CEO Succession and Shared Leadership: which factors shape firm performance?

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Abstract

This paper investigates the effect of CEO succession on the performance of family firms characterized by collegial leadership and the moderating role of the Family CEO, of the board of directors and by the size of the firm. The empirical analysis, carried out on a sample of Italian family firms for the years 2012-2016, shows a positive effect of succession on the performance of family businesses with shared leadership. Moreover, this relationship is negatively moderated by the composition of the co-leadership structure, the characteristics of the board of directors and the size of the firm.

Keywords: shared leadership; CEO succession; family firms; performance

Sommario

Questo paper studia l'effetto delle successioni sulle performance delle imprese familiari caratterizzate da leadership collegiale e il ruolo di moderazione svolto dalla presenza del CEO familiare, dal consiglio di amministrazione e dalla dimensione dell'impresa. L'analisi empirica, svolta su un campione di imprese familiari italiane per gli anni 2012-2016, mostra un effetto positivo delle successioni sulle performance delle imprese familiari caratterizzate da leadership collegiale. Tuttavia, questa relazione è negativamente moderata dalla composizione della struttura della leadership collegiale, dalle caratteristiche del consiglio di amministrazione e dalla dimensione dell'impresa.

Parole chiave: leadership condivisa; successione; imprese familiari; performance

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1. Introduction

The world has become increasingly globalized, changing forever the way of doing business, which require an extensive set of skills and capabilities which are unlikely to be concentrated in one single individual (Pearce and Conger, 2003; Hasija, 2016; Bövers and Hoon, 2020).

This fast-paced environment poses a real challenge for some companies, creating the urgency of changing leadership model, revolutionizing the traditional conception of having one CEO leading one company (Cristofaro *et al*., 2022).

Indeed, in the last decade some companies have decided to appoint two or more CEOs at the top of their ladder to guarantee a complete set of competencies supported by heterogeneity of points of view which could permit companies to be successful in such a challenging environment (Krause *et al*., 2015; Döös and Wilhelmson, 2021).

The concept of mutual leadership, in the management literature, was first introduced by Bowers and Seashore in 1966 (Pearce and Conger, 2003). According to their research, leadership could be exercised by peers and this process of mutual leadership influence was able to positively affect firm's performance. More recently, scholars challenged the predominant existing view by stating that leadership is an activity that can be shared among multiple people rather than being exclusively attributed to one single individual (O'Toole *et al*., 2002; Pearce and Conger, 2003).

Based on this premise, several definitions of mutual or shared leadership were introduced by different scholars (Zhu *et al*., 2018). Locke (2003) classifies leadership models in four categories, including top-down model, bottom-up model, lateral model, and integrated model, which is a combination of the former three categories. Shared leadership coincides with the lateral leadership model, and it is defined as a "*lateral influence among peers"* (Pearce and Sims, 2002, p.176) rather than vertical downward influence by an appointed leader.

This new theoretical view which gained remarkable attention from numerous scholars was reflecting a paradigm shift taking place in the business world due to the increasing complexity involving organizations, especially after Covid-19 (De Massis and Rondi, 2020; Ahlstrom *et al*., 2020; Arduino *et al*., 2021).

Appointing two or more Chief Executive Officers (CEOs) means having an organization run jointly by those individuals who are known as co-CEOs and who share executive powers. The reasons for which a company might choose to have more than one CEO in charge can be multiple. Firstly, co-CEOs might be appointed after a merger, to have both CEOs of the former

companies leading the new entity. However, this choice comes with some challenges since these CEOs have never worked together before and there is no trust-based relationship on which their cooperation can be founded (O'Toole, Galbraith and Lawler, 2002). Indeed, they happen to work together due to forced circumstances, with no previous experience or willingness to share their power. On the other hand, co-CEOs might be co-founders of a firm, who willingly decided to become partners and lead together the company. In this circumstance, it becomes easier to set up a well-working team since the two members have spontaneously decided to work together (Krause, Priem and Love, 2015).

Moreover, co-leadership is sometimes used in family businesses, where members of the same family are appointed as CEOs. This solution can be successful as long as is not employed to avoid a choice among potential CEO successors; instead, it is a powerful solution when the company needs complementary skillsets and points of views that cannot be embedded in only one individual (O'Toole, Galbraith and Lawler, 2002).

Despite the relevant interest of scholars regarding co-leadership implementation as well as the increasing trend of adoption in family firms as a succession mechanism, literature about the topic is still in its infancy.

Indeed, only a few papers can be retrieved on the topic of shared leadership implementation in family firms. Cater and Justis (2010), for example, using a qualitative approach, find eight factors that affect shared leadership in multi-generational family firms, and envision shared leadership as a viable alternative to primogeniture or the choice of a single successor. Other studies concur that while excessive competition among successor group members will hinder group effectiveness, a «*pattern of cooperation, unified implementation of decisions, mutual agreement to share power and authority, and the development of trust will enhance successor leadership group effectiveness*» (Cater and Kidwell, 2014, p. 217). Moreover, the vast majority of the existing literature about co-leadership in the family business research area is only qualitative, with the exception of the work by Farrington, Venter and Boshoff (2012), which presents, however, a focus restricted to South African sibling teams in family businesses, and is additionally limited by the study of selected team design elements, neglecting other succession process factors.

Scholars have vastly relied on the analysis of a limited number of case studies to identify which are the reasons, the benefits, and the pitfalls of such a model. However, no quantitative analysis has been performed to understand which is the actual impact of this leadership model on family businesses performance when succession is undertaken.

Therefore, the aim of this paper is to fill the gap identified by conducting quantitative research about the adoption of co-leadership model in Italian

family firms in the context of management succession, to draw conclusions on its impact of firm financial performance.

This study therefore aims to answer the RQ: *What is the impact of shared leadership succession on the financial performance of Italian family businesses?*

The final sample consisted of 102 Italian firms, carefully selected by the Aidaf-Unicredit-Bocconi (AUB) Observatory on family firms.

The present research makes a significant contribution to the existing literature by using a quantitative lens to investigate the shared leadership model in succession processes, thus expanding the literature on CEO succession in family firms. In addition, this study contributes to the literature on shared leadership by taking a quantitative approach to assess its impact on firm financial performance. This study represents one of the first of its kind, as most studies on co-leadership to date are qualitative in nature.

2. Theoretical background

2.1. Shared Leadership

The growing literature on leadership has brought to the proliferation of several definitions of such concept, increasing the lack of consensus among scholars on how to define what leadership is (Dinh *et al*., 2014; Silva, 2016).

According to research by Silva (2016, p. 3), trying to provide a comprehensive definition accounting for multiple standpoints, leadership can be defined as «*the process of interactive influence that occurs when, in a given context, some people accept someone as their leader to achieve common goals*». Hence, this definition reflects the evolving nature of leadership, since it goes beyond the traditional view according to which leadership is nothing but a personal quality, also stressing the importance of both the followers and the context to the leadership process (Van Seters and Field, 1990; Silva, 2016).

Leadership is considered one of the most important elements contributing to the success or failure of organizations, which clearly depend on the achievement of organizational objectives (Sonmez and Adiguzel, 2020). Traditionally, leadership theory was developed considering a one-dimensional and individualistic perspective, according to which organizations should be led by a single powerful leader responsible for firm's performance, usually known as CEO (Van Seters and Field, 1990; Hasija, 2016; Feigen, Jenkins and Warendh, 2022). This paradigm conceived leadership as centered around one single individual, powerful enough to undertake strategic decisions and

exert his top-down influence on subordinates to align them to the achievement of strategic objectives (Pearce and Conger, 2003).

However, starting from mid-20th century, the first research contemplating the possibility of having more than one individual holding a leadership role appeared. For example, Yukl (2006) states that shared leadership is the result of social interactions from which collective capabilities are gathered and employed to exert mutual influence. Moreover, Pearce and Sims (2001) provide a further definition of shared leadership which is in line with those previously mentioned. Indeed shared leadership is defined as "a process of shared influence between and among individuals". In addition, Pearce and Sims (2001) provide a further clarification of two concepts that nowadays might be misused as synonyms: shared leadership and co-leadership. Indeed, co-leadership refers to situations in which "two individuals simultaneously engage in one leadership position" (Pearce and Sims, 2001). Therefore, co-leadership can be classified as a peculiar case of shared leadership in which leadership is shared only between two individuals.

2.2. Diffusion of shared leadership: focus on Italian context

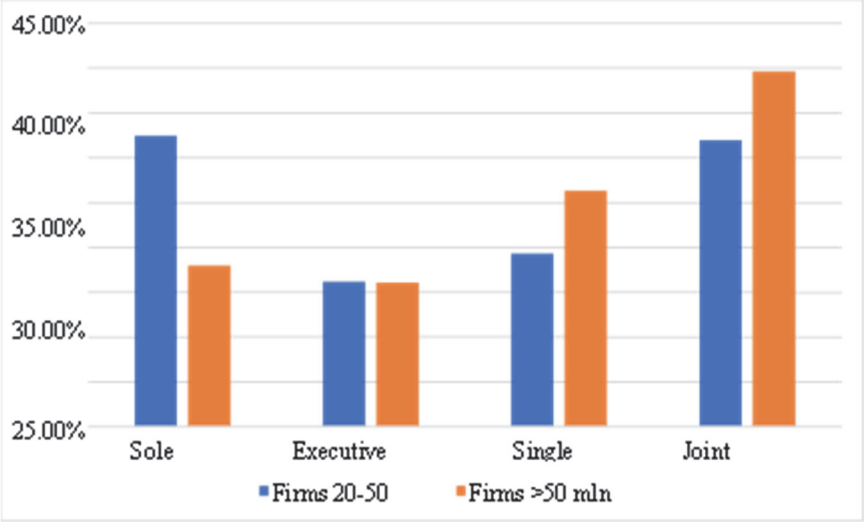
In the last decade some companies have decided to appoint two or more CEOs at the top of their ladder to guarantee a complete set of competencies supported by heterogeneity of points of view which could permit companies to be successful in such a challenging environment (Krause, Priem and Love, 2015). Opting for shared leadership is not such a new practice, indeed, some of the first attempts of co-leadership have been undertaken in the '80s (O'Toole, Galbraith and Lawler, 2002).

Shared leadership appears to be more common in countries such as Korea. Indeed, Yoo and colleagues (2021) employ a dataset of Korean listed companies and 37.3% of those firms has a co-leadership structure in place.

Contrary, the rarity of co-leadership structures in US firms is testified by Dennis, Ramsey and Turner (2010), since only 0.8% of their sample was adopting co-leadership. However, the same result cannot be confirmed when it comes to US family businesses. Indeed, in Arthur Andersen-MassMutual American Family Business Survey of 1997, more than 11% of respondent firms declared to have two or more CEOs (Alvarez and Svejenova, 2005). Moreover, the American Family Business Survey in 2002 reported that almost 9% of respondents had two co-CEOs, 3.5% had more than two co-CEOs while more than 35% of respondents declared that co-CEOs structure would have been a likely solution for transition to the next generation (Alvarez and Svejenova, 2005).

When specifically focusing on family business sector, shared leadership has become a widespread reality and appointing more than one CEO at the top of organizations has affirmed as a common practice (Cater and Justis, 2010; Farrington, Venter, and Boshoff, 2012; Cater and Kidwell, 2014; Cater, Kidwell and Camp, 2016; Bövers and Hoon, 2020; Cater and Young, 2019). Considering the reasons why co-leadership is established, Arena, Ferris and Unlu, (2011) found out that 20% of sample firms opting for co-CEOs did so in relation to M&A activities, 25% was represented by family firms due to succession influence, 15% used this model because of the existence of multiple corporate co-founders and only 9% employed co-leadership to smooth CEO succession. Similar results were confirmed by Arnone and Stumpf (2010) in their qualitative research interviewing 10 co-CEOs. Being Italy one of the countries in which family firms represent the backbone of the economic landscape, it is worth considering some statistics about the adoption of this model. As shown by Figure 1, joint leadership is a widely adopted option in Italian family firms of both small and medium/large size. Indeed, this leadership model is chosen by 32% of small family firms and 39.6% of large ones.

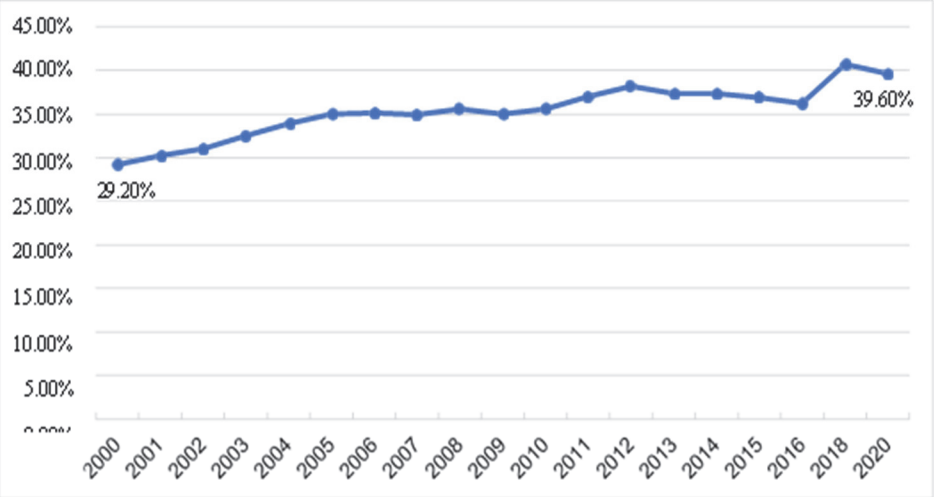
Figure 1 - Leadership models in Italian family firms



Source: Corbetta & Quarato, 2022

As shown by figure 2, in the last 20 years, firms belonging to the AUB observatory population increasingly adopted this leadership model, shifting from an adoption rate of 29,20% in 2000, to a peak of 39,60% in 2020

Figure 2 - Adoption of collegial leadership by AUB



Italian family firms in the last 20 years

Source: Corbetta & Quarato, 2022

3. Literature review and Hypotheses Development

3.1. Shared leadership succession and financial performance

Family business literature has been favoring the view considering CEO succession as a negative event for the firm, arguing that it is a threat for both organizational stability as well as family unity (Minichilli *et al*., 2014). Nonetheless, the existing quantitative studies mainly focus on individual succession, neglecting the increasing tendency of family businesses to implement co-leadership structures as a succession mechanism (Cater, Kidwell and Camp, 2016).

Indeed, among multiple case studies proposed some family firms do achieve organizational continuity and higher performance by implementing co-leadership structure to manage succession, while others fail to do so, showing that co-leadership models implemented in the context of succession worsen family firms' performance (e.g. Farrington, Venter and Boshoff,

2012; Cater and Kidwell, 2014; Cater, Kidwell and Camp, 2016; Bövers and Hoon, 2020; Cisneros *et al*., 2022). These discordant results are due to the complexity of co-leadership model, which can be a double-edged sword since it entails both numerous benefits and challenges (O'Toole *et al*., 2002; Cater and Kidwell, 2014).

Implementing co-CEOs structures to deal with management succession in family firms is perceived by some incumbent leaders as a great solution to avoid one of the toughest decisions to be made around succession: choosing among multiple next generation members (Cater, Kidwell and Camp, 2016; Montemerlo, 2021). In this case, co-leadership is implemented following exclusively family and ownership considerations, making family matters prevail over business matters. In this scenario, co-leadership is by nature doomed to fail, having negative consequences on performance. Indeed, when a pure family logic is implemented, successors are appointed as co-CEOs without carefully evaluating the propension of heirs to hold managerial positions. In this way, the risk of appointing next generation members which are underqualified for the position of CEO materializes, justified by the exclusive objective of avoiding potential conflicts that might result from the appointment of a single leader (Farrington, Venter and Boshoff, 2012; Cater and Kidwell, 2014; Montemerlo, 2021). However, when no objective business reasons are there to justify joint leadership succession, co-CEOs teams will reflect a certain level of instability due to the lack of a solid base for their existence. Indeed, no clear roles and responsibilities will be defined, and this will bring a remarkable level of confusion not only within co-CEOs but also towards the rest of the corporation (Arena, Ferris and Unlu, 2011; Yoo *et al*., 2021).

Cater, Kidwell and Camp (2016) provide extensive examples of these negative effects, showing that when co-leadership follows the negative track identified, co-CEOs engage in dysfunctional behaviors and divergent interests arise. Indeed, lack of clarity among co-CEOs translates first in disagreements that slow down decision-making and subsequently brings to relationship conflict, which cause co-leadership failure and negative impact on firm's performance (Cater, Kidwell and Camp, 2016).

Hence, based on these arguments:

Hypothesis 1a: *There will be a negative relationship between joint leadership succession and financial performance in family firms.*

On the other hand, co-leadership succession can have positive outcomes if undertaken at different conditions. When family/ownership considerations are complemented by solid business reasons to implement co-leadership around succession, this model can bring successful performance outcomes.

Firstly, since co-leadership succession is implemented considering solid business reasons, the incumbent generation will ensure the appointment of successors which can really contribute with adequate complementary competencies and skills to meet the business needs identified. When different backgrounds and points of view are integrated, usually this results in more creative and effective decision-making (O'Toole *et al*., 2002; Cater and Justis, 2010). In addition, when adequate business reasons are defined, it becomes easier to define roles, responsibilities, and duties in a clear way preventing ambiguity from insinuating among co-CEOs. This systematic approach will favor higher coordination and clarity among co-CEOs as well as towards the rest of the organization (Montemerlo, 2021). Having higher coordination and clarity does not mean that co-CEOs will never engage in conflicts. However, these conflicts are more likely to be task or cognitive ones, hence referred to which goal should be achieved and how this should be done (Cater, Kidwell and Camp, 2016).

Family business literature has demonstrated that these two types of conflict are not detrimental for the firms, instead, they can be beneficial because having divergent opinions on task and processes to reach certain goals can stimulate conversation among the actors involved, resulting in enhanced decision-making (McKee *et al*., 2014). This outcome reflects the positive track identified by Cater, Kidwell and Camp (2016), according to which the enhanced coordination, effective conflict management and joint decision-making at the conditions just mentioned brings to preserving business continuity as well as enhanced firm's performance.

Moreover, another reason for which joint leadership succession could bring positive performance is the natural propensity of this model to permit the creation of inter-generational leading teams in which senior generation provides coaching to next generation. This structure allows for a smooth and gradual succession process, avoiding the risk of an abrupt change in leadership that creates instability thus negatively impacting performance (Montemerlo, 2021). Indeed, co-CEOs will fine-tune their intra-collaboration supported by a senior member; senior generation will gain increasing confidence about successors and will gradually let go in favor of the next co-leaders and lastly, it is a way for other collaborators to get to know and trust next generation leaders, thing that will avoid confusion and distrust once the full succession process will be completed (Montemerlo, 2021).

Lastly, appointing more than one CEO can also permit the combination of family CEOs and non-family CEOs. The latter can support the former with their professional skills and background favoring the creation of highly effective teams combining the family component with external additional competencies, resulting in a positive impact to firm performance (Poza and Daugherty, 2014).

Therefore, according to these reasons:

Hypothesis 1b: *There will be a positive relationship between joint leadership succession and financial performance in family firms.*

3.2. Family involvement and shared leadership succession outcome

Research on CEO succession in family businesses is extremely extensive and it is mainly focused on understanding the impact on performance following the appointment of either a family CEO or a non-family CEO. Researchers argue that family CEOs could be expected to perform better than non-family ones due to their long-term focus, attachment to the business on the basis of their family ties as well as because they are often transmitted tacit knowledge from predecessors (Bennedsen *et al*., 2007).

However, these points of strengths of family CEOs seem to be offset due to several reasons, which cause their underperformance compared to non-family CEOs. Indeed, several studies shows that if the successor is a family CEO, performance are negatively impacted (Huson, Malatesta, and Parrino, 2004; Bennedsen at., 2007; Lin and Hu, 2007; Luan *et al*., 2018;). This result is owed to the fact that family CEOs are selected from a limited pool of candidates which automatically excludes more competent managerial talents from the selection process (Smith and Amoako-Adu, 1999). Therefore, family members appointment to CEO position seem to translate in nepotism due to the biased decision of the incumbent generation (Bennedsen *et al*., 2007).

In addition, pursuing both economic and non-economic goals is one of the distinguishing features of family businesses when compared to non-family firms (Gomez-Mejia *et al*., 2011). Indeed, family owners usually have a special emotional connection to their firm which represents the recipient of family's affective stock which the family attempts to carefully preserve. This family affective stock has been defined by literature as Socio-Emotional Wealth (SEW) and it has been the focus of extensive research in the family business literature. According to Socio-Emotional Wealth (SEW) theory family owners frame management decisions not only by considering financial goals, but also the preservation of the «stock of affected related value that the family has invested in the firm» (Berrone, Cruz and Gomez-Mejia, 2012, p. 82). Considering the case of shared leadership succession, having co-CEOs teams composed by only family members might make SEW considerations prevail over business needs, therefore resulting in sub-optimal decisions, which determines a negative impact on performance.

On the other hand, many scholars support the superiority of non-family

CEOs appointment in family firms, arguing that non-family CEOs are appointed following a merit logic and can provide valuable contribution to the firm with their professional managerial skills and capabilities which are often lacking in family successors (Bennedsen *et al*., 2007). Based on this, including non-family CEOs when implementing shared leadership succession might be beneficial since non-family CEOs can contribute to business needs with their superior capabilities and, in addition, can support family co-CEOs in balancing economic and non-economic goals, ultimately providing a positive impact to corporate performance. For these reasons, we can expect joint leadership succession family firms implementing co-CEOs teams with at least one nonfamily member to perform better than those appointing only family members as co-CEOs. Therefore:

Hypothesis 2: The financial performance outcome of shared leadership succession is worsened when co-CEOs are only family members.

Considering additional disputed topics regarding family involvement in family businesses, the composition of the Board of Directors is worth particular attention (Rubino, Tenuta and Cambrea, 2017). The Board of Directors (hereafter BoD) has been extensively recognized as the central governance body when it comes to important governance and strategic transitions, including the appointment, evaluation, and retention of the new CEO (Gomez-Meija *et al*., 2011; Berrone, Cruz and Gomez-Mejia, 2012). According to Gomez-Mejia *et al*. (2011), involving family members in the board of directors is one of the key mechanisms employed by family firms to ensure the protection of their SEW. Indeed, appointing family members on the BoD is a way for family ownership to maintain control and exert pressure on top executives' appointments, especially the CEO, such that family's objectives can be pursued (Gomez-Meija *et al*., 2011).

Therefore, following this reasoning, when BoD is closed, meaning fully composed by family members, it is likely that SEW perspective will overcome the financial perspective since the family focus is not adequately balanced by the presence of independent directors, who not only do not belong to the family, but also have no kind of attachment to the business. Therefore, when it comes to joint leadership succession, co-CEOs structure might be the result of pure SEW considerations when the BoD is composed by only family members. Therefore, shared leadership will not be chosen because considered a superior succession model to cope with specific business reasons, but rather to meet SEW objectives. Therefore, according to these reasons, family firms undertaking shared leadership succession are expected to perform worse when the BoD is closed. Consequently:

Hypothesis 3: BoD composed exclusively by family members negatively moderates the financial performance outcome of shared leadership succession in family firms.

3.3. Firm size and shared leadership succession outcome

Co-leadership structures are highly complex models which can provide several benefits, but only if implemented at certain conditions that mitigate their structural drawbacks. The present work hypothesizes that co-leadership succession might be a structure too complex to work effectively in large family businesses. Indeed, the organizational rigidity likely to be caused by the formalization process might hamper effective coordination between co-CEOs. Indeed, co-CEOs could not rely on informal communication and decision-making and should adhere to formal mechanisms which might slow down decision-making and might cause managerial guidelines ambiguity. On the other hand, in small family firms not subjected to organizational complexity, shared leadership succession might be more appropriate and less difficult to implement. Indeed, the informality characterizing these firms might allow easier coordination and communication.

In addition, another reason why shared leadership succession might be successful in small companies could be related to the reliance of small family firms on tacit knowledge as a source of competitive advantage (Martínez, Galván and Palacios, 2013). Small family firms base their competitive advantage on tacit knowledge, whose main resource is represented by predecessors' skills and capabilities (Martínez, Galván and Palacios, 2013). Hence, tacit knowledge is a strategic asset that should be transferred when succession occurs. Since co-leadership succession is a model favoring the transition supported by predecessors coaching to next generation members, it automatically permits the transfer of tacit knowledge, typical of small firms, which can support the achievement of better performance post-succession. Considering these reasons:

Hypothesis 4: Firm size negatively moderates the financial performance outcome of shared leadership succession in family firms.

4. Methodology

4.1. Sample

The present research is mainly based on using archival data. Indeed, the starting point of this analysis is the AUB observatory database, which is the most complete and extensive database available in Italy on family-controlled companies. The dataset included a total of 7679 Italian family firms with observations between 2000 and 2016. Data about ownership, governance, and management were provided for each observed year, together with relevant information about succession (if it was the case). For each firm was present: i) information about whether leadership succession was ever undertaken during the timeframe considered, along with succession year, specifications about the type of succession, CEO number, CEO age, CEO tenure, gender, familiarity, generation in which succession took place; ii) governance data, such as Board of Directors composition, age of directors, length of service, and again gender and familiarity.

Therefore, all the information related to ownership, governance and management were extracted from the AUB Observatory dataset, on the other hand, economic and financial information such as ROA, ROE, revenues, firm age and the other financial indicators considered were retrieved from AIDA (Italian Digital Database of Companies – the Italian branch of Bureau van Dijk databases). To ensure data were available to perform this analysis, the timeframe between 2012 and 2016 was considered. The total number of Italian family firms that experienced a succession in the considered timeframe was 2455 (out of a total of 7679 family firms included in the database). Since the focus of this paper is the generational transition undertaken shifting from sole leadership to joint leadership, all firms that experienced a different type of succession in the timeframe considered were excluded. This selection criteria brought to a total of 130 family firms. Among these firms, 28 had to be excluded since financial data was not available on Aida, resulting in a total of 102 firms included in the sample.

4.2. Variables and Analytical Technique

The dependent variable employed in this study is Return on Equity (ROE), which is calculated as Net Income over Equity and represents a key accounting measure of a firm's financial performance. ROE has been selected since it is widely used in existing CEO succession research (e.g., Datta and Rajagopalan, 1998; Shen and Cannella, 2002; Pérez-González, 2006;

Cucculelli and Micucci, 2008; Zhang and Rajagopalan, 2010; Minichilli *et al*., 2014).

Independent variables included in the model cover information about firms, governance, and CEO succession. Firstly, to test the general effect of joint leadership succession, a dummy variable Succession was constructed, being equal to one for the three years after a joint leadership succession occurred and zero for the three years before succession (as well as for non-succession firms and one-to-one succession firms included as control group respectively in the first and second model). Secondly, in order to assess the impact of the family on succession outcome, a dummy variable named Pure family was included in the model, taking value of one if the co-CEOs team after succession was composed by exclusively of family members, and a value of zero otherwise (as well as for non-succession and one-to-one succession companies). Additionally, the dummy variable Family BoD was included to analyze how the impact of joint leadership succession varied according to the presence of an open or closed Board of Directors. Indeed, Family BoD is equal to 1 if the board is closed, meaning composed of only family members, while equal to zero if at least one director is non-family. Along with the variables just described, an additional independent variable was included, Big company. It is a dummy variable equal to one if the size of the firm (measured in terms of revenues) is above 50 million euros, and zero otherwise. This last independent variable was considered to test if the joint leadership succession effect changed according to whether the firm was small-medium or large size.

The set of firm controls of this regression analysis includes Firm size, Leverage, Cash holding, Tangibility, Firm age, CEO number, CEO age and Family directors. Firm size measures the size of the company computed as the natural logarithm of annual sales, which has been often employed as a contextual variable which could have an impact on firm performance (Cucculelli and Micucci, 2008; Ansari, Goergen, and Mira, 2014; Minichilli *et al*., 2014). In order to control for capital structures and liquidity differences which might influence firm financial performance, the two variables Leverage and Cash holding were included, as done in previous research (e.g. Amore *et al*., 2021). The former was calculated as debt over total assets and the latter was computed as cash and cash equivalents over total assets. Tangibility calculated as total fixed assets over total assets. Additionally, Firm age was included to control for differences in developmental stage of companies (Cucculelli and Micucci, 2008; Amran, 2012; Luan *et al*., 2018; Amore *et al*., 2021). Indeed, it was found that older firms are more likely to reach lower performance than younger firms due to rooted routines difficult

to dismantle and conservatism (Luan *et al*., 2018). This variable was computed as the natural logarithm of the number of years since the firm was founded. Lastly, three control variables accounting for management and governance characteristics were added. CEO number was computed as the number of CEO of the company, CEO age reflects the age of the CEO and in case of multiple CEOs, an average of their age was considered, finally, Family directors expresses the percentage of family directors sitting on the BoD.

In addition, in order to control for unspecified time-specific effects, meaning time-specific factors not included in the model which could have an impact on performance such as common shocks, year dummies were included in the model (Karaevli, 2007; Cucculelli and Micucci, 2008; Minichilli *et al*. 2014). Moreover, firm fixed effects were included to focus the analysis on within-firm variation of performance controlling at the same time for time-invariant firm characteristics which might have an impact on performance, such as the industry in which the company operates and the geographical location of the firm, avoiding issues related to omitted-variable bias (Karaevli, 2007; Cucculelli and Micucci, 2008; Minichilli *et al*. 2014).

Table 1 – Variables measures

	Variable	*Measurement*
Dependent Variables	ROE	Continuous Net Income/Equity
Independent Variables	Succession	Dummy 1 = years after succession; 0 = Otherwise
	Pure family	Dummy
		1 = all co-CEOs belong to the family; 0 = Otherwise
	Family BoD	Dummy
		1 = all directors belong to the family; 0 = Otherwise
	Big company	Dummy
		1 = firm revenues > 50 mln; 0 = Otherwise

segue tab. 1

Control Variables	Firm size	Continuous
		Natural logarithm of revenues
	Leverage	Continuous Debt/Total Assets
	Cash holding	Continuous
		Cash and Cash Equivalents/Total Assets
	Tangibility	Continuous
		Fixed Assets/Total Assets
	Firm age	Continuous
		Natural logarithm of years since the firm's founding
	CEO number	Continuous
		Number of CEO of the company
	CEO age	Continuous
		Age of the CEO (if a team average age of co-CEOs)
	Family directors	Continuous
		% of family directors sitting on the BoD

To test the hypotheses introduced in the previous section, difference-in-differences (DiD) models were used, estimated by means of fixed effects regression models including time-fixed effects. In the last decade, DiD has been increasingly applied in CEO succession research in family businesses (e.g. Cucculelli and Micucci, 2008; Minichilli *et al*. 2014), appearing to be an adequate method to be applied in this study. Indeed, the advantage of this type of model relies on the possibility of testing the specific effect of various succession characteristics and firm/governance characteristics (in our case the presence of only family co-CEOs or not; the presence of open or closed BoD; firm size) while controlling for the general effect of succession. In addition, employing a fixed effect model to estimate the difference-in-difference allows to control for time-invariant characteristics, and including time-fixed effects allow control for common shocks.

The present work employs two different models to test hypotheses. Model 1 includes as control group all the family firms of the AUB Observatory dataset that did not experience succession between 2012 and 2016. On the other hand, Model 2 employs as control group all the family firms of the AUB Observatory dataset that experienced an individual succession between 2012 and 2016. Both models are presented in order to provide a more solid support to test hypotheses.

According to the usual design of DiD models, the variable Succession was codified in order to identify the period pre and after succession. Indeed, Succession takes value of one for the years post-succession and a value of zero for the years pre-succession (value of zero was also attributed to all years of the control group, which is represented in the first model by firms that did not experience succession and in the second model by firms that undertook individual succession).

Subsequently, the model was extended to multiple treatments regarding the degree of family involvement in the firm, which is measured by the variables Pure family and Family BoD, and the firm size, measured by the proxy Big company. The effect of these three variables on joint leadership succession was tested by introducing an interaction term between the independent variable of interest and the variable Succession. Therefore, for example, the effect of having multiple family CEOs was encoded as an interaction term Succession*Pure family which is equal to one for all the years after succession if the firm had only family CEOs and zero for the years pre-succession, for firms with at least one non-family CEO after succession and for firms of the control group. The same approach applies to Family BoD and Big company.

4. Results

Tables 2 and 3 present means, standard deviations, and correlations among the variables included in the model. Given the fact that most of the coefficients are near the value of one, the model entails acceptable levels of correlations. This result is valid when included in the sample as control group either non-succession family firms or individual succession family firms.

Table 2 – Means, standard deviations and correlations (Model 1)

	Sample including as control group non-succession family firms														
	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1 ROE	0.0905999	0.3212163	1												
2 Succession	0.0195051	0.1382963	0.0106	1											
3 Pure_Family	0.017422	0.1308419	-0.0035	0.4627	1										
4 Family_BoD	0.7786264	0.4151845	0.0108	-0.1315	-0.0034	1									
5 Firm_Size_Dummy	0.3399823	0.4737178	0.0107	0.0231	0.0022	-0.0779	1								
6 lnFirm_Size	17.6013	0.9241877	0.0333	0.0078	-0.0034	-0.0721	0.679	1							
7 Leverage	0.2486358	0.1836945	-0.1	0.0222	0.0263	0.002	0.0428	0.0179	1						
8 Cash_Holding	0.0962488	0.1144136	0.1323	-0.0022	-0.0097	0.0164	-0.0023	0.0062	-0.444	1					
9 Asset_Tangibility	0.2103836	0.1708888	-0.0886	0.0145	0.0118	0.0285	0.0676	0.0664	0.2002	-0.2044	1				
10 lnFirm_Age	3.324325	0.6280967	-0.041	0.0068	0.0013	0.0508	0.0012	0.0459	-0.0161	-0.0128	0.1648	1			
11 CEO_Number	1.96585	1072068	0.0135	0.0543	-0.0417	0.0905	0.0253	0.0083	0.0143	-0.0048	0.0248	0.0678	1		
12 CEO_Age	58.86538	10.19327	-0.014	-0.1525	-0.0197	0.0437	0.0441	0.0541	-0.044	0.0701	0.062	0.1493	-0.0768	1	
13 Family_Directors	0.8859639	0.2403255	0.0118	-0.1574	0.0141	0.8899	-0.0673	-0.0579	-0.0002	0.0127	0.0276	0.0662	0.1759	0.0539	1

Table 3 – Means, standard deviations and correlations (Model 2)

	Sample including as control group individual succession family firms														
	Mean	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*
1 ROE	0.07892	0.5949	1												
2 Succession	0.0716	0.2580	0.0169	1											
3 Pure family	0.0632	0.2434	0.0023	0.4314	1										
4 Family BoD	0.3277	0.4694	-0.0161	0.0342	0.2409	1									
5 Big company	0.3734	0.4837	-0.0257	0.0276	-0.0096	-0.0356	1								
6 Firm size	17.6367	1.2287	-0.0175	0.0038	-0.001	-0.0113	0.6675	1							
7 Leverage	0.2459	0.1885	-0.1031	0.0444	0.0456	0.0112	0.0535	0.0746	1						
8 Cash holding	0.09128	0.1106	0.0916	0.0097	-0.0063	0.0081	-0.0189	0.0261	-0.3316	1					
9 Tangibility	0.19823	0.1733	-0.0791	0.0507	0.0473	0.0505	-0.0215	0.0219	0.2491	-0.1878	1				
10 Firm age	29.1839	17.4521	-0.0307	0.0813	0.0785	0.0061	0.1396	0.1824	0.0992	-0.0643	0.2363	1			
11 CEO number	1.0991	0.4082	0.0161	0.8737	0.3401	0.0114	0.051	0.0245	0.0142	0.031	0.0511	0.0887	1		
12 CEO age	54.9787	10.3183	-0.0241	-0.1923	0.0684	-0.0152	-0.0163	0.0098	0.0169	-0.0123	0.0598	0.0264	-0.1503	1	
13 Family directors	0.65044	0.3104	-0.0065	-0.0326	0.2169	0.7863	-0.0304	-0.0217	-0.0002	-0.0347	0.0092	0.0329	-0.0409	-0.0037	1

Firstly, the stand-alone effect of succession was tested by running a model including the variable Succession and the group of control variables together with year dummies and firm fixed effect. Table 4 shows the result of this baseline model, in particular Model 1 uses as control group family firms that did not experience succession between 2012 and 2016, while Model 2 uses as control group family firms that experienced individual succession between 2012 and 2016. Both models support hypothesis 1b while rejecting hypothesis 1a, since the coefficient of the variable Succession is positive and statistically significant (respectively $p<0.01$ and $p<0.05$) in both models. Therefore, joint leadership succession improves a firm's performance.

Table 4 – Stand-alone effect of joint leadership succession

	Model 1: Control group firms no succession	*Model 2: Control group firms individual succession*
Succession	.1499182***	.1506596**
Firm size	.0212105***	.0505744***
Leverage	-.1680961***	-0.0924813
Cash holding	.1929876***	0.08687
Tangibility	-0.0771186	-.3430409***
Firm age	-0.0355764	-0.0233242
CEO number	-0.003392	-0.0220455
CEO age	0.0015223	-0.000544
Family directors	-0.0044275	-0.0136878
Year Fixed Effects	Yes	Yes
Firm Fixed Effects	Yes	Yes
R-squared	0.0627	0.0385
Observations	15.842	4.212

* p < 0.10, ** p < 0.05, *** p < 0.01

Table 5 presents the result of the remaining models which are used to test the impact of CEO family, BoD composition and firm size on the outcome of joint leadership succession.

Table 5 – Family involvement and firm size effect on joint leadership succession

	Control group: non-succession firms			*Control group: individual succession firms*		
	Model 3: Pure Family	*Model 4: Family BoD*	*Model 5: Big company*	*Model 6: Pure Family*	*Model 7: Family BoD*	*Model 8: Big company*
Succession	.2019***	.1848***	.1875***	.2322***	.2064***	.1742***
Succession*Pure family	–.1229**			–.1422***		
Succession*Family BoD		–.0934*			–.1125***	
Succession*Big company			–.0957*			–.1039**
Firm size	.0216***	.02155***	.0211***	.0514***	.0511***	.0509***
Leverage	–.1691***	–.1683***	–.1675***	–.0951	–.0927	–.0912
Cash holding	.1934***	.1936***	.1922***	0.0881	0.0871	0.0834
Tangibility	–.0730	–.0738	–.0782	–.3307***	–.3338***	–.3458***
Firm age	–.0355859	–.0357998	–.0366	–.0266	–.0261	–.0246
CEO number	–.0047	–.0045	–.0025	–.0354	–.0317	–.0079
CEO age	0.0011	0.0012	0.0014	–.0007	–.0007	–.0005
Family directors	0.0001	0.0029	–.0038	–.0085	–.0225	–.0127
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.0624	0.0622	0.0637	0.034	0.0344	0.04
Observations	15.842	15.842	15.842	4.212	4.212	4.212

* p < 0.10, ** p < 0.05, *** p < 0.01

Hypothesis 2 states that co-CEOs teams composed by only family members negatively moderate the effect (either positive or negative) of joint leadership succession. In line with this hypothesis, the interaction *Succession*Pure family* shows a negative and statistically significant coefficient both when the control group is composed by non-succession firms ($p<0.05$), as well as when the control group is composed by individual succession firms ($p<0.01$). According to Hypothesis 3, the presence of closed BoD, meaning composed by only family members, negatively moderates the impact (either positive or negative) of joint leadership succession. This hypothesis is confirmed by both models including the two different control groups, since the interaction *Succession*Family BoD* is negative and statistically significant in both cases, with respectively $p<0.1$ when non-succession firms are taken as control group, and $p<0.05$ when individual succession firms are considered as control group. Lastly, hypothesis 4 predicts that joint leadership succession impact (either positive or negative) is negatively moderated by firm size, meaning that large size family firms undertaking joint leadership succession are expected to perform worse than small/medium size counterparts. Both the model including non-succession firms and the model including individual succession firms as control group support hypothesis 4. Indeed, the interaction *Succession*Big company* shows a negative and statistically significant coefficient ($p<0.1$ in both cases).

5. Discussion and conclusion

The literature contribution of this work is twofold. Firstly, it extends the existing literature on shared leadership by providing quantitative research investigating the impact of this model on financial performance, since the existing papers on co-leadership are only qualitative. In addition, it extends the existing family business literature regarding CEO succession because it considers a particular succession mechanism based on the implementation of co-leadership providing a quantitative perspective. Indeed, family business literature is still in its infancy when it comes to co-leadership succession models, and on top of that, research undertaken are only of qualitative nature.

In the first place, drawing on model provided by Cater, Kidwell and Camp (2016) about development of co-CEOs structures in family firms undertaking succession, the impact of this succession model on performance was investigated. Cater, Kidwell and Camp (2016) identifies a negative and a positive track that this transition can undertake, impacting either negatively or

positively firm performance. Given this mixed evidence, supported by other scholars, two divergent hypotheses were tested, arguing that this succession mechanism can either improve or worsen financial performance of family firms. The result, based on a sample of Italian family firms, support the hypothesis of an improvement of performance following shared leadership succession. This result suggests that Italian family firms applied this model responsibly, evaluating the benefits and the challenges of this complex structure, justifying its application with both solid business and family reasons, which in turn determined improved financial performance. Indeed, this model turned out to be particularly suitable to manage succession gradually and smoothly, mitigating the abrupt impact that usually characterizes individual successions, which negatively impacts financial performance.

However, the positive impact of these succession mechanisms can be sustained only if certain conditions are met. Indeed, it was found that excessive family involvement, both within the co-CEO team and on the BoD, reduces the positive effects that this succession mechanism can provide. Indeed, this thesis argues and supports with empirical evidence that excessive family involvement reduces shared leadership succession performance. This result can be interpreted considering SEW theory according to which family members pursue non-economic goals related to the protection of their Socio-Emotional Wealth. Indeed, when family involvement in the firms is not balanced by the presence of outsiders, in the form of non-family CEO and independent directors, family members fail to strike a balance between economic and non-economic goals, making the latter overcome the former. In this way, in the context of shared leadership succession, family members would overstress SEW considerations, making this succession model less effective than it could be.

On the other hand, considering firm size, this work argued that co-leadership succession mechanisms are less effective in large size firms, in which the positive effect of this model is partially offset. This result was supported empirically and can be explained considering the complexity of co-leadership itself. Indeed, co-leadership appears to be a too complex model to be implemented in large size family firms undertaking succession. In fact, the higher level of formalization and administrative rigidity of large firms prevent this succession mechanism from being successful because it does not allow for informal communication, which permits enhanced coordination levels. On the contrary, small family firms are based on informal communication and decision-making mechanisms which foster greater coordination among co-CEOs, resulting in successful generational transitions.

This research provides relevant implications for the practical implemen-

tation of shared leadership succession mechanisms. Firstly, family businesses should consider co-leadership to undertake succession processes, since it has been demonstrated to provide beneficial impacts on financial performance. However, this structure should be implemented in the presence of solid business reasons justifying the need for more than one CEO, rather than being used to avoid choosing among successors.

Additionally, for this succession mechanism to work, it is extremely important for family businesses to find a balance between economic and non-economic goals by foreseeing the inclusion of non-family members in their governance and management structure. To be successful, joint leadership structures as a succession mechanism would require the presence of independent board members as well as at least one non-family CEO.

Lastly, after considering the aforementioned conditions, this model is especially suggested to small family firms, since their informality in communication and decision-making can enhance the effectiveness of such a shared leadership succession mechanism. On the contrary, large family businesses may still consider implementing these succession mechanisms, being aware, however, that the increase in size may partly offset the performance benefits.

This research has several limitations which can represent opportunities for future research. First, the sample employed in this research is based on family firms from Italy, therefore caution should be used in generalizing the results to different countries. In addition, despite the richness of information provided by the AUB Observatory database, the number of successions considered is quite limited. The reasons are mainly related to the fact that co-leadership successions are growing in the family business sector but have not yet become established as a widespread practice, at least in the Italian context. Therefore, future research should be carried out hoping that this phenomenon will become more and more frequent in the future, also considering different contexts with respect to the Italian one. Second, the fact that many companies had to be excluded from the sample due to the lack of available data represents a further limitation of this work. Third, we tried to consider different measures of performance, but unfortunately the empirical results are not confirmed. Fourth, although the model employed control for time-invariant firm characteristics, it might be possible that there are time-variant characteristics that influence the adoption of co-CEOs succession mechanism for which adequate control was not included in the model. Finally, this model does not consider the type of co-CEO structure implemented, meaning the distribution of responsibilities among co-CEOs as well as their background. It would be interesting for future research to investigate how the impact of this succession model changes according to the distribution of tasks

and responsibilities among co-CEOs and the degree to which their backgrounds complement each other.

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