

Family control and influence on JV investment – the moderating effect of JV type and IC components

Giovanna Gavana

Department of Economics, University of Insubria, Varese, Italy, and

Pietro Gottardo and Anna Maria Moisello

Department of Economics and Management, University of Pavia, Pavia, Italy

Abstract

Purpose – This paper aims to investigate the effect of the nature of ownership and board characteristics on the investment choices in joint ventures (JVs) from the dimensional point of view, controlling for the effect of JV type and other components of intellectual capital.

Design/methodology/approach – The authors study a sample of Italian, Spanish, German and French nonfinancial listed firms over the 2010–2018 period, controlling for the fixed effects of the company's sector of operation and the year. The authors also analyze the effect of family control and influence on JV investment size, taking into consideration certain board characteristics, the type of JV, human capital efficiency, structural capital efficiency and capital employed efficiency while also controlling for a firm's profitability and size. To test the hypotheses, GLS panel data was used.

Findings – The results indicate that the size of the investment in JVs is smaller for family firms than for nonfamily businesses. The presence of CEO duality has an opposing effect on the size of the investment in joint ventures as it has a lowering effect in family businesses while it exerts an amplifier influence in nonfamily businesses. Moreover, the type of joint venture has a significant effect for family firms: the choice of a link joint venture reduces the size of the investment. The authors find that human capital efficiency increases JV investment size for all firms.

Originality/value – This study is the first to analyze the effect of the main dimension of socioemotional wealth – family control and influence – on a firm's JV investment size. It controls for the effect of JV type – link or scale – and the interplay of the other IC components.

Keywords Joint venture, Family firms, Link JVs, Scale JVs, Board characteristics, Intellectual capital

Paper type Research paper

1. Introduction

Family companies are a leading organizational form in economies across the world. According to the Family Firms' Institute, two-thirds of all companies around the world are family-managed and more than 70% of global GDP annually is produced by family businesses that provide 50–80% of the world's employment [1].

Engaging in new ventures is a priority for family companies trying to survive, achieve profitability and growth; a connection with other companies would allow them to gain the knowledge necessary to stimulate entrepreneurship and avoid the effect of conservatism that can threaten family firms' financial sustainability (Zahra, 2010; Basly, 2007). Family firms are characterized by a unique social capital (Arregle *et al.*, 2007), relevant in leveraging the firm's absorptive capacity to transform and use external knowledge (Andersén, 2015). Moreover, there is evidence that alliances and partnerships, such as joint ventures (JVs), play a relevant



role in forming company legitimacy and their sustainable technologies (Kishna *et al.*, 2017; Muñoz de Prat *et al.*, 2020).

JV literature has addressed several topics such as JV performance, innovation and internationalization. A stream of this literature has taken into account the effect of the nature of a firm's ownership on JV investment choices, mostly focusing on the internationalization perspective and entry mode choices (Sestu and Majocchi, 2020; Debellis *et al.*, 2021; Scholes *et al.*, 2016; Kuo *et al.*, 2012; Claver *et al.*, 2007), and innovation (Feranita *et al.*, 2017). These exploratory studies have analyzed the behavior of family businesses by comparing them with nonfamily businesses as homogeneous groups. Family firms are not a homogeneous group, and their heterogeneity depends not only on companies' ownership structure but also on the degree and kind of influence the family exerts on a company's strategic decisions (Chrisman *et al.*, 2015; Calabrò *et al.*, 2019). The effect of ownership structure heterogeneity on JV has been analyzed by literature (Pongelli *et al.*, 2016), but, to the best of our knowledge, literature has not yet investigated family firms' investment in JVs through the lens of the second type of heterogeneity, a relevant gap that deserves to be addressed.

Moreover, literature has pointed out the influence of the unique bundle of resources generated by the interaction of family and business (Habbershon and Williams, 1999) on a firm's intellectual capital (Cabrera-Suárez *et al.*, 2001). As a matter of fact, family firms rely on specific human capital intangibles provided by the family's involvement in the firm and related to the founder's personality, the values shared by family members or the knowledge acquired from previous generations (Sirmon and Hitt, 2003; Claver-Cortés *et al.*, 2015). The family's moderating role on the relationship between IC and innovation (Diéguez-Soto *et al.*, 2016), its effect on relational capability development (McGrath and O'Toole, 2018), as well as family firms' unique characteristics in creating and governing joint ventures (Debellis *et al.*, 2021) have been highlighted by the literature.

JVs are the expression of a peculiar component of a company's intellectual capital (IC), i.e. its relational capital that represents the part of knowledge embedded in relationships with external stakeholders (Sharabati *et al.*, 2010; Zambon, 2002). According to the type of alliance – link or scale – partners contribute different, or similar, capabilities (Hennart, 1988) facing different risks and producing different outcomes (Dussauge *et al.*, 2000, 2004; Khamseh and Jolly, 2014).

Recent research has also highlighted the importance of pointing out the possible interactions and synergies between the different components of IC (Crupi *et al.*, 2020): they influence each other and certain components of IC can benefit from the improvement of other components (Johnson, 1999; Reed *et al.*, 2006). However, to the best of our knowledge, the literature has not yet analyzed the effect of IC and JV type in family business investment in joint ventures.

This paper addresses the following research question: *Does family control and type of influence affect investment size in JVs? If so, does JV type and the interplay of other IC components moderate this effect?*

We investigate how different types of family influence (CEO, CEO duality, number of family members on the board) affect firms' investment size in JVs, taking into account the effect of IC and JV type. The extent to which family members occupy board positions is a major source of heterogeneity in family businesses (Nordqvist *et al.*, 2014; Diéguez-Soto and Martínez-Romero, 2016) and the characteristics and background of board members affect a firm's strategic choices (Hambrick, 2007; Mueller and Barker, 1997; Sciascia *et al.*, 2013). We address the research question by basing it on the socioemotional wealth (SEW) concept. This refers to the stock of affect-related value that a family derives from its controlling position in a firm (Gomez-Mejia *et al.*, 2007; Berrone *et al.*, 2012). It shapes firms' decisions (Gomez-Mejia *et al.*, 2011) and may affect investment in JVs in different ways.

We analyze a sample of Italian, Spanish, German and French nonfinancial listed firms over the period 2010–2018. The sample is of particular interest as these economies are widely

characterized by the presence of family businesses that have long-lasting family control (Franks *et al.*, 2012).

Our results point out that family control and influence negatively affect JV investment size; the presence of CEO duality has an opposing effect on the size of the investment in joint ventures as it has a decreasing effect in family businesses while it exerts an amplifier influence in nonfamily businesses. The type of joint venture has a significant effect only for family businesses, whilst human capital efficiency is significant only at the level of all firms.

This study contributes to the existing research on joint ventures by analyzing the effect of JV type on family and nonfamily firms' joint-controlled investments and it adds to intellectual capital literature by also investigating the efficiency by which IC components affect the size of the investment.

Our research contributes to family-firm literature, in particular to the stream of research on the determinants of family-firm investments pointing out the effect of family influence heterogeneity, in terms of board characteristics, on JV investments.

The paper is organized as follows: Section 2 provides the theoretical framework, the literature review and the consequent hypotheses; Section 3 describes the data and methodology; Section 4 presents the results; Section 5 provides the discussion and Section 6 concludes by pointing out the contributions, implications and the limitations of the study as well as including suggestions for future research.

2. Theoretical framework, literature review and hypotheses

2.1 Socioemotional wealth and its dimensions

We address our research question through the lens of the socioemotional wealth (SEW) concept. Based on the behavioral agency model, developed in order to explain executives' risk-taking behavior (Wiseman and Gomez-Mejia, 1998). Gomez-Mejia *et al.* (2007) argue that family businesses' risk-taking behavior is determined by the effect of their decisions on the SEW and that this is why they are not always risk-averse. Further, it is also why their risk preferences are not constant (Chrisman and Patel, 2012; Kraiczy *et al.*, 2015). The SEW refers to the stock of affect-related value that a family derives from its controlling position in a firm (Gomez-Mejia *et al.*, 2007, 2011; Berrone *et al.*, 2012). Different nonfinancial aspects of the business that satisfy the affective needs of the controlling family members converge in the concept of socioemotional wealth. Five different dimensions have been categorized as the main nonfinancial utilities: family control and influence on the business, identification of family members with the firm, binding social ties, emotional attachment of family members and the renewal of family bonds to the firm through dynastic succession (Berrone *et al.*, 2012). These dimensions may exert different and contrasting effects on a firm's propensity to invest in joint-controlled ventures.

Owning family members derive a strong emotional return from family influence and control over the business as they are deeply attached to it (Gomez-Mejia *et al.*, 2007; Zellweger and Astrachan, 2008). The level of proprietary control over the company is itself a source of a strong emotional return for the family and provides it with power and legitimacy in supporting decisions aimed at increasing the nonfinancial returns it derives from the company (Zellweger *et al.*, 2012). The firm is perceived by the owning family as an extension of the family itself because of the tight links and strong sense of identification with the firm (Berrone *et al.*, 2012; Basly and Saunier, 2020). As a matter of fact, there is evidence that the desire to maintain company control firmly in its hands implies that family businesses tend to be more levered than nonfamily firms (Gottardo and Moisello, 2018; Bacci *et al.*, 2018) and, consistently, the desire to preserve the sense of identification leads family businesses to avoid opening up their equity to nonfamily investors (Romano *et al.*, 2001). Therefore, the relevance of control and sense of identification for family firms might negatively affect their desire to

participate in joint-control ventures in which they would have to share control of the business with nonfamily members.

Family companies are particularly prone to developing social bonds which provide family members with a strong sense of legacy and relevant emotional returns (Berrone *et al.*, 2012; Gomez-Mejia *et al.*, 2011; Astrachan and Jaskiewicz, 2008). Family firms develop strong ties with employees, who become part of a sort of extended family, as well as with suppliers, with the community in which the company operates and with its stakeholders at large (Berrone *et al.*, 2010). Owing to the ability to create social bonds, strictly related to the pursuit of nonfinancial objectives, family companies enjoy a higher reputation than nonfamily firms (Beck and Prügl, 2018; Gavana *et al.*, 2018; Binz *et al.*, 2013). The relational ability and reputation may help the selection process of the co-venturers and facilitate family firms' joint-venture investments.

The SEW dimension related to the *emotional* attachment of family members highlights the role of emotions in family-business management owing to the mix of shared experiences and events that affect current activities and relationships within a family company (Berrone *et al.*, 2012). Emotions and the relevance of family ties can lead to the selection of family members with limited skills and experience to act as managers (Jaskiewicz *et al.*, 2013) and, therefore, if the company wants to explore new markets, the JV may limit the risks. So, the facilitation of the internationalization processes might be a stimulus for investment in JVs. On the other hand, the presence of family ties and the desire to protect the SEW may lead to executive entrenchment (Gomez-Mejia *et al.*, 2001; Randolph *et al.*, 2018) and induce family members to pursue private benefits at the expense of the firm's stakeholders (Kellermanns *et al.*, 2012). Literature points out that family firms are more prone to entrenchment than their nonfamily counterparts and that family owners are abler than managers in widely held corporations to efficiently derive private benefits from the firm (Sharma, 2004; Claessens *et al.*, 2002).

These negative aspects of family firms' governance and behavior may become an obstacle in the search for JV partners. Potential partners may be reluctant to enter into a collaborative relationship with a family business, fearing the negative effects of weak governance or family-centric behavior that could harm them. Families perceive the firm they own as a long-term investment to be passed on to their heirs in order to renew the family bonds to the business and to meet an emotional need to perpetuate the family dynasty (Berrone *et al.*, 2010, 2012). For this reason, they receive emotional returns in the present as well as future benefits of control (Zellweger *et al.*, 2012). The preservation of socioemotional wealth affects family companies' risk-taking decision-making in different ways and this is why family businesses are risk-averse and risk-willing at the same time (Gomez-Mejia *et al.*, 2007). There is evidence that family firms are prone to facing the risk of financial performance (Gomez-Mejia *et al.*, 2007) and the risks related to debt financing in order to preserve family control over the business (Gottardo and Moisello, 2018). On the other hand, they avoid entrepreneurial risk and high-outcome variance ventures in order to protect the business' survival (Naldi *et al.*, 2007). Consequently, the desire to renew the family bonds to the firm through dynastic succession produces a long-term time horizon and risk aversion (Berrone *et al.*, 2012; Zellweger *et al.*, 2012) that may affect investments in joint ventures.

The desire to protect the SEW is stronger when the family exerts its influence directly through having a family CEO (Huybrechts *et al.*, 2013). Nevertheless, family firms differ in the extent to which they aim to preserve the SEW depending on the presence of family members on the board (Gottardo and Moisello, 2018), a major source of heterogeneity among family companies (Diéguez-Soto and Martínez-Romero, 2019). Family membership represents a "fault line" separating family members from nonfamily members (Minichilli *et al.*, 2010; Sciascia *et al.*, 2013). They might pursue different goals and the dynamics between these groups, as well as the level of family involvement, affect a company's innovation and

internationalization strategies (Sciascia *et al.*, 2013; Kraiczy *et al.*, 2015; Diéguez-Soto and Martínez-Romero, 2019).

2.2 Ownership, board characteristics and joint ventures

The nature of a firm, notably family business or nonfamily business, influences the propensity to engage in joint ventures when the company chooses to internationalize, or when it pursues innovation goals.

Family firms are characterized by an ability to develop a relevant organizational social capital (Arregle *et al.*, 2007); this results from the firm's interaction and relationships with a wide variety of external stakeholders (Zhara, 2010). Family firms may exploit their unique social capital to identify partners and develop joint ventures in order to innovate (Zhara, 2010). For family firms, collaborative innovation, including joint ventures, may be an effective solution to overcome resource constraints and gain access to partner knowledge (Feranita *et al.*, 2017). On the other hand, the concern to protect the SEW and, in particular, the desire to preserve control over the business, may lower the propensity for family firms to collaborate with external parties (Gomez Mejia *et al.*, 2007; Le Breton-Miller and Miller, 2009). Family firms worry that entering alliances entails a risk of leaking crucial information to the partners and losing a competitive advantage (Zhara, 2005), especially regarding technological collaborations (Nieto *et al.*, 2015). Analyzing new product development process, Cassia *et al.* (2012) find that family firms tend to collaborate with those partners who are not considered as a threat to the company. In fact, to limit the loss of SEW, when family firms participate in innovation alliances, they prefer partnerships with universities, suppliers and clients rather than with competitors (De Massis *et al.*, 2015). Concerning internationalization processes, the characteristics of family firms may have opposite effects on the formation of International Joint Ventures (IJVs). Given the risk aversion of family firms, a joint venture is a viable means to limit the risks stemming from international inexperience. In family firms, managers are often hired not for their capabilities but because they are members of the family (Chrisman *et al.*, 2014) and this fact may hinder the internationalization process (Fernández and Nieto, 2006; Graves and Thomas, 2006). Therefore, inexperienced family firms, compared to inexperienced nonfamily firms, are more likely to choose joint ventures than wholly-owned subsidiaries (Kuo *et al.*, 2012). On the other hand, the tendency of family firms to remain independent from external parties and keep control over the business leads them to prefer wholly-owned subsidiaries to joint ventures (Abdellatif *et al.*, 2010), in particular when the governance quality of the host country is high, diminishing the need to rely on local partners (Chang *et al.*, 2014). Moreover, the strong attachment of family members to the firm negatively affects the strategic sensitivity of family businesses which can lose opportunities to acquire new knowledge from strategic alliances. In such a situation, hiring highly skilled external directors, whose values are not in contrast with those of family members, may help the family to understand that engaging in an IJV may be an opportunity to survive and pass the firm on to future generations (Debellis *et al.*, 2021).

Research has demonstrated that the means of entering foreign markets is affected by the ownership characteristics of the local firm (Sestu and Majocchi, 2020). In fact, family firms have a specific asset which is not tradable on the market: "familiness." When the investing firm is a family firm and the local firm is a nonfamily one, a full acquisition of the local firm is more likely. In this case, a wholly-owned subsidiary allows the investing firm to maintain the family's control and combine its family-specific assets with those of the local firm. On the contrary, when the investing firm and the local firm are both family firms, both their family-specific assets cannot be separated from the firm. In this case, a joint venture is more likely because it allows both parties to maintain their respective family status and the profits of the joint venture will remunerate the co-venturers for the assets transferred.

Prior studies have highlighted the heterogeneity of family firms, demonstrating how different types of family ownership structure differently influence foreign market entry mode decisions. This is due to the greater, or lesser, importance placed on two main SEW priorities: the long-term survival of the firm and the maintenance of family control (Pongelli *et al.*, 2016). When the level of founder ownership is high, noncooperative entry modes are preferred due to the founder being reluctant to share control and business decisions with external parties. On the contrary, when the ownership structure includes families other than the nuclear family, family firms are more prone to engage in joint ventures rather than rely on wholly owned subsidiaries when they choose equity entry modes.

There is no evidence related to the effect on JV investments of family members on the board, but empirical literature reports that the level of family involvement in management and on the board, respectively, moderate a firm's innovation and internationalization propensity (Diéguez-Soto and Martínez-Romero, 2019; Sciascia *et al.*, 2013).

Based on the theoretical framework and the literary review, we posit the following hypotheses:

H1a. Family ownership control negatively affects JV investment size.

H1b. Family involvement on the board amplifies the effect of family control on JV investment.

2.3 Link and scale JVs

Family firms may present a different propensity to engage in scale joint ventures rather than in link joint ventures. A scale joint venture is created to achieve economies of scale. The co-venturers enter together a contiguous stage of their production or distribution cycle or a new market, bringing similar skills and resources to the joint project. In a link joint venture, the co-venturers pursue different objectives and contribute distinctive and complementary skills and resources to the joint project (Hennart, 1988). Since co-venturers are also competitors, a link joint venture gives them the opportunity to acquire partner knowledge and use it to gain a competitive advantage (Grant and Baden-Fuller, 2004; Baughn *et al.*, 1997). Therefore, asymmetric outcomes are more likely to occur in link joint ventures than in scale joint ventures (Dussage *et al.*, 2004). Confirming this risk, the takeover of the joint venture by a partner occurs earlier and more often for link joint ventures than for scale joint ventures (Dussage *et al.*, 2000). As a consequence, given family firms' risk aversion and the differences between link and scale joint ventures and the implications in terms of risk, family businesses might be less prone to invest in link joint ventures than their nonfamily counterparts. H2 is formulated as follows:

H2. The type of JV investment moderates the effect of family control on JV investment.

2.4 Intellectual capital in family firms

Literature has considered how the nature of the ultimate controlling owner can influence the quality and the development of IC. In this vein, research has highlighted that family firms can rely on peculiar intangible assets that are not accessible to their nonfamily counterparts. Treviño-Rodríguez and Bontis (2007) have coined the term *intellectual capital in family businesses* (ICFB), defined as the set of quantitative and qualitative intangible assets that influence a company's performance. In particular, qualitative intangible assets comprise: the founder and/or family's vision, values, energy, social networks, cohesiveness and commitment transmitted to the employees; the processes, procedures and policies of the organization and, finally, the network of the firms that allows the relationship between the different parts of the firm to be maintained and developed. The identification of intangibles

inherent to family firms has been addressed by [Claver-Cortés et al. \(2013\)](#). They have provided an intellectual capital model which lists the main IC elements specific to family firms, grouped into the three IC categories: human capital, structural capital and relational capital. The literature highlights that human capital represents the most important intangible of family firms ([Sirmon and Hitt, 2003](#)). Family firms are characterized by long-term relationships with employees that foster its organizational social capital ([Leana and Van Buren, 1999](#)). [Claver-Cortés et al. \(2015\)](#) identify ten human capital intangibles that characterize family firms and find sixty indicators useful to managers in order to measure such intangibles.

Given the peculiarities of family firms, research has also analyzed how the degree of “familiness” ([Habbershon and Williams, 1999](#)) affects IC efficiency. By using family ownership and the proportion of family directors on the board to approximate the degree of familiness, [Greco et al. \(2014\)](#) find that, compared to their nonfamily counterparts, family firms are characterized by higher average VAICTM. Also, the involvement of family members from later generations in the management of the company, as well as the presence of a family CEO, positively affects IC performance in family firms ([Ginesti and Ossorio, 2020](#)).

Research has investigated how human, relational and marketing capital affect the innovation capacity of family firms relative to their nonfamily counterparts. The findings suggest a high innovation capacity of family firms because this type of company, compared to nonfamily businesses, shows higher average values for qualified employees and employees engaged in R&D activity (human capital) and outperform nonfamily businesses regarding cooperation agreements (social capital) ([Bresciani et al., 2013](#); [Thrassou et al., 2018](#)).

Based on the above discussion we posit the following hypothesis:

H3. Intellectual capital efficiency moderates the effect of family control on JV investment.

3. Data and methodology

3.1 Data

The study uses data from Italian, Spanish, German and French stock markets for the years 2010–2018 to investigate how family involvement in the firm affects its investment size in joint ventures as well as how other components of a firm’s intellectual capital (IC) are related to investments in joint ventures (JVs). Italy, Spain, Germany and France are civil-law countries with similar legal settings, financial market level of development, they are characterized by the prevalence of closely held companies ([La Porta et al., 1999](#); [Edwards and Fischer, 1994](#); [Barca, 1995](#)) and by the presence of family businesses that have long-lasting family control ([Franks et al., 2012](#); [La Porta et al., 1999](#); [Faccio and Lang, 2002](#)).

From the accounting point of view, EU-listed companies adopt the same set of standards for the preparation of their financial statements.

For our empirical investigation, a search was made on the whole population of listed firms in the four countries to identify those with interests in joint ventures in each year from 2010 to 2018. To make up the sample of firms, we relied on JV information provided in the consolidated financial statements downloaded from the firm’s web site in the Investor Relation section.

The final sample is composed of all nonfinancial firms with JVs detected in the population of these countries’ listed firms. Once companies with missing financial data and missing information on JV type were removed, we had, on average, 132 firms for each year, and we have 855 firm-year observations. We hand-collected the data on joint venture assets from the notes to the co-venturers’ consolidated financial statements. All financial statement information and market data for the co-venturers was collected from Orbis, the global Bureau van Dijk database. Ownership data and Board attributes were reconstructed based

on the information available on the Orbis database, on the Chamber of Commerce register and on companies' websites.

We defined a family firm as one where a family owns at least 20% of common shares (Villalonga and Amit, 2010).

3.2 Methods

Figure 1 presents the theoretical framework and the research hypotheses developed in this study.

In order to investigate the effect of family involvement and the moderating role of other components of intellectual capital on JV size, we estimated the following regression model:

$$\begin{aligned} \text{SizeJV}_{it} = & \alpha_0 + \beta_1 \text{Ceo} - \text{D} + \beta_2 \text{W} - \text{Board} + \beta_3 \text{F} - \text{Ceo} + \beta_4 \text{F} - \text{Board} + \beta_5 \text{HCE} \\ & + \beta_6 \text{SCE} + \beta_7 \text{CEE} + \beta_8 \text{LinkJV} + \beta_9 \text{LinkJV} \times \text{F} - \text{Ceo} + \beta_{10} \text{Size} + \beta_{11} \text{Roa} \\ & + \beta_{12} \text{Extra} - \text{EU Op} + \sum_{j=1}^J \gamma_j I_{j,it} + \sum_{t=1}^T \delta_t D_t \end{aligned} \quad (1)$$

We estimated model (1) using a GLS panel-data approach with standard errors adjusted for correlation within a cluster, assuming that standard errors are clustered by firm. A panel-data approach uses efficiently the cross-section and time-series data, increasing the parameter's reliability and also reducing the likelihood of multicollinearity problems. To control for industry and year fixed effects, we included dummy variables in the model. $I_{j,i,t}$ is a dummy variable that takes the value of 1 if the co-venturer i is from industry j and 0 otherwise, to control for differences across industries; D_t is a dummy variable that takes the value of 1 in year t and 0 otherwise, to allow for differences in the intercept term over time.

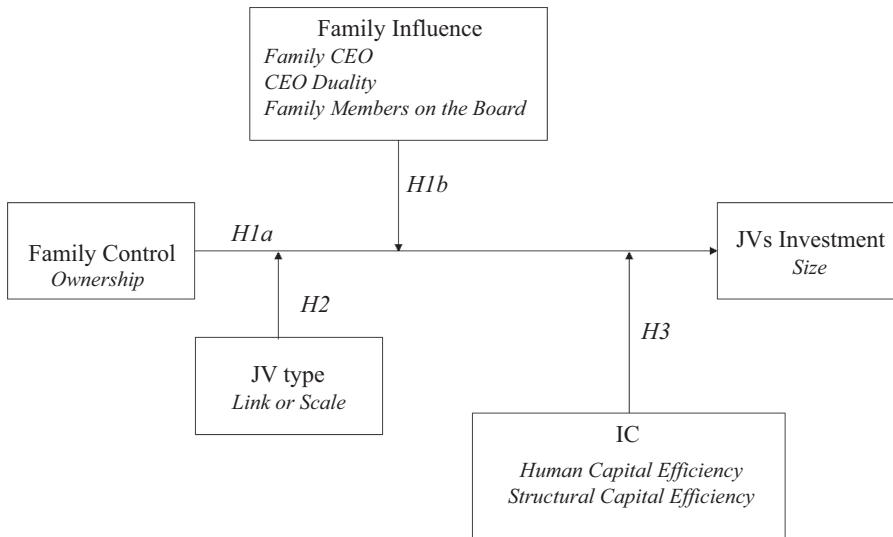


Figure 1.
The research model

3.3 Variables

The dependent variable is the size of investment in JV in log terms, measured as the sum of the assets of a firm’s JVs (based on the firm’s share).

The explanatory and control variables are CEO-D, W-Board, F-CEO, F-Board, HCE, SCE, CEE, Link JV, Size, Roa, Extra-EU Op, year and industry dummies (Table 1).

CEO duality is a dummy variable that takes the value of 1 if the CEO is also the chairperson of the board of directors (Huybrechts *et al.*, 2013). Woman on board is the weight (per cent) of women that sit on the board of directors (Cruz *et al.*, 2019; Nadeem *et al.*, 2017).

Variable	Description	Measurement	Data source
Dependent variable	Joint venture size	Natural logarithm of the sum of the assets of a firm’s JVs (based on the firm’s share)	Consolidated financial statements
CEO-D	CEO duality	Dummy variable that takes the value of 1 if the CEO is also the chairperson of the board of directors (Huybrechts <i>et al.</i> , 2013)	Orbis
W-board	Women on the board	Weight (%) of women that sit on the board of directors (Cruz <i>et al.</i> , 2019; Nadeem <i>et al.</i> , 2017)	Orbis
F-CEO	Family CEO	Dummy variable that takes the value of 1 if the CEO is a member of the controlling family (Muñoz-Bullon <i>et al.</i> , 2018; Ginesti and Ossorio, 2020)	Orbis, companies websites
F-BOARD	Family members on the board	Weight (%) of family members that sit on the board of directors (Sciascia <i>et al.</i> , 2013; Greco <i>et al.</i> , 2014)	Orbis, companies websites
CEE	Capital employed efficiency	Value added scaled by book value of net assets (Pulic, 2004)	Orbis
HCE	Human capital efficiency	Value added scaled by total salary and wage duties (Pulic, 2004)	Orbis
SCE	Structural capital efficiency	Difference between value added and salary and wages scaled by the value added (Pulic, 2004)	Orbis
Link JV	Link joint venture	Dummy variable that takes the value of 1 when the majority of joint ventures of a firm are link, otherwise the dummy takes the value of 0 (Laurenço and Curto, 2010)	Consolidated financial statements, JV and co-venturers web sites
Link JV* F-CEO	Cross-product term	Link joint venture dummy × family CEO dummy	
Firm size	Assets size	Natural logarithm of total assets (Muñoz-Bullon <i>et al.</i> , 2018; Ginesti and Ossorio, 2020)	Orbis
ROA	Return on asset	Ratio of operating income to beginning of reporting period total assets (Zhara, 2005; Ginesti and Ossorio, 2020)	Orbis
EXTRA UE OP	Extra European Union operativity dummy	Dummy variable that takes the value of 1 when a firm operates in extra European Union countries, otherwise it takes the value of 0	Orbis
Year	Year dummies	Set of dummy variables to control for differences across time	Orbis
Industry	Industry dummies	Set of dummy variables to control for differences across industries	Orbis

Table 1.
Description of
variables

Family CEO (F-CEO) is a dummy that takes the value of 1 if the CEO is a member of a family that owns at least 20% of the firm's common shares (Muñoz-Bullon *et al.*, 2018; Ginesti and Ossorio, 2020). Family on board (F-Board) is the weight (per cent) of family members who sit on the board (Sciascia *et al.*, 2013; Greco *et al.*, 2014).

Firm size (Size) is measured as the logarithm of assets (Muñoz-Bullon *et al.*, 2018; Ginesti and Ossorio, 2020). Firms' profitability is proxied by Roa, the ratio of operating income to total assets (Zhara, 2005; Ginesti and Ossorio, 2020). Extra-EU Op is a dummy variable that takes the value of 1 when a firm operates in extra-European Union countries, otherwise it takes the value of 0.

To measure the efficiency of IC components, we use the VAIC methodology developed by Pulic (2004). In Pulic's model, HCE is a proxy for the efficiency of human capital. It is calculated as VA/HC, i.e. value added scaled by total salary and wage duties for the company. Value added is given by $VA = OUT - IN$ where OUT = total sales and IN = cost of bought in materials, components and services.

Structural capital SC is measured as $SC = VA - HC$, and structural capital efficiency SCE is given by $SCE = SC/VA$. Intellectual capital efficiency is then given by $ICE = HCE + SCE$.

Pulic (2004) proposes that the efficiency of capital employed be taken into account as IC cannot create value added on its own: $CEE = VA/CE$ where CE is the book value of net assets, so that $VAIC = ICE + CEE$ is a measure of a firm's overall efficiency. Accordingly, we use CEE as a control variable. Since data are obtained from audited financial statements rather than being subjective evaluations, such as questionnaires, VAIC methodology provides a standardized and consistent measure (Shiu, 2006). Iazzolino and Laise (2013) argue that the VAIC approach does not contravene any fundamental accounting principles. In Pulic's work, human capital is defined not as the actual skills, capabilities, etc., of the employees but the amount of investment in employees as a return of the set of employee characteristics and SC is defined not as a set of intangible assets but as the part of VA created by a set of intangible asset characteristics. So, once the concepts are properly comprehended, the VAIC approach "has its own logical coherence" (Iazzolino and Laise, 2013, p. 552).

In order to classify a JV as "link," we followed Laurencio and Curto's methodology. We identified the JVs for each venturer from the notes in the consolidated financial statements. We then collected information about each JV's business, as well as the venturers' business, in order to analyze and draw conclusions about the role of each venturer in the JV. We looked for information about the JV's business and venturers' business on the JV's website as well as on the venturers' websites. When the venturers undertake complementary businesses in different industries, we classified the JV as a link venture, and when the venturers operate in a similar business, the JV was classified as a scale venture. As a co-venturer may participate in more than one JV, in line with Laurencio and Curto (2010), we coded the co-venturer as "link" when the majority (in number) of joint ventures are link. Link JV is a dummy that takes the value of 1 when the majority (in number) of joint ventures of a firm are link, otherwise the dummy takes the value of 0.

4. Results

We report in Table 2 the breakdown of our data for family and nonfamily firms for the period 2010–2018, showing the mean and standard deviations of the dependent and independent variables. We also present the *t*-statistics and their *p*-values to verify the differences between family and nonfamily firms. There were 540 firm-year observations for nonfamily firms and 315 firm-year observations for family firms. Joint venture size is lower for family businesses and the *t*-statistics indicate that the difference is significant at 1%. Consistently with literature (Cheung *et al.*, 2005; Chen *et al.*, 2005; Lam and Lee, 2008; Bjuggren *et al.*, 2018), CEO

Table 2.
Descriptive statistics

	All firms	Family (F)	Nonfamily (NF)	t-test
JV size	11.06 (3.26)	10.62 (3.28)	11.33 (3.23)	3.46 ***
CEO-D	48.06%	54.79%	43.83%	−3.49***
W-board (%)	27.11 (13.40)	28.7 (11.8)	26.1 (3.07)	−2.95***
F-CEO	38.51%	58.48%	–	–
F-BOARD (%)	7.29 (11.73)	17.91(12.32)	–	–
CEE	1.01 (3.49)	0.89 (0.97)	1.08 (4.33)	0.81
HCE	3.36 (8.36)	4.32 (13.00)	2.79 (3.37)	−2.66***
SCE	0.44 (0.42)	0.42 (0.54)	0.46 (0.34)	1.36
Link JV	39.93%	40.97%	34.47%	−2.10**
Size	14.98 (2.14)	14.93 (2.03)	15.02 (2.21)	0.77
ROA	3.73% (9.81%)	3.78% (8.84%)	3.69% (10.40%)	−0.14
EXTRA UE OP	29.23%	28.50%	29.79%	0.41

Note(s): All variables were defined in Table 1.***Indicate significance at the 1% level; **Indicate significance at the 5% level; * Indicate significance at the 10% level

duality and the percentage of women on the board, as well as human capital efficiency, are significantly different at the 1% significance level between the two samples while there is evidence of difference at the 5% level for the proportion of link-type joint ventures.

Table 3 gives the correlation coefficients for the variables used in the regression models for the full sample. The analysis indicates that JV size is negatively and significantly correlated with family CEO, the percentage of family members on the board and Link JV type. The sample presents a positive and highly significant correlation between CEO duality and family CEO, as the overlapping position of CEO and Chair of the board of directors is held by a family member in 82.93% of cases in the family firms subsample.

Table 4 presents the generalized least squares (GLS) panel model results, based on the model in Equation (1).

The introduction of family-specific variables and the interaction term confirmed the results obtained for the full sample and the nonfamily subsample. CEO duality always presents a significant negative effect on JV size for family firms whilst it exerts a significant positive effect for nonfamily companies. The percentage of women on the board increases JV size; the effect is significant for all firms and nonfamily firms but never for family businesses. Conversely, Link JV always lowers JV size, but the effect is significant only for family firms. Structural capital efficiency always presents a negative not significant effect on the dependent variable. Human capital efficiency significantly increases JV size only for all firms.

As we have a panel longitudinal dataset, we estimated Equation (1) by calculating clustered standard errors to account for the firm-fixed effects. This procedure gives unbiased standard errors as long as the fixed effects (time and industry) are negligible.

The simultaneity of JV size and VAIC components, and the omission of relevant variables, may also result in endogeneity problems. The direction of causality can be reverse or run both ways. To address these concerns, several approaches can be used: fixed effects, control variables, lagged variables and generalized method of moments (Li, 2016). Following Li (2016), we address these problems with two methods. The first method was to cluster for firm dimension and account for the time and industry-fixed effects with dummy variables. This method tries to control for some of the unobservable determinants of JV size to mitigate the omitted variables problem. The second method was to analyze the relationship between VAIC components on subsequent JV size. The panel GLS regressed JV size in year (*t*) on CEE, HCE and SCE in year (*t*−1).

	JV size	Size	Roa	CEO-D	W-board	F-CEO	FBoard	CEE	HCE	SCE	Link JV
Size	0.33***										
ROA	0.06**	0.17***									
CEO-D	0.02	0.01	-0.09***								
W-board	0.22***	0.20***	0.02	0.01							
F-CEO	-0.21***	-0.05	-0.06*	0.13***	-0.09***						
F-BOARD	-0.14***	0.03	0.08***	0.19***	-0.09***	0.37***					
CEE	-0.02	0.01	0.04	0.06*	-0.04	0.00	0.06*				
HCE	0.04	0.04	0.08**	-0.13***	-0.08**	-0.09***	0.03	-0.05			
SCE	0.05	0.20***	0.30***	-0.12***	-0.05	-0.13***	0.06*	-0.05	0.27***		
Link JV	-0.06**	0.06**	0.04	0.06*	0.01	0.08**	0.11***	-0.03	-0.07**	0.05	
EXTRA UE OP	0.13***	0.19***	0.08***	0.26***	0.19***	0.05*	0.14***	0.05	-0.05	-0.01	0.06*

Note(s): All variables were defined in Table 1.***Indicate significance at the 1% level, **Indicate significance at the 5% level; *Indicate significance at the 10% level

Family control
and influence
on JV
investment

Table 3.
Correlations

Table 4.
GLS panel regression
results

	All firms	Family-1	Nonfamily-1	Family-2	Family-3
Intercept	4.48 (2.26)**	4.66 (1.75)*	2.61 (1.35)	4.68 (1.77)*	5.02 (1.94)*
CEO-D	0.33 (0.75)	−2.51 (−3.33)***	1.54 (3.10)***	−2.26 (−2.50)**	−2.22 (−2.58)**
W-board	0.20 (2.67)***	0.20 (1.27)	0.15 (1.95)*	0.24 (1.44)	0.20 (1.20)
F-CEO	—	—	—	−0.69 (−0.80)	−1.43 (−1.44)
F-	—	—	—	−1.40 (0.50)	0.32 (0.12)
BOARD					
CEE	−0.02 (−1.44)	0.52 (2.12)**	−0.02 (−2.19)**	0.58 (2.04)**	0.50 (1.72)*
HCE	0.04 (4.93)***	0.00 (0.31)	0.02 (0.35)	0.00 (0.20)	0.00 (0.00)
SCE	−0.21 (−0.76)	−0.36 (−1.38)	−0.02 (−0.03)	−0.34 (−1.26)	−0.25 (−1.06)
Link JV	−0.70 (−1.52)	−3.06 (−2.87)***	−0.34 (−0.59)	−2.88 (−2.96)***	−4.02 (−3.44)***
Link JV*	—	—	—	—	1.92 (1.39)
F-CEO					
Firm size	0.44 (3.72)***	0.50 (2.78)***	0.50 (4.06)***	0.50 (2.66)***	0.50 (2.68)***
ROA	−1.80 (−0.57)	0.79 (0.19)	1.10 (0.25)	−0.29 (−0.08)	−1.04 (−0.30)
EXTRA	0.59 (1.30)	1.98 (1.88)*	0.53 (0.95)	1.84 (1.90)*	2.06 (2.03)**
UE OP					
Year	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes
obs	855	315	540	315	315
R ²	0.30	0.43	0.45	0.44	0.45

Note(s): All variables were defined in [Table 1](#).***Indicate significance at the 1% level; **Indicate significance at the 5% level; *Indicate significance at the 10% level

[Table 5](#) presents the results using the second method, lagging the CEE, HCE and SCE independent variables and controlling for the year and industrial sector fixed effects.

Both methods give qualitatively similar results in terms of explicative power and significance of the independent variables.

The results of the hypotheses testing are displayed in [Table 6](#).

5. Discussion

5.1 Family control

Our results show that the overall size of investment in JVs for family businesses is significantly smaller than for nonfamily businesses. This is in accordance with [H1a](#) and supports the view that family firms attribute a fundamental value to family control in order to preserve socioemotional wealth, that is the system of nonfinancial returns that the family derives from the business ([Berrone et al., 2012](#); [Gomez-Mejia et al., 2011](#)). This result is consistent with empirical studies reporting that family firms are not prone to expanding through cooperative modes, as they are not inclined to share business control and management with nonfamily members ([Gomez-Mejia et al., 2007, 2011](#); [Yamanoi and Asaba, 2018](#)), as well as, in forming innovation alliances, they are concerned with the preservation of their monitoring power ([De Massis et al., 2015](#); [Nieto et al., 2015](#)). This result empirically supports the theoretical contribution to family firms' international JVs of [Debellis et al. \(2021\)](#) as they argue that family firms, in spite of their higher ability to establish and govern JVs, have a lower willingness to form them.

5.2 Family influence and board characteristics

According to the view that a firm's strategic choices are affected by dominant coalition's background composition ([Hambrick and Mason, 1984](#)), and to the stream of literature that has

	All firms	Family-1	Nonfamily-1	Family-2	Family-3
Intercept	5.34 (2.74)***	5.76 (2.07)**	3.44 (1.85)*	5.77 (2.06)**	6.02 (2.22)***
CEO-D	0.27 (0.60)	-2.40 (-3.14)***	1.50 (3.01)***	-2.13 (-2.20)**	-2.12 (-2.26)**
W-board	0.22 (2.73)***	0.16 (0.92)	0.17 (2.10)**	0.19 (1.04)	0.14 (0.78)
F-CEO	-	-	-	-0.51 (-0.56)	-1.25 (-1.18)
F-BOARD	-	-	-	0.49 (0.17)	-0.57 (-0.20)
CEE _{<i>t</i>-1}	-0.02 (-1.33)	0.06 (1.02)	-0.03 (-2.28)**	0.06 (1.07)	0.06 (1.06)
HCE _{<i>t</i>-1}	0.04 (4.93)***	-0.00 (-0.09)	0.04 (0.47)	-0.00 (-0.15)	-0.00 (-0.35)
SCE _{<i>t</i>-1}	-0.23 (-0.70)	-0.41 (-1.30)	-0.03 (-0.05)	-0.38 (-1.13)	-0.28 (-0.94)
Link JV	-0.79 (-1.72)*	-3.31 (-2.77)***	-0.46 (-0.82)	-3.18 (-2.94)***	-4.37 (-3.45)***
Link JV*Family CEO	-	-	-	-	1.93 (1.31)
Firm size	0.41 (3.47)***	0.50 (2.49)**	0.47 (3.83)***	0.49 (2.40)**	0.51 (2.49)**
ROA _{<i>t</i>-1}	-1.34 (-0.39)	0.30 (0.07)	2.52 (0.57)	-0.48 (-0.11)	-1.34 (-0.35)
EXTRA UE OP	0.56 (1.21)	2.08 (1.86)*	0.44 (0.80)	1.98 (1.92)*	2.22 (2.07)**
Year	Yes	Yes	Yes	Yes	Yes
Industry	Yes	Yes	Yes	Yes	Yes
obs	758	279	479	279	279
R ²	0.30	0.42	0.45	0.42	0.44

Note(s): All variables were defined in Table 1.***Indicate significance at the 1 % level; **Indicate significance at the 5 % level; *Indicate significance at the 10 % level

Family control and influence on JV investment

81

Table 5. GLS panel regression results with lagged variables

Hypotheses	Variable	Exp. Sign	Value	<i>t</i>	Decision	<div>Table 6.</div> <div>Hypotheses</div>
H1a. Family ownership control negatively affects JV investment size	NFF JVSize-FF JVSize	+	0.71	3.46***	Supported	
H1b. Family involvement on the board amplifies the effect of family control on JV investment	F-CEO	-	-1.25	-1.18	Supported	
	CEO-D	-	-2.12	-2.26***	Supported	
	F-BOARD	-	-0.57	-0.20	Supported	
H2. The type of JV investment moderates the effect of family control on JV investment	Link JV	-	-4.37	-3.45***	Supported	
H3. Intellectual capital efficiency moderates the effect of family control on JV investment	SCE	+	-0.28	-0.94	Not supported	
	HCE	+	-0.00	-0.35	Not supported	

studied family firms' innovation under this perspective (Sciascia *et al.*, 2013; Kraiczy *et al.*, 2014, 2015; Diéguez-Soto and Martínez-Romero, 2019), our results highlight the relevance of board characteristics and type of influence exerted by the owning family on JV investments.

Consistent with H1b, our results point out that CEO duality reduces JVs investment size in family firms whilst it has the opposite effect in nonfamily businesses. In accordance with previous literature, we find that CEO duality is more common in family-controlled firms than nonfamily firms (Cheung *et al.*, 2005; Chen *et al.*, 2005; Lam and Lee, 2008) and the position is normally held by a family member. CEO duality is the expression of the strong will of the family to maintain business control in order to preserve SEW and it fosters a long-term investment horizon and risk aversion. Literature points out that the concern for the preservation of monitoring power affects family firms' alliance structure (De Massis *et al.*, 2015; Nieto *et al.*, 2015) and that they tend to directly monitor their subsidiaries (Gómez-Mejía *et al.*, 2010). The overlapping role of CEO and chair of the board denotes a firm's preference for a strong monitoring power that lowers the investment in joint-controlled ventures.

Moreover, CEO duality speeds up the decision-making process but lowers the ability to supervise (Cabrera-Suárez and Martín-Santana, 2015). There is evidence that it might exert,

respectively, negative and positive effects in family and nonfamily companies' performance (Lam and Lee, 2008). In this case, having the chief executive holding the highest position of power on the board of directors might increase the capability to seize joint venture opportunities but it might be perceived by family-business potential co-venturers as the expression of a weak and opaque governance, given their ability to extract private benefits from the business (Sharma, 2004; Claessens *et al.*, 2002), reducing the opportunities to form JVs.

Conversely, a family CEO and the percentage of family members on the board have a negative but not significant effect on JV investment size. This result is consistent with the evidence that family members are less prone to enter cooperative investments in order to preserve the SEW (Gomez-Mejia *et al.*, 2007) and the view that nonfamily directors and nonfamily CEOs rely on more diverse networks (Arregle *et al.*, 2007) that may facilitate the development of joint ventures. Nevertheless, this evidence suggests that family involvement in active management, *per se*, does not significantly affect a family firm's propensity to invest in joint controlled businesses, but the effect depends on CEO power.

Not having found a significant effect for the percentage of family members on the board might also depend on the different generational stages the observed firms belong to. In earlier generational stages, family members on the board belong to the same nuclear family, the influence of the founder is stronger, as is the long-term perspective, so a strong family presence on the board leads to a preference for investments that are under the family's complete control (Gomez-Mejia *et al.*, 2007). In later generational stages, family members on the board might represent different generations as well as belong to different family branches (Le Breton-Miller and Miller, 2013); they may prefer to pursue financial objectives compared to SEW (Mariotti *et al.*, 2020) and have a different risk propensity (Muñoz-Bullon *et al.*, 2018) and a shorter term perspective that might increase investment size in JVs. This interpretation is supported by literature reporting that firms are less prone to engage in international JVs when ownership is concentrated in the hands of the founder and more prone when ownership is held by several members not belonging to the same nuclear family (Pongelli *et al.*, 2016). The former ownership structure characterizes the first generational stage and the latter the later ones.

Our results highlight that, in nonfamily companies, the presence of women on the board positively affects JV investment size. This evidence is consistent with research on gender diversity reporting that women's representation on the board positively affects a firm's commitment toward its stakeholders (Nadeem *et al.*, 2017) as well as its reputation (Bear *et al.*, 2010) and this might facilitate the development of its relational capital and the creation of JVs.

The relation between gender diversity and JV investment size is not significant for family firms, and this evidence could be the result of mixed effects. As a matter of fact, female directors may be family or nonfamily affiliated and, in the majority of gender-diverse boards, at least one woman belonged to the first type (Bianco *et al.*, 2015). Family and nonfamily women on the board may have a different effect on a firm's JVs investment size as the former are strongly led by SEW preservation and the latter by financial goals. Empirical evidence on the effect of family and nonfamily female directors on family businesses' CSR engagement supports this interpretation (Campopiano *et al.*, 2019).

Moreover, empirical literature points out that attaining women critical mass on the board enhances the level of firm innovation, but the relation is mediated by board members' strategic tasks (Torchia *et al.*, 2011). Under this perspective, our results call for further research in this direction as they might suggest that the degree to which board members are involved in the strategic process could be different in family and nonfamily firms resulting in a significant positive effect of female directors on JVs investments only for the latter.

5.3 JV type and IC components

Our results point out that family firms are more likely to implement link-type JVs than nonfamily companies. This is probably because link JVs are an alternative means of entering foreign markets to a wholly owned subsidiary. This result is in line with recent research pointing out that family firms, compared to nonfamily businesses, are more likely to choose JVs rather than WOSs when entering a new market, due to their risk aversion, as they would reduce the risks linked to the inexperience of their management in international markets (Kuo *et al.*, 2012) and rely on more strategic flexibility (Hitt *et al.*, 1998; Harrison *et al.*, 2001). This explanation is supported by the evidence that a firm's extra-European Union operativity has a significant positive effect on the investment in JVs for family firms.

Nevertheless, consistent with H2, we can note that, in general, family firms tend to limit the size of their investment in JVs when there is a predominance of the link type. The level of risk is different in the case of scale and link JVs. A scale JV is a homogeneous cooperation and "the venturer's relationship is similar to that with a third party with whom it has an arm's-length contract, but where the venturer is protected by a guarantee, that is the common control over that third-party" (Laurenço and Curto, 2010, p. 740). A link JV is a heterogeneous cooperation as it is often created when the venturers come from different industries to enter a new business together and each provides a different and specific contribution in order to develop the new business. In this case, the JV substitutes a contract between the venturers. According to Dussage *et al.* (2000), partners are more likely to reorganize or takeover link JVs than scale partnerships, whilst scale JVs are more stable and tend to go on without material changes. A link JV is riskier than a scale JV, so, in cases of link JVs, family firms might limit their investment size in order to limit the related risk. This effect is significant only for family firms. They are more risk averse than nonfamily firms as they are concerned for the business' survival over generations: the firm is a long-term investment that must be passed on to heirs and, for this reason, families are more prone to limit the size of investments in link type JVs.

As for the effect of IC, our results point out that structural capital efficiency has a negative not significant effect on JV investment size, in spite of its potential role in facilitating the management of a joint venture's different aspects – partner selection, negotiation, contract formulation and relationship termination – by means of well-constructed organizational structures and in storing and spreading through the organization knowledge acquired by alliances (Chang *et al.*, 2008).

Our empirical evidence shows that HCE is higher for family firms and that the difference is statistically significant. This evidence is consistent with literature highlighting that human capital represents the most important intangible of family firms (Sirmon and Hitt, 2003). Human capital efficiency significantly affects the investment in JVs for all firms, but we do not find this effect for family firms, not confirming H3. A company's resource profile is a relevant component of the alliance formation process (Stuart, 2000); it also affects a firm's ability in accumulating and sharing through the organization what is learnt in previous cooperative agreements, also to the benefit of future alliances as reported by research on nonequity strategic alliances (Chang *et al.*, 2008). Our results suggest that this holds also for nonequity alliances and a specific resource, human capital, has a key role in the development of JV investment size. Nevertheless, we do not find this effect for family businesses. These results, all in all, suggest that if a family firm can rely on IC efficiency it might be less prone to develop joint ventures in order to protect its competitive advantage and, by this means, the SEW. This view is consistent with previous research pointing out family business concerns for the effect of alliances on the preservation of competitive advantage (Zhara, 2005).

6. Concluding remarks: contributions, implications and limitations

This study investigates the effect of the main dimension of socioemotional wealth – family control and influence – on a firm's JV investment size, controlling for the effect of JV type and

of the interplay with the other IC components. It highlights the need to consider family businesses as heterogeneous groups (Chrisman *et al.*, 2005; Westhead and Howorth, 2007; Kraiczy *et al.*, 2015) by taking into account different board characteristics and by integrating IC components and JV type, contextual factors of heterogeneity that help to clarify family firms' investment choices in JVs. In doing so, it also contributes to the stream of literature which analyzes the influence of family firms' board characteristics on a company's innovation strategies (Kraiczy *et al.*, 2014, 2015; Diéguez-Soto and Martínez-Romero, 2019), providing evidence that strong direct influence of the family on the board, by the means of CEO duality, reduces the investment size in JVs. This implies that the presence of family members on the board does not have *per se* a significant moderating effect on innovation strategies via cooperation, whilst the overlapping role of CEO and Chair of the board may produce this effect. These results have implications for family firms and practitioners as they point out how the choices in terms of board structure may limit the development of JVs, a viable way of acquiring information, knowledge and technology and avoiding the effect of conservatism on business management.

This study also adds to the stream of literature that addresses the issue of gender diversity in family business boards (Martinez Jimenez, 2009; Campopiano *et al.*, 2019; Cruz *et al.*, 2019) pointing out that the presence of women on the board increases JV investment size in nonfamily firms, but this effect is not significant for family firms. This result has relevant implications for family firms' governance and management as it suggests that family businesses should better exploit women's skill, experiences and useful networks in order to develop alliances and increase women's presence when the family exerts a strong direct influence on the board.

This research contributes to JV literature by pointing out that JV investment size is lower for family-owned businesses than for nonfamily firms. Moreover, to the best of our knowledge this is the first study to provide evidence on the moderating effect of JV type and IC components on JV investment, with further implications for management. Family businesses are more likely to invest in link JV than nonfamily companies, but the former tend to reduce the risks associated with this type of alliance by limiting the size of the investment. These results make family businesses aware of their different behavior compared to their nonfamily counterparts, as in preserving the SEW they tend to limit a critical external knowledge source. As a matter of fact in link JV each co-venturer contributes distinctive knowledge, but at the same time the investment in this type of business triggers the development of new capabilities. Human capital has a significant positive effect on JV investments for all firms, suggesting that investing in the former and increasing its efficiency can improve the ability to develop alliances. Our empirical evidence points out that family firms present a higher human capital efficiency than nonfamily companies and they might exploit it in order to expand their joint controlled investments. This result is also of interest as human capital efficiency is a prerequisite to ensure that organization effectively absorbs the knowledge, which could be acquired by the means of JVs (Chang *et al.*, 2008).

In common with applied research more generally, this study is not without limitations. Improvements might be carried out following three different lines:

- (1) Methodology
- (2) JV characteristics analyzed
- (3) Board of director dimensions considered

The study focuses on the effect of "family control and influence" on the investment in JVs. Other SEW dimensions, such as family members' sense of identification with the company and the desire to transfer the business to future generations, might affect JV investments. We

cannot rely on this type of information as we based our analyses on data contained in the financial statements and in the Orbis database. It can be codified by integrating the study with information collected through surveys. In doing so, future research could go further in order to develop a multidimensional measurement of family-affective endowment in the firm.

The research model includes, for the first time, the type of alliance – link or scale – as a variable expected to moderate the effect of family control on JV investment size. As a matter of fact, other contextual factors, such as governance characteristics of the co-venturers, distance and institutional aspects of the country in which the JV operates might affect family firms' risk perception. This could be an interesting line of investigation for further research.

This explorative study analyses the effect of certain board characteristics (CEO nature, CEO duality, proportion of family members and women) on JV investment but other individual characteristics of board members – experience, values and personalities – (Hambrick and Mason, 1984) could help explain a firm's behavior. Our results call for a more detailed analysis on the effect of board diversity in order to better disentangle the effect of family firms' heterogeneity on joint-controlled investments. So, the next step in this research will add a further dimension of observation taking into account the internal composition of the family group on the board in terms of generations, family branches sitting on the board and ownership stake held by board members. This additional dimension will allow us to identify potential dysfunctional group dynamics that can limit family firms' investments in JVs.

Note

1. <http://www.ffi.org/?page=GlobalDataPoints>. Last accessed April 18, 2018.

References

- Abdellatif, M., Amann, B. and Jaussaud, J. (2010), "Family versus nonfamily business: a comparison of international strategies", *Journal of Family Business Strategy*, Vol. 1 No. 2, pp. 108-116.
- Andersén, J. (2015), "The absorptive capacity of family firms", *Journal of Family Business Management*, Vol. 5 No. 1, pp. 73-89.
- Arregle, J.L., Hitt, M.A., Sirmon, D.G. and Very, P. (2007), "The development of organizational social capital: attributes of family firms", *Journal of Management Studies*, Vol. 44 No. 1, pp. 73-95.
- Astrachan, J.H. and Jaskiewicz, P. (2008), "Emotional returns and emotional costs in privately held family businesses: advancing traditional business valuation", *Family Business Review*, Vol. 21 No. 2, pp. 139-149.
- Bacci, S., Cirillo, A., Mussolino, D. and Terzani, S. (2018), "The influence of family ownership dispersion on debt level in privately held firms", *Small Business Economics*, Vol. 51 No. 3, pp. 557-576.
- Barca, F. (1995), "On corporate governance in Italy: issues, facts and agenda", *Facts and Agenda*, Bank of Italy, Rome.
- Basly, S. (2007), "Conservatism: an explanation of the financial choices of the small and medium family enterprise", *Corporate Ownership and Control*, Vol. 5 No. 1, pp. 459-469.
- Basly, S. and Saunier, P.L. (2020), "Family members' commitment to the firm and family business continuity: investigating the mediating role of family-to-firm identity fit and emotional attachment", *Journal of Small Business and Entrepreneurship*, Vol. 32 No. 1, pp. 9-32.
- Baughn, C.C., Denekamp, J.G., Stevens, J.H. and Osborn, R.N. (1997), "Protecting intellectual capital in international alliances", *Journal of World Business*, Vol. 32 No. 2, pp. 103-117.

- Bear, S., Rahman, N. and Post, C. (2010), "The impact of board diversity and gender composition on corporate social responsibility and firm reputation", *Journal of Business Ethics*, Vol. 97 No. 2, pp. 207-221.
- Beck, S. and Prügl, R. (2018), "Family firm reputation and humanization: consumers and the trust advantage of family firms under different conditions of brand familiarity", *Family Business Review*, Vol. 31 No. 4, pp. 460-482.
- Berrone, P., Cruz, C., Gomez-Mejia, L.R. and Larraza-Kintana, M. (2010), "Socioemotional wealth and corporate responses to institutional pressures: do family-controlled firms pollute less?", *Administrative Science Quarterly*, Vol. 55 No. 1, pp. 82-113.
- Berrone, P., Cruz, C. and Gomez-Mejia, L.R. (2012), "Socioemotional wealth in family firms: theoretical dimensions, assessment approaches, and agenda for future research", *Family Business Review*, Vol. 25 No. 3, pp. 258-279.
- Bianco, M., Ciavarella, A. and Signoretti, R. (2015), "Women on corporate boards in Italy: the role of family connections", *Corporate Governance: An International Review*, Vol. 23 No. 2, pp. 129-144.
- Binz, C., Hair, J.F. Jr, Pieper, T.M. and Baldauf, A. (2013), "Exploring the effect of distinct family firm reputation on consumers' preferences", *Journal of Family Business Strategy*, Vol. 4 No. 1, pp. 3-11.
- Bjuggren, P.O., Nordström, L. and Palmberg, J. (2018), "Are female leaders more efficient in family firms than in non-family firms?", *Corporate Governance: The International Journal of Business in Society*, Vol. 18 No. 2, pp. 185-205.
- Bresciani, S., Thrassou, A. and Vrontis, D. (2013), "Change through innovation in family businesses: evidence from an Italian sample", *World Review of Entrepreneurship, Management and Sustainable Development*, Vols 4, 9 No. 2, pp. 195-215.
- Cabrera-Suárez, M.K. and Martín-Santana, J.D. (2015), "Board composition and performance in Spanish non-listed family firms: the influence of type of directors and CEO duality", *BRQ Business Research Quarterly*, Vol. 18 No. 4, pp. 213-229.
- Cabrera-Suárez, K., De Saá-Pérez, P. and García-Almeida, D. (2001), "The succession process from a resource and knowledge-based view of the family firm", *Family Business Review*, Vol. 14 No. 1, pp. 37-48.
- Calabrò, A., Vecchiari, M., Gast, J., Campopiano, G., De Massis, A. and Kraus, S. (2019), "Innovation in family firms: a systematic literature review and guidance for future research", *International Journal of Management Reviews*, Vol. 21 No. 3, pp. 317-355.
- Campopiano, G., Rinaldi, F.R., Sciascia, S. and De Massis, A. (2019), "Family and non-family women on the board of directors: effects on corporate citizenship behavior in family-controlled fashion firms", *Journal of Cleaner Production*, Vol. 214, pp. 41-51.
- Cassia, L., De Massis, A. and Pizzurno, E. (2012), "Strategic innovation and new product development in family firms", *International Journal of Entrepreneurial Behavior and Research*, Vol. 18 No. 2, pp. 198-232.
- Chang, S.C., Chen, S.S. and Lai, J.H. (2008), "The effect of alliance experience and intellectual capital on the value creation of international strategic alliances", *Omega*, Vol. 36 No. 2, pp. 298-316.
- Chang, Y.C., Kao, M.S. and Kuo, A. (2014), "The influences of governance quality on equity-based entry mode choice: the strengthening role of family control", *International Business Review*, Vol. 23 No. 5, pp. 1008-1020.
- Chen, Z., Cheung, Y.L., Stouraitis, A. and Wong, A.W. (2005), "Ownership concentration, firm performance, and dividend policy in Hong Kong", *Pacific-Basin Finance Journal*, Vol. 13 No. 4, pp. 431-449.
- Cheung, Y.L., Stouraitis, A. and Wong, A.W. (2005), "Ownership concentration and executive compensation in closely held firms: evidence from Hong Kong", *Journal of Empirical Finance*, Vol. 12 No. 4, pp. 511-532.

-
- Chrisman, J.J. and Patel, P.C. (2012), "Variations in R&D investments of family and nonfamily firms: behavioral agency and myopic loss aversion perspectives", *Academy of Management Journal*, Vol. 55 No. 4, pp. 976-997.
- Chrisman, J.J., Chua, J.H. and Sharma, P. (2005), "Trends and directions in the development of a strategic management theory of the family firm", *Entrepreneurship Theory and Practice*, Vol. 29 No. 5, pp. 555-575.
- Chrisman, J.J., Memili, E. and Misra, K. (2014), "Nonfamily managers, family firms, and the winner's curse: the influence of noneconomic goals and bounded rationality", *Entrepreneurship Theory and Practice*, Vol. 38 No. 5, pp. 1103-1127.
- Chrisman, J.J., Fang, H., Kotlar, J. and De Massis, A. (2015), "A note on family influence and the adoption of discontinuous technologies in family firms", *Journal of Product Innovation Management*, Vol. 32 No. 3, pp. 384-388.
- Claessens, S., Djankov, S., Fan, J.P. and Lang, L.H. (2002), "Disentangling the incentive and entrenchment effects of large shareholdings", *The Journal of Finance*, Vol. 57 No. 6, pp. 2741-2771.
- Claver, E., Rienda, L. and Quer, D. (2007), "The internationalisation process in family firms: choice of market entry strategies", *Journal of General Management*, Vol. 33 No. 1, pp. 1-14.
- Claver-Cortés, E., Molina-Manchón, H. and Zaragoza-Sáez, P. (2013), "Intellectual capital model for family firms", *Knowledge Management Research and Practice*, Vol. 11 No. 2, pp. 184-195.
- Claver-Cortés, E., Zaragoza-Sáez, P.C., Molina-Manchón, H. and Úbeda-García, M. (2015), "Intellectual capital in family firms: human capital identification and measurement", *Journal of Intellectual Capital*, Vol. 16 No. 1, pp. 199-223.
- Crupi, A., Cesaroni, F. and Di Minin, A. (2020), "Understanding the impact of intellectual capital on entrepreneurship: a literature review", *Journal of Intellectual Capital*, Vol. 22 No. 3, pp. 528-559.
- Cruz, C., Justo, R., Larrazza-Kintana, M. and Garcés-Galdeano, L. (2019), "When do women make a better table? examining the influence of women directors on family firm's corporate social performance", *Entrepreneurship Theory and Practice*, Vol. 43 No. 2, pp. 282-301.
- De Massis, A., Frattini, F., Pizzurno, E. and Cassia, L. (2015), "Product innovation in family versus nonfamily firms: an exploratory analysis", *Journal of Small Business Management*, Vol. 53 No. 1, pp. 1-36.
- Debellis, F., De Massis, A., Petruzzelli, A.M., Frattini, F. and Del Giudice, M. (2021), "Strategic agility and international joint ventures: the willingness-ability paradox of family firms", *Journal of International Management*, Vol. 27 No. 1, pp. 1-13.
- Diéguez-Soto, J. and Martínez-Romero, M.J. (2019), "Family involvement in management and product innovation: the mediating role of R&D strategies", *Sustainability*, Vol. 11 No. 7, p. 2162.
- Diéguez-Soto, J., Manzaneque, M. and Rojo-Ramírez, A.A. (2016), "Technological innovation inputs, outputs, and performance: the moderating role of family involvement in management", *Family Business Review*, Vol. 29 No. 3, pp. 327-346.
- Dussauge, P., Garrette, B. and Mitchell, W. (2000), "Learning from competing partners: outcomes and durations of scale and link alliances in Europe, North America and Asia", *Strategic Management Journal*, Vol. 21 No. 2, pp. 99-126.
- Dussauge, P., Garrette, B. and Mitchell, W. (2004), "Asymmetric performance: the market share impact of scale and link alliances in the global auto industry", *Strategic Management Journal*, Vol. 25 No. 7, pp. 701-711.
- Edwards, J. and Fischer, K. (1994), *Banks, Finance and Investment in Germany*, Cambridge University Press, Cambridge, doi: [10.1017/CBO9780511582370](https://doi.org/10.1017/CBO9780511582370).
- Faccio, M. and Lang, L.H. (2002), "The ultimate ownership of Western European corporations", *Journal of Financial Economics*, Vol. 65 No. 3, pp. 365-395.

- Feranita, F., Kotlar, J. and De Massis, A. (2017), "Collaborative innovation in family firms: past research, current debates and agenda for future research", *Journal of Family Business Strategy*, Vol. 8 No. 3, pp. 137-156.
- Fernández, Z. and Nieto, M. (2006), "International involvement of SMES: the impact of ownership", *Journal of International Business Studies*, Vol. 37 No. 3, pp. 340-351.
- Franks, J., Mayer, C., Volpin, P. and Wagner, H.F. (2012), "The life cycle of family ownership: international evidence", *The Review of Financial Studies*, Vol. 25 No. 6, pp. 1675-1712.
- Gavana, G., Gottardo, P. and Moisello, A.M. (2018), "Do customers value CSR disclosure? Evidence from Italian family and non-family firms", *Sustainability*, Vol. 10 No. 5, p. 1642.
- Ginesti, G. and Ossorio, M. (2020), "The influence of family-related factors on intellectual capital performance in family businesses", *Journal of Management and Governance*, Vol. 25, pp. 535-560, doi: [10.1007/s10997-020-09510-4](https://doi.org/10.1007/s10997-020-09510-4).
- Gómez-Mejía, L.R., Haynes, K.T., Núñez-Nickel, M., Jacobson, K.J. and Moyano-Fuentes, J. (2007), "Socioemotional wealth and business risks in family-controlled firms: evidence from Spanish olive oil mills", *Administrative Science Quarterly*, Vol. 52 No. 1, pp. 106-137.
- Gómez-Mejía, L.R., Makri, M. and Kintana, M.L. (2010), "Diversification decisions in family controlled firms", *Journal of Management Studies*, Vol. 47 No. 2, pp. 223-252.
- Gómez-Mejía, L.R., Nunez-Nickel, M. and Gutierrez, I. (2001), "The role of family ties in agency contracts", *Academy of Management Journal*, Vol. 44 No. 1, pp. 81-95.
- Gómez-Mejía, L.R., Cruz, C., Berrone, P. and De Castro, J. (2011), "The bind that ties: socioemotional wealth preservation in family firms", *Academy of Management Annals*, Vol. 5 No. 1, pp. 653-707.
- Gottardo, P. and Moisello, A.M. (2018), *Capital Structure, Earnings Management, and Risk of Financial Distress: A Comparative Analysis of Family and Non-family Firms*, Springer, Cham.
- Grant, R.M. and Baden-Fuller, C. (2004), "A knowledge accessing theory of strategic alliances", *Journal of Management Studies*, Vol. 41 No. 1, pp. 61-84.
- Graves, C. and Thomas, J. (2006), "Internationalization of Australian family businesses: a managerial capabilities perspective", *Family Business Review*, Vol. 19 No. 3, pp. 207-224.
- Greco, G., Ferramosca, S. and Allegrini, M. (2014), "Exploring intellectual capital in family firms. An empirical investigation", *International Journal of Learning and Intellectual Capital*, Vol. 11 No. 2, pp. 91-106.
- Habbershon, T.G. and Williams, M.L. (1999), "A resource-based framework for assessing the strategic advantages of family firms", *Family Business Review*, Vol. 12 No. 1, pp. 1-25.
- Hambrick, D.C. (2007), "Upper echelons theory: an update", *Academy of Management Review*, Vol. 32 No. 2, pp. 334-343.
- Hambrick, D.C. and Mason, P.A. (1984), "Upper echelons: the organization as a reflection of its top managers", *Academy of Management Review*, Vol. 9 No. 2, pp. 193-206.
- Harrison, J.S., Hitt, M.A., Hoskisson, R.E. and Ireland, R.D. (2001), "Resource complementarity in business combinations: extending the logic to organizational alliances", *Journal of Management*, Vol. 27 No. 6, pp. 679-690.
- Hennart, J.F. (1988), "A transaction costs theory of equity joint ventures", *Strategic Management Journal*, Vol. 9 No. 4, pp. 361-374.
- Hitt, M.A., Keats, B.W. and DeMarie, S.M. (1998), "Navigating in the new competitive landscape: building strategic flexibility and competitive advantage in the 21st century", *Academy of Management Perspectives*, Vol. 12 No. 4, pp. 22-42.
- Huybrechts, J., Voordeckers, W. and Lybaert, N. (2013), "Entrepreneurial risk taking of private family firms: the influence of a nonfamily CEO and the moderating effect of CEO tenure", *Family Business Review*, Vol. 26 No. 2, pp. 161-179.

- Iazzolino, G. and Laise, D. (2013), "Value added intellectual coefficient (VAIC) – a methodological and critical review", *Journal of Intellectual Capital*, Vol. 14 No. 4, pp. 547-563.
- Jaskiewicz, P., Uhlenbruck, K., Balkin, D.B. and Reay, T. (2013), "Is nepotism good or bad? Types of nepotism and implications for knowledge management", *Family Business Review*, Vol. 26 No. 2, pp. 121-139.
- Johnson, W.H. (1999), "An integrative taxonomy of intellectual capital: measuring the stock and flow of intellectual capital components in the firm", *International Journal of Technology Management*, Vol. 18 No. 5, pp. 562-575.
- Kellermanns, F.W., Eddleston, K.A. and Zellweger, T.M. (2012), "Article commentary: extending the socioemotional wealth perspective: a look at the dark side", *Entrepreneurship Theory and Practice*, Vol. 36 No. 6, pp. 1175-1182.
- Khamseh, H.M. and Jolly, D. (2014), "Knowledge transfer in alliances: the moderating role of the alliance type", *Knowledge Management Research and Practice*, Vol. 12 No. 4, pp. 409-420.
- Kishna, M., Niesten, E., Negro, S. and Hekkert, M.P. (2017), "The role of alliances in creating legitimacy of sustainable technologies: a study on the field of bio-plastics", *Journal of Cleaner Production*, Vol. 155, pp. 7-16.
- Kraczy, N.D., Hack, A. and Kellermanns, F.W. (2014), "New product portfolio performance in family firms", *Journal of Business Research*, Vol. 67, pp. 1065-1073.
- Kraczy, N.D., Hack, A. and Kellermanns, F.W. (2015), "What makes a family firm innovative? CEO risk-taking propensity and the organizational context of family firms", *Journal of Product Innovation Management*, Vol. 32 No. 3, pp. 334-348.
- Kuo, A., Kao, M.S., Chang, Y.C. and Chiu, C.F. (2012), "The influence of international experience on entry mode choice: difference between family and non-family firms", *European Management Journal*, Vol. 30 No. 3, pp. 248-263.
- La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (1999), "Corporate ownership around the world", *The Journal of Finance*, Vol. 54 No. 2, pp. 471-517.
- Lam, T.Y. and Lee, S.K. (2008), "CEO duality and firm performance: evidence from Hong Kong", *Corporate Governance: The International Journal of Business in Society*, Vol. 8 No. 3, pp. 299-316.
- Le Breton-Miller, I. and Miller, D. (2009), "Agency vs Stewardship in public family firms: a social embeddedness reconciliation", *Entrepreneurship Theory and Practice*, Vol. 33 No. 6, pp. 1169-1191.
- Le Breton-Miller, I. and Miller, D. (2013), "Socioemotional wealth across the family firm life cycle: a commentary on 'family business survival and the role of boards'", *Entrepreneurship Theory and Practice*, Vol. 37 No. 6, pp. 1391-1397.
- Leana, C.R. III and Van Buren, H.J. (1999), "Organizational social capital and employment practices", *Academy of Management Review*, Vol. 24 No. 3, pp. 538-555.
- Li, F. (2016), "Endogeneity in CEO power: a survey and experiment", *Investment Analyst Journal*, Vol. 45 No. 3, pp. 149-162.
- Lourenço, I.C. and Curto, J.D. (2010), "Determinants of the accounting choice between alternative reporting methods for interests in jointly controlled entities", *European Accounting Review*, Vol. 19 No. 4, pp. 739-773.
- Mariotti, S., Marzano, R. and Piscitello, L. (2020), "The role of family firms' generational heterogeneity in the entry mode choice in foreign markets", *Journal of Business Research*, Vol. 132, pp. 800-812, doi: [10.1016/j.jbusres.2020.10.064](https://doi.org/10.1016/j.jbusres.2020.10.064).
- Martinez Jimenez, R. (2009), "Research on women in family firms: current status and future directions", *Family Business Review*, Vol. 22 No. 1, pp. 53-64.
- McGrath, H. and O'Toole, T. (2018), "Extending the concept of familiness to relational capability: a Belgian micro-brewery study", *International Small Business Journal*, Vol. 36 No. 2, pp. 194-219.

- Minichilli, A., Corbetta, G. and MacMillan, I.C. (2010), "Top management teams in family-controlled companies: 'familiness', 'faultlines', and their impact on financial performance", *Journal of Management Studies*, Vol. 47 No. 2, pp. 205-222.
- Mueller, G.C. and Barker, V.L. III (1997), "Upper echelons and board characteristics of turnaround and nonturnaround declining firms", *Journal of Business Research*, Vol. 39 No. 2, pp. 119-134.
- Muñoz de Prat, J., Escrivá-Beltrán, M. and Gómez-Calvet, R. (2020), "Joint ventures and sustainable development", *A Bibliometric Analysis Sustainability*, Vol. 12 No. 26, p. 10176.
- Muñoz-Bullón, F., Sánchez-Bueno, M.J. and Suárez-González, I. (2018), "Diversification decisions among family firms: the role of family involvement and generational stage", *BRQ Business Research Quarterly*, Vol. 21 No. 1, pp. 39-52.
- Nadeem, M., Zaman, R. and Saleem, I. (2017), "Boardroom gender diversity and corporate sustainability practices: evidence from Australian Securities Exchange listed firms", *Journal of Cleaner Production*, Vol. 149, pp. 874-885.
- Naldi, L., Nordqvist, M., Sjöberg, K. and Wiklund, J. (2007), "Entrepreneurial orientation, risk-taking and performance in family firms", *Family Business Review*, Vol. 20, pp. 33-47.
- Nieto, M.J., Santamaria, L. and Fernandez, Z. (2015), "Understanding the innovation behavior of family firms", *Journal of Small Business Management*, Vol. 53 No. 2, pp. 382-399.
- Nordqvist, M., Sharma, P. and Chirico, F. (2014), "Family firm heterogeneity and governance: a configuration approach", *Journal of Small Business Management*, Vol. 52 No. 2, pp. 192-209.
- Pongelli, C., Caroli, M.G. and Cucculelli, M. (2016), "Family business going abroad: the effect of family ownership on foreign market entry mode decisions", *Small Business Economics*, Vol. 47 No. 3, pp. 787-801.
- Pulic, A. (2004), "Intellectual capital—does it create or destroy value?", *Measuring Business Excellence*, Vol. 8 No. 1, pp. 62-68.
- Randolph, R., Wang, Z. and Memili, E. (2018), "Entrenchment in publicly traded family firms: evidence from the S&P 500", *Long Range Planning*, Vol. 51 No. 5, pp. 736-749.
- Reed, K.K., Lubatkin, M. and Srinivasan, N. (2006), "Proposing and testing an intellectual capital-based view of the firm", *Journal of Management Studies*, Vol. 43 No. 4, pp. 867-893.
- Romano, C.A., Tanewski, G.A. and Smyrnios, K.X. (2001), "Capital structure decision making: a model for family business", *Journal of Business Venturing*, Vol. 16 No. 3, pp. 285-310.
- Scholes, L., Mustafa, M. and Chen, S. (2016), "Internationalization of small family firms: the influence of family from a socioemotional wealth perspective", *Thunderbird International Business Review*, Vol. 58 No. 2, pp. 131-146.
- Sciascia, S., Mazzola, P., Astrachan, J.H. and Pieper, T.M. (2013), "Family involvement in the board of directors: effects on sales internationalization", *Journal of Small Business Management*, Vol. 51 No. 1, pp. 83-99.
- Sestu, M.C. and Majocchi, A. (2020), "Family firms and the choice between wholly owned subsidiaries and joint ventures: a transaction costs perspective", *Entrepreneurship Theory and Practice*, Vol. 44 No. 22, pp. 211-232.
- Sharabati, A.A.A., Jawad, S.N. and Bontis, N. (2010), "Intellectual capital and business performance in the pharmaceutical sector of Jordan", *Management Decision*, Vol. 48 No. 41, pp. 105-131.
- Sharma, P. (2004), "An overview of the field of family business studies: current status and directions for the future", *Family Business Review*, Vol. 17 No. 1, pp. 1-36.
- Shiu, H.J. (2006), "The application of the value added intellectual coefficient to measure corporate performance: evidence from technological firms", *International Journal of Management*, Vol. 23 No. 2, pp. 356-365.

- Sirmon, D.G. and Hitt, M.A. (2003), "Managing resources: linking unique resources, management, and wealth creation in family firms", *Entrepreneurship Theory and Practice*, Vol. 27 No. 4, pp. 339-358.
- Stuart, T.E. (2000), "Interorganizational alliances and the performance of firms: a study of growth and innovation rates in a high-technology industry", *Strategic Management Journal*, Vol. 21 No. 8, pp. 791-811.
- Thrassou, A., Vrontis, D. and Bresciani, S. (2018), "The agile innovation pendulum: family business innovation and the human, social, and marketing capitals", *International Studies of Management and Organisation*, Vol. 48 No. 1, pp. 88-104.
- Torchia, M., Calabrò, A. and Huse, M. (2011), "Women directors on corporate boards: from tokenism to critical mass", *Journal of Business Ethics*, Vol. 102 No. 2, pp. 299-317.
- Treviño-Rodríguez, R.N. and Bontis, N. (2007), "The role of intellectual capital in Mexican family-based businesses: understanding their soul, brain and heart", *Journal of Information and Knowledge Management*, Vol. 6 No. 03, pp. 189-200.
- Villalonga, B. and Amit, R. (2010), "Family control of firms and industries", *Financial Management*, Vol. 39 No. 3, pp. 863-904.
- Westhead, P. and Howorth, C. (2007), "'Types' of private family firms: an exploratory conceptual and empirical analysis", *Entrepreneurship and Regional Development*, Vol. 19 No. 5, pp. 405-431.
- Wiseman, R.M. and Gomez-Mejia, L.R. (1998), "A behavioral agency model of managerial risk taking", *Academy of Management Review*, Vol. 23 No. 1, pp. 133-153.
- Yamanoi, J. and Asaba, S. (2018), "The impact of family ownership on establishment and ownership modes in foreign direct investment: the moderating role of corruption in host countries", *Global Strategy Journal*, Vol. 8 No. 1, pp. 106-135.
- Zahra, S.A. (2005), "Entrepreneurial risk taking in family firms", *Family Business Review*, Vol. 18 No. 1, pp. 23-40.
- Zahra, S.A. (2010), "Harvesting family firms' organizational social capital: a relational perspective", *Journal of Management Studies*, Vol. 47 No. 2, pp. 345-366.
- Zambon, S. (2002), *Accounting, Intangible and Intellectual Capital: An Overview of the Issues and Some Considerations*, Working Paper 4, University of Ferrara, Ferrara.
- Zellweger, T.M. and Astrachan, J.H. (2008), "On the emotional value of owning a firm", *Family Business Review*, Vol. 21 No. 4, pp. 347-363.
- Zellweger, T.M., Kellermanns, F.W., Chrisman, J.J. and Chua, J.H. (2012), "Family control and family firm valuation by family CEOs: the importance of intentions for transgenerational control", *Organization Science*, Vol. 23 No. 3, pp. 851-868.

Further reading

- Wu, C.H. (2013), "Family ties, board compensation and firm performance", *Journal of Multinational Financial Management*, Vol. 23 No. 4, pp. 255-271.

Corresponding author

Anna Maria Moisello can be contacted at: annamaria.moisello@unipv.it