has been examined from various perspectives (Arzubiaga et al., 2018; Kraus et al., 2011; Xi et al., 2015). Within this stream of literature, most of the studies to date focus on how the family is involved in business decisions and who owns the company (Chrisman et al., 2005; Sharma, 2004; Tagiuri & Davis, 1996), dedicating most of the attention to the role that family members play both in family management and family ownership (Stewart & Hitt, 2012). However, in recent years, the growth of the family business

field has encouraged academics to widen their emphasis beyond family members and to explore other actor groups working in family enterprises, giving birth to a new line of research.

This growing stream of literature has concentrated efforts on investigating the relative effectiveness of family vs. nonfamily CEOs as top executives (Miller et al., 2014). These studies have compared the impact of CEO identity (i.e., whether the CEO belongs to the family owning the firm or not) on firm performance in terms of commitment to family firms' long-term goals (Sciascia & Mazzola, 2008; Zellweger, 2007), knowledge, competence, experience and expertise (Bloom & Van Reenen, 2007; Chrisman et al., 2014; Jaskiewicz et al., 2017; Miller et al., 2014), as well as R&D intensity and risk adoption (Gomez-Mejia et al., 2003). Nonetheless, although the extant literature has recognized that the CEO is considered “the most powerful individual in the organization” (Busenbark et al., 2016, p. 258) and the individual who ultimately represent the firm to the public, an external perspective on how heterogeneity in firm leadership affects stakeholders' perception of the firm is largely lacking. To address this pressing topic, we investigate whether CEO identity associates to the way external audiences talk about the brand of the family firm s/he leads. To do so we rely on the concept of *brand importance*.

--- Insert Table 1 about here ---

Brand importance is a relatively new construct comprising the three dimensions of prevalence, diversity, and connectivity as defined in Table 1 (Fronzetti Colladon, 2018). These dimensions are related to the well-known brand knowledge and equity models (Keller, 1993; Wood, 2000). In detail, *prevalence* points to how often a brand name is mentioned in a discourse, capturing its visibility, and offering an indication of its awareness (Aaker, 1996b; Keller, 1993). A high prevalence suggests that news readers will recall and recognize a brand. *Diversity* is linked to the concept of heterogeneity of brand associations and therefore related to brand image (Keller, 1993) capturing the variety and uniqueness of words mentioned in

association with a brand. Heterogeneous associations are usually preferred, as they show the brand is embedded in a richer discourse (Fronzetti Colladon, 2018), contributing to brand strength (Grohs et al., 2016). The third dimension, *connectivity*, represents the extent to which a brand can bridge connections between words that are not directly connected. As Fronzetti Colladon (2018, p. 152) highlights “connectivity could be considered as the ‘brokerage’ power of a brand, i.e. its ability of being in-between different groups of words, sometimes representing specific discourse topics”.

### ***CEO identity and brand importance***

Past literature suggests that, in most cases, hiring a nonfamily CEO results in an improvement in knowledge, competence, and managerial expertise of the firm. Indeed, a nonfamily CEO may bring into the family firm a superior managerial talent that may not be present in the small pool of family member candidates (Miller et al., 2013; Miller et al., 2014). The appointment of a nonfamily CEO, in fact, helps family businesses in expanding their knowledge base and improving their capacity to recognize and seize lucrative economic possibilities (Baldwin et al., 2015; Block, 2011; Chirico, 2008). Besides, governance research recognizes the distinct and superior managerial competence of nonfamily CEOs, suggesting a greater contribution to effective strategy making when their skills are used in decision making (Belhassen & Caton, 2009; Chirico, 2008; Chrisman et al., 2004a, 2004b; Hall & Nordqvist, 2008) and acknowledging that nonfamily CEOs are generally more openly oriented toward the external environment (Baldwin et al., 2015; Block, 2011).

On the contrary, current research highlights that family CEOs have little cognitive exposure to the outside world because most of their professional expertise is gained within the family business. Empirical evidence shows in fact that family CEOs have far longer tenures than nonfamily CEOs (James, 1999), which results in higher cognitive constraints (Gomez-Mejia et

al., 2003) and a dedication to the status quo at the price of innovation and change (Hambrick & Fukutomi, 1991). Long tenures have been proved to stifle creativity and innovation (Kellermanns & Eddleston, 2004), breeding cognitive rigidity, while restricting the capacity to envision new opportunities and encouraging the preservation of the status quo (Finkelstein & Hambrick, 1990; Hambrick & Fukutomi, 1991). For these reasons and according to this line of research, we contend that external stakeholders are likely to associate family firms managed by nonfamily CEOs with the idea of superior managerial competence and professional expertise. This in turn would reflect on the brand, which is externally perceived as stronger in terms of brand equity and knowledge. We thus posit:

*H1. The presence of a nonfamily CEO positively relates to family firm's brand importance.*

### ***The moderating role of firm's longevity***

We argue that the relation in Hypothesis 1 is affected by the family firm's longevity, represented by firm generation. Specifically, the positive influence that the professional expertise connected with the presence of a nonfamily CEO we expect to have on brand importance might be negatively affected by the family firm's longevity. A longest-lived family firm is indeed typically perceived as more attached to its own tradition and its well-established organizational culture based on strongly embedded organizational values. A family CEO would thus be better valued by external stakeholders as able to protect the family firm's tradition, fostering brand importance, exacerbating the range of branding association that the literature ascribed to family firms, including being traditional, dependable, local, socially conscious, long-term oriented, or community- and customer-oriented (Anderson & Littrell, 1995; Astrachan et al., 2018; Botero et al., 2018; Sageder et al., 2018).

Contrarily, when the family firm is in its early stages of development and thus could not

leverage on a long-lasting heritage, external stakeholders would value more the presence of an external leadership. An external CEO is indeed expected to provide additional professional competences, which are particularly needed in early stages of development to ensure the firm's survival and growth. Therefore, considering young family firms, external stakeholders would value more the presence of an external CEO rather than a family one, weakening the hypothesized relation.

*H2. The firm longevity negatively moderates the relation between the presence of a nonfamily CEO and family firm's brand importance.*

## **Methodology**

### ***Data collection***

To investigate the role of CEO identity in stakeholders' brand perception and the moderating role of firm longevity, we relied on a sample of Italian family firms, which we identified among those listed in the Forbes' 2018 ranking of the Top 100 Italian entrepreneurial families and their businesses<sup>1</sup>. Following Micelotta and Raynard (2011), this type of firm is indeed of particular relevance for our aim because entrepreneurial families (and their businesses) are well renowned for their entrepreneurial orientation (Sieger et al., 2011; Zellweger et al., 2012), which in turn affects their orientation toward their brand (e.g., Chang et al., 2018). As in a previous study by the authors, we excluded 32 of the 100 family firms in the list because the name of their brand easily associates with famous individuals or products other than the firm, or because more than one firm exists with the same name. We gathered data on firms' characteristics using firms' balance sheets from the AIDA database managed by Bureau van Dijk as well as coding information from secondary sources (e.g., firm's website). We then retrieved from Telpress International B.V. textual data of Italian online news articles –

---

<sup>1</sup> <https://forbes.it/classifica/100-famiglie-imprenditoriali-italiane-forbes/>

consisting in the articles of major online newspapers, press agencies and information websites in Italy – published in the year 2017. We considered all the articles that mentioned at least once the firms in our sample, for a total of 52,555 documents. We then used these news articles to the purpose of measuring family firms' brand importance with the Semantic Brand Score indicator (Fronzetti Colladon, 2018). Due to missing data, the final sample consisted of 63 firms.

### ***Variables***

The dependent variable of this study is *brand importance*, which we measured by means of the Semantic Brand Score (SBS) indicator as in a previous study by the authors. The SBS is a novel composite indicator applicable to any textual data, which considers the three dimensions of brand *prevalence*, *diversity* and *connectivity* and is calculated combining methods and tools of text mining and social network analysis (Fronzetti Colladon, 2018). Specifically, *prevalence* measures how frequently a brand name occurs in the text, under the assumption that brands that are mentioned more frequently are more important, as they generate higher awareness (Keller, 1993) from both the writer's and the reader's perspective. Because a brand name might be mentioned very frequently, but always in association with the same low-informative words, prevalence is combined with *diversity*. This second dimensions of the SBS considers the heterogeneity and uniqueness of the textual brand association. Its computation is based on the social network graph based on the co-occurrence of words in the text.

The g-graph is made by  $n$  nodes (corresponding to each word appearing in the text) and  $m$  arcs interconnecting the nodes, which are weighted according to the frequency of the co-occurrence of every node pair. As suggested in prior literature, we considered 5 as a threshold for the maximum co-occurrence distance<sup>2</sup> (Fronzetti Colladon, 2018) and we filtered out rare

---

<sup>2</sup> In line with previous studies (e.g., Fronzetti Colladon, 2018), the results did not significantly differ when repeating the analysis with a different threshold (i.e., 7).

co-occurrences (i.e., links with low weights). We measured *diversity* as the distinctiveness centrality metric considering this graph (Fronzetti Colladon & Naldi, 2020): the distinctiveness is higher when a brand (node) has more links (i.e., more associations), and when these associations are less common. Finally, the third dimension of the SMS is *connectivity*, which reflects the brand's ability to act as a bridge, connecting other words and discourse topics. In other words, *connectivity* measures the “brokerage power” of the brand in the co-occurrence network, and it is operationalized through the weighted betweenness centrality (Wasserman & Faust, 1994).

The SBS indicator results from the sum of the standardized measures of prevalence, diversity, and connectivity. To calculate the SBS, we first preprocessed the news data (i.e., documents) to drop: (1) words that add little meaning to the text (stop-words, e.g., “and”, “or”); (2) word affixes (known as stemming) (Porter, 2006); and (3) punctuation and special characters (Perkins, 2014). We used the SBS BI webapp<sup>3</sup> (Fronzetti Colladon & Grippa, 2020) for all the natural language processing, brand associations, and SBS computation tasks<sup>4</sup>. The main independent variable is *nonfamily CEO*, a dummy variable equal to one if the CEO does not belong to the family owning the firm. As for the moderating factor, we measured firm longevity by means of the *firm generation*, which indicates the family generation that is managing the firm.

Finally, we included in our analysis several control variable as in similar studies in family business literature (e.g., De Massis et al., 2021; Rondi & Rovelli, 2022). *Firm size*, which we measured in terms of number of employees working in the firm, *firm age*, *geographical area dummies*, which indicate whether the family firm is located in the North-East, North-West,

---

<sup>3</sup> <https://bi.semanticbrandscore.com>

<sup>4</sup> The computing resources were provided by the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), as we used a version of the app hosted on the ENEA/CRESCO infrastructure (Iannone et al., 2019).

Centre or South of Italy, and *industry dummies*, which point to whether the firm operates in manufacturing, services or constructions.

## Results

--- Insert Table 2 about here ---

Table 2 presents descriptive statistics and correlations of the variables of our study. *Brand importance* appears to be significantly and positively correlated with the presence of a *nonfamily CEO* ( $\rho = 0.346$ ,  $p\text{-value} = 0.005$ ), which is in line with the direction of our Hypothesis 1, while it does not significantly correlate with *firm generation*. *Nonfamily CEO* and *firm generation* are not significantly correlated as well.

--- Insert Table 3 about here ---

Table 3 reports the results of the OLS models we used to test the hypothesis of this study. Before running the models, we performed variance inflation factor (VIF) tests, which excluded multicollinearity issues. Indeed, the maximum VIF is 2.83, and the average VIF is 1.85, which are both below the thresholds generally associated with multicollinearity problems (Belsley et al., 1980). Moreover, we standardized all continuous variables to ease the comparison of the resulting coefficients.

The first model is the baseline including only control variables. In this model it emerges a positive and significant relation between *firm size* and *brand importance* (coef. = 0.306,  $p\text{-value} = 0.000$ ), suggesting that larger family firms are associated to a better stakeholders' brand perception. In Model 2 we added the independent variable *nonfamily CEO*. Results confirm Hypothesis 1. The model indeed shows that *brand importance* is higher when the family firm is led by a *nonfamily CEO* (coef. = 0.426,  $p\text{-value} = 0.027$ ). This indicates that the presence of a nonfamily CEO leading the firm associated to a greater stakeholders' perception of the family firm's brand. Model 3 considers also the effect of *firm generation*, as a proxy of firm's

longevity. While the latter does not significantly associate with *brand importance* (coef. = -0.041, p-value = 0.135), the positive relation between *nonfamily CEO* and *brand importance* is still in place, even if with a lower level of significance (coef. = 0.384, p-value = 0.045). Finally, in Model 4 we tested the moderating effect of *firm generation* on the relation between the presence of a *nonfamily CEO* and *brand importance*; to interpret the results of the moderation, we used the Delta method (Hoetker, 2007) and computed Average Marginal Effects (AMEs). Results confirm Hypothesis 2, showing a negative and significant moderating effect (p-value = 0.002). Interestingly, while *nonfamily CEO* positively and significantly relates to *brand importance* when *firm generation* is equal or lower than 4 (thus for youngest family firms), Figure 1 shows that this relation turns to be negative and significant for values of *firm generation* equal or greater than 17 (thus for longest-liver family firms). This result suggests that firm longevity negatively moderates the relation between the presence of a nonfamily CEO and stakeholders' brand perception to the point that this latter relation turns to be negative.

## **Discussion and conclusion**

In this research, we study family firm leadership by adopting an external perspective and exploring the relation between the role of CEO identity – i.e., family vs. nonfamily CEO – and brand importance. In line with previous studies on family firm branding strategies (Micelotta & Raynard, 2011), we analyzed a sample of 63 Italian entrepreneurial families and their businesses. We assessed these firms' brand importance through text mining and social network analysis techniques – i.e., the SBS indicator (Fronzetti Colladon, 2018) – considering 52,555 Italian online news articles about their brands. Confirming our hypotheses, results reveal a positive relation between the presence of a nonfamily CEO leading the family firm and brand importance. Our study suggests that nonfamily CEOs managing family businesses are likely to be perceived by external stakeholders as having superior managerial skills and professional

knowledge. This would then explain the positive association with a greater brand importance, that means having the brand externally perceived to have greater brand equity and knowledge.

Nevertheless, our findings also reveal that this positive relation is contingent upon the longevity of the family firm, as represented by firm generation. Specifically, the positive influence that the professional expertise connected with the presence of a nonfamily CEO has on brand importance is negatively affected by the family firm's longevity. This could be explained by the fact that a family CEO might be more highly regarded by outside stakeholders as being able to uphold the family business's tradition and foster brand importance, thereby enhancing the variety of branding associations that the literature ascribed to family firms (e.g., being traditional, dependable, local, socially conscious, long-term oriented, or community- and customer-oriented). Contrarily, external stakeholders might instead enjoy the presence of an external leadership more when the family firm is in its early stages of development and hence could not benefit from a long-lasting heritage.

This study contributes to research on family firms' heterogeneity by offering an alternative perspective on the influence of family leadership on external stakeholders' perception of family firm brands. Specifically, with our study we aim to reach a better understanding of family vs. nonfamily CEOs' external perception as a source of family firms' heterogeneity. Moreover, by adopting an external perspective and gathering data from various media sources, we were able to throw new light on how the CEO of a family business is perceived by external audiences while also acknowledging the role of media as external stakeholders (Beck, 2016).

Additionally, by using SBS to examine family firm brands, we move past the conventional application of surveys, case studies, interviews, or focus groups (Aaker, 1996a; Keller, 1993; Lassar et al., 1995), presenting a fresh (big data) strategy based on the discourse analysis of a sizable number of online news articles. Our approach enables automatic, repeatable measurements to track the value of a brand over time. We think that our study takes advantage

of the possibilities provided by the availability of rich internet text data and adds more proof that can encourage family business researchers. The adoption of big data techniques by practitioners to aid in their decision-making processes should also be encouraged.

Our study has some limitations that open up opportunities for future research. First, not all online news is readily and openly accessible, especially when there are large downloads involved. Telpress International helped us collect data by sharing their dataset of articles for 2017, which forced us to conduct a cross-sectional analysis of the data. As a result, we do not assert causation but rather offer proof of the noteworthy connections between our key variables. We encourage academics to replicate our methods over a longer time, even though we are certain of the high caliber and dependability of our findings. In fact, a longitudinal study might be beneficial to better understand the links under investigation. Second, the data used in our empirical study are from Italy, which may restrict the generalizability of our findings.

Indeed, there may be some cultural variation in the relation between the presence of nonfamily CEO and stakeholders' brand perception, as well as on the moderating effect of firm's longevity. Scholars might thus expand our work considering additional nations with different a culture than Italy. Third, our study did not allow us to separate different categories of outside media sources (in other words, different type of stakeholders). It was not possible to determine whether the investigated relations change depending on the kind of external media that wrote and published the articles despite our analysis of textual data from online articles from various sources (i.e., newspapers and news agencies). To gain a deeper understanding of the diversity of external stakeholders' perceptions of family firm brands, we invite scholars to investigate the role of various media sources in the relation between CEO identity and the brand perception of these sources.

Regardless of limitations, our work offers some advises to family firm manager to foster the perception that stakeholders may develop toward their brand. Our results highlight the

importance of the identity of the individual who is appointed as CEO. Specifically, family firms get benefits in terms of the importance attributed by stakeholders to their brand when being led by a nonfamily CEO. This suggests that a certain level of professionalization can be beneficial for family firms. Nevertheless, the presence of a nonfamily CEO is preferable only for less long-lived family firms. Results indeed suggest that stakeholders might value the family firm's brand better when these firms are at maximum at their 4<sup>th</sup> generation. At this stage, a nonfamily CEO is perceived to better fit the needs of a young firm that requires professional competence to survive and grow. For long-live family firms – i.e., at least at their 17<sup>th</sup> generation – is it instead preferable to appoint a family member as CEO. In this stage of the family firm's life, stakeholder would indeed better value the presence of a family CEO able to protect the family firm's tradition.

## References

- Aaker, D. A. (1996a). Measuring brand equity across products and markets. *California management review*, 38(3).
- Aaker, D. A. (1996b). Measuring brand equity across products and markets. *California Management Review*, 38(3), 102-120.
- Anderson, L. F., & Littrell, M. A. (1995). SOUVENIR-PURCHASE BEHAVIOR OF WOMEN TOURISTS [Article]. *Annals of Tourism Research*, 22(2), 328-348. [https://doi.org/10.1016/0160-7383\(94\)00080-8](https://doi.org/10.1016/0160-7383(94)00080-8)
- Arzubiaga, U., Kotlar, J., De Massis, A., Maseda, A., & Iturralde, T. (2018). Entrepreneurial orientation and innovation in family SMEs: Unveiling the (actual) impact of the Board of Directors. *Journal of Business Venturing*, 33(4), 455-469.
- Astrachan, C. B., Botero, I., Astrachan, J. H., & Prüggl, R. (2018). Branding the family firm: A review, integrative framework proposal, and research agenda. *Journal of family business strategy*, 9(1), 3-15.
- Baldwin, M., Biernat, M., & Landau, M. J. (2015, Jan). Remembering the Real Me: Nostalgia Offers a Window to the Intrinsic Self [Article]. *Journal of Personality and Social Psychology*, 108(1), 128-147. <https://doi.org/10.1037/a0038033>
- Beck, S. (2016). Brand management research in family firms. *Journal of Family Business Management*, 6(3), 225-250.
- Belhassen, Y., & Caton, K. (2009, Apr). ADVANCING UNDERSTANDINGS A Linguistic Approach to Tourism Epistemology [Article]. *Annals of Tourism Research*, 36(2), 335-352. <https://doi.org/10.1016/j.annals.2009.01.006>
- Belsley, D., Kuh, E., & Welsch, R. (1980). *Regression diagnostics: Influential data and sources of collinearity*. Wiley.

- Block, J. H. (2011). How to pay nonfamily managers in large family firms: A principal—agent model. *Family business review*, 24(1), 9-27.
- Bloom, N., & Van Reenen, J. (2007). Measuring and explaining management practices across firms and countries. *Quarterly Journal of Economics*, 122(4), 1351-1408.
- Botero, I. C., Astrachan, C. B., & Calabrò, A. (2018). A receiver's approach to family business brands: Exploring individual associations with the term "family firm". *Journal of Family Business Management*.
- Busenbark, J. R., Krause, R., Boivie, S., & Graffin, S. D. (2016). Toward a configurational perspective on the CEO: A review and synthesis of the management literature. *Journal of Management*, 42(1), 234-268.
- Chang, Y., Wang, X., & Arnett, D. B. (2018). Enhancing firm performance: The role of brand orientation in business-to-business marketing. *Industrial Marketing Management*, 72(17-25).
- Chirico, F. (2008). Knowledge accumulation in family firms: Evidence from four case studies. *International Small Business Journal*, 26(4), 433-462.
- Chrisman, J. J., Chua, J. H., & Litz, R. A. (2004a). Comparing the agency costs of family and non-family firms: Conceptual issues and exploratory evidence. *Entrepreneurship Theory and Practice*, 28(4), 335-354.
- Chrisman, J. J., Chua, J. H., & Litz, R. A. (2004b). Comparing the agency costs of family and non-family firms: Conceptual issues and exploratory evidence. *Entrepreneurship Theory and Practice*, 28(4), 335-354.
- Chrisman, J. J., Chua, J. H., & Sharma, P. (2005). Trends and directions in the development of a strategic management theory of the family firm. *Entrepreneurship Theory and Practice*, 29(5), 555-575.

- Chrisman, J. J., Memili, E., & Misra, K. (2014). Nonfamily managers, family firms, and the winner's curse: The influence of noneconomic goals and bounded rationality. *Entrepreneurship Theory and Practice*, 38(5), 1103-1127.
- De Massis, A., Eddleston, K. A., & Rovelli, P. (2021). Entrepreneurial by design: How organizational design affects family and nonfamily firms' opportunity exploitation. *Journal of Management Studies*, 58(1), 27-62.
- Finkelstein, S., & Hambrick, D. C. (1990). Top-management-team tenure and organizational outcomes: The moderating role of managerial discretion. *Administrative Science Quarterly*, 484-503.
- Fronzetti Colladon, A. (2018). The Semantic Brand Score. *Journal of Business Research*, 88, 150-160.
- Fronzetti Colladon, A., & Grippa, F. (2020). Brand intelligence analytics. In A. Przegalinska, F. Grippa, & P. A. Gloor (Eds.), *Digital Transformation of Collaboration* (pp. 125-141). Springer Nature Switzerland.
- Fronzetti Colladon, A., & Naldi, M. (2020). Distinctiveness centrality in social networks. *PLOS ONE*, 15(5), e0233276.
- Gomez-Mejia, L. R., Larraza-Kintana, M., & Makri, M. (2003). The determinants of executive compensation in family-controlled public corporations. *Academy of Management Journal*, 56(2), 226-237.
- Grohs, R., Raies, K., Koll, O., & Mühlbacher, H. (2016). One pie, many recipes: Alternative paths to high brand strength. *Journal of Business Research*, 69(6), 2244-2251.
- Hall, A., & Nordqvist, M. (2008). Professional management in family businesses: Toward an extended understanding. *Family business review*, 21(1), 51-69.
- Hambrick, D. C., & Fukutomi, G. D. (1991). The seasons of a CEO's tenure. *Academy of Management Review*, 16(4), 719-742.

- Hoetker, G. (2007). The use of logit and probit models in strategic management research: Critical issues. *Strategic Management Journal*, 28(4), 331-343.
- Iannone, F., Ambrosino, F., G., B., De Rosa, M., Funel, A., Guarnieri, G., Migliori, S., Palombi, F., Ponti, G., Santomauro, G., & Procacci, P. (2019). CRESCO ENEA HPC clusters: a working example of a multifabric GPFS Spectrum Scale layout. 2019 International Conference on High Performance Computing & Simulation (HPCS), Dublin, Ireland.
- James, H. S. (1999). Owner as manager, extended horizons and the family firm. *International journal of the economics of business*, 6(1), 41-55.
- Jaskiewicz, P., Block, J. H., Combs, J. G., & Miller, D. (2017). The effects of founder and family ownership on hired CEOs' incentives and firm performance. *Entrepreneurship: Theory & Practice*, 41(1), 73-103.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1-22.
- Kellermans, F. W., & Eddleston, K. A. (2004). Feuding families: When conflict does a family firm good. *Entrepreneurship Theory and Practice*, 28(3), 209-228.
- Kraus, S., Harms, R., & Fink, M. (2011). Family firm research: Sketching a research field. International. *International Journal of Entrepreneurship and Innovation Management*, 13(1), 32-47.
- Lassar, W., Mittal, B., & Sharma, A. (1995). Measuring customer-based brand equity. *Journal of consumer marketing*, 12(4), 11-19.
- Micelotta, E. R., & Raynard, M. (2011). Concealing or revealing the family? Corporate brand identity strategies in family firms. *Family Business Review*, 24(3), 197-216.

- Miller, D., Breton-Miller, I. L., & Lester, R. H. (2013). Family firm governance, strategic conformity, and performance: Institutional vs. strategic perspectives. *Organization Science*, 24(1), 189-209.
- Miller, D., Le Breton-Miller, I., Minichilli, A., Corbetta, G., & Pittino, D. (2014). When do non-family CEOs outperform in family firms? Agency and behavioural agency perspectives. *Journal of Management Studies*, 51(4), 547-572.
- Perkins, J. (Ed.). (2014). *Python 3 Text Processing with NLTK 3 Cookbook*. Packt Publishing Ltd.
- Porter, M. (2006). Stemming algorithms for various European languages. Retrieved from <http://snowball.tartarus.org/texts/stemmersoverview.html>
- Rondi, E., & Rovelli, P. (2022). Exchanging information to realize more innovation opportunities: What can family firms do? *Journal of Knowledge Management*, 26(2), 350-374.
- Rovelli, P., Benedetti, C., Fronzetti Colladon, A., & De Massis, A. (2022). As long as you talk about me: The importance of family firm brands and the contingent role of family-firm identity. *Journal of Business Research*, 139, 692-700.
- Sageder, M., Mitter, C., & Feldbauer-Durstmüller, B. (2018). Image and reputation of family firms: a systematic literature review of the state of research. *Review of Managerial Science*, 12(1), 335-377.
- Sciascia, S., & Mazzola, P. (2008). Family involvement in ownership and management: Exploring nonlinear effects on performance. *Family Business Review*, 21(4), 331-345.
- Sharma, P. (2004). An overview of the field of family business studies: Current status and directions for the future. *Family Business Review*, 17(1), 1-36.

- Sieger, P., Zellweger, T., Nason, R. S., & Clinton, E. (2011). Portfolio entrepreneurship in family firms: a resource-based perspective. *Strategic Entrepreneurship Journal*, 5(4), 327-351.
- Stewart, A., & Hitt, M. A. (2012). Why can't a family business be more like a nonfamily business? Modes of professionalization in family firms. *Family Business Review*, 25(1), 58-86.
- Tagiuri, R., & Davis, J. (1996). Bivalent attributes of the family firm. *Family business review*, 9(2), 199-208.
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge University Press.
- Wood, L. (2000). Brands and brand equity: definition and management. *Management Decision*, 38(9), 662-669.
- Xi, J. M., Kraus, S., Filser, M., & Kellermanns, F. W. (2015). Mapping the field of family business research: Past trends and future directions. *International Entrepreneurship and Management Journal*, 11(1), 113-132.
- Zellweger, T. (2007). Time horizon, costs of equity capital, and generic investment strategies of firms. *Family Business Review*, 20(1), 1-15.
- 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), 851-868.

## Tables

**Table 1.** Definition of brand importance and its components (Rovelli et al., 2022)

Concept	Definition
Brand importance	The relevance a brand has in a discourse given the richness and uniqueness of its image, its visibility, and the possibility to act as a bridge connecting different discourse topics.
Prevalence	How frequently a brand is mentioned in a discourse (the higher the frequency, the higher the prevalence).
Diversity	How much a brand is associated with heterogeneous and unique words in a discourse (the richer the discourse, the higher the lexical diversity).
Connectivity	How frequently a brand bridges connections between words that are not directly connected (the higher the number of bridging connections, the higher the brand's connective power).

**Table 2.** Descriptive statistics and correlations (p-values in parentheses)

	Mean	S.D.	(1)	(2)	(3)	(4)	(5)
(1) Brand importance	0.693	4.689	1.000				
(2) Nonfamily CEO	0.397	0.493	0.346 (0.005)	1.000			
(3) Firm generation	4.286	5.754	-0.118 (0.357)	-0.029 (0.820)	1.000		
(4) Firm size	2159.175	5465.239	0.348 (0.005)	0.201 (0.114)	-0.092 (0.472)	1.000	
(5) Firm age	103.667	111.005	0.024 (0.851)	0.059 (0.644)	0.792 (0.000)	-0.028 (0.826)	1.000

**Table 3.** Results of the empirical models testing the relation between *nonfamily CEO* and *brand importance*, and the moderating effect of *firm generation*

	Model 1		Model 2		Model 3		Model 4	
	coef.	p-value	coef.	p-value	coef.	p-value	coef.	p-value
Non-family CEO	-		0.426 (0.188)	0.027	0.384 (0.187)	0.045	0.638 (0.216)	0.005
Firm generation	-		-		-0.041 (0.027)	0.135	-0.039 (0.023)	0.101
Family CEO * Firm generation	-		-		-		-0.064 (0.020)	0.002
Firm size	0.306 (0.051)	0.000	0.251 (0.059)	0.000	0.246 (0.055)	0.000	0.232 (0.056)	0.000
Firm age	0.004 (0.075)	0.962	-0.000 (0.093)	0.997	0.174 (0.143)	0.230	0.326 (0.136)	0.020
Geographical area dummies	YES		YES		YES		YES	
Industry dummies	YES		YES		YES		YES	
Constant	-1.228 (0.631)	0.057	-0.725 (0.527)	0.175	-0.650 (0.516)	0.213	-0.334 (0.516)	0.521
Observations	63		63		63		63	
Log-likelihood	-60.08		-56.86		-55.21		-53.10	
R-squared	0.234		0.309		0.344		0.386	

Robust standard errors in parentheses.

## Figure

**Figure 1.** Average marginal effects of *nonfamily CEO* on *brand importance* at different levels of *firm generation* (95% confidence interval)

