Family firms and the choice between wholly owned subsidiaries and joint ventures: A transaction costs perspective

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Integrating family business literature and transaction costs economics, we examine the effects of family control on entry mode choices. Using a dataset of 951 foreign investments in Italy from 2005 to 2015, we investigate the role of family involvement. After controlling for endogeneity, we find that if the investing company and the local are both family firms, joint venture is the preferred entry mode choice, while when only the investor is a family firm a wholly owned subsidiary is more likely. Overall, these findings show that family control has a relevant and so far fairly overlooked impact on foreign entry strategies.

INTRODUCTION

The analysis of entry mode (EM) determinants is one of the most relevant topics in the international business domain. Indeed, the selection of the EM and of the ownership level in the investment are critical choices for firms seeking international expansion, that affect not only profitability but also the overall risk and ultimately the success of the firms international strategies (H.-L. Chen & Hu, 2002). In the Transaction Cost Economics (TCE) framework, EM decisions are analyzed assessing the level of transaction costs and, consequently, the efficiency of the choice. While TCE has proved to be a valuable perspective to analyze firms' EM choices, its focus on the transactions features has largely ignored the ownership structure as a possible determinant. However, the extant literature shows that a firm's ownership and governance characteristics affect the company's strategies (Boellis, Mariotti, Minichilli, & Piscitello, 2016; Filatotchev, Strange, Piesse, & Lien, 2007), and this influence is particularly strong in the case of family firms. More specifically, family business literature shows that family firms have some specific characteristics that impact the ease of transacting a certain bundle of assets that are directly related to family strengths thus affecting EM choices. Examples of these resources have been described in the family business literature and are, to name a few: the family firms long-term orientation (Miller, Minichilli, & Corbetta, 2013), the family managers' emotional attachment to the firm (Miller & Le Breton-Miller, 2003), and the cohesion of the management team that promotes social capital (Arregle, Hitt, Sirmon, & Very, 2007). These assets are by-products of the family involvement in the businesses and, as a consequence, can be difficult to transfer affecting EM choices.

While we claim that some of the specific strengths of family businesses impact upon the tradability of family-related assets we also consider that family firms dysfunctionalities are relevant. Family owners typically attach special value to control (Gomez-Mejia, Makri, & Kintana, 2010; Verbeke & Kano, 2012). This attitude influences their decisions both when they are looking for a target or a partner in a foreign market and when they are the owners of the assets in the target market. It is the combination of the attitude of both the investors and of the local owners of the assets that will determine the final EM choice.

The few studies (Filatotchev et al., 2007; Pongelli, Caroli, & Cucculelli, 2016) that have empirically investigated this topic have validated the idea that family firms show some distinct attitudes when they select their EMs. However, none

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of these studies, to the best of our knowledge, have integrated extant TCE literature with family firm literature and included in their model also the local firm characteristics. In the present paper, we address these specific issues and we present a model of EM choices that integrates TCE analysis with family business literature. Using a sample of 951 deals made by multinational corporations (MNCs) from 42 countries investing in Italy, we focus our research on foreign investments, and more specifically on the choice between a greenfield joint venture and partial acquisition on one side, and full acquisition leading to a wholly owned subsidiary on the other side. Following previous studies () throughout this paper, the term wholly owned subsidiary (WOS) refers exclusively to full acquisition, and the term joint venture (JV) is used to refer to partial acquisition as well as a greenfield joint venture

Since both WOS and JV provide access to resources embedded in a local firm, we do not only look at the ownership and governance characteristics of the investors but also we take into consideration the ownership and governance features of the local, in our case Italian, company holding the complementary assets (Hennart, Sheng, & Pimenta, 2015). Thus, we do not include in our analysis greenfield WOS, because we are interested in investigating the role of corporate governance of both the foreign and the local firm on EM choice.

We present a model that, by expanding the present TCE theory of EMs, includes also family control, defined as the joint presence of family ownership and management, offering new insights into our current knowledge of foreign entry strategies.

The paper makes both theoretical and methodological contributions.

On the theoretical side, we complement existing TCE theory on EM choice, showing that ownership and governance characteristics of both the investor and of the local company are important features that have been previously overlooked in EM research. We also contribute to the nascent literature on the internationalization of family firms, and to the TCE theory (Verbeke & Kano, 2012). On the methodological side, we make two specific contributions. First, in order to identify family control, we ascertain the ultimate owner of each company involved in the deals reported in the dataset. This methodology allows us to achieve a high level of accuracy rarely attained in previous studies.

Second, we control for endogeneity (Shaver, 1998). While this empirical approach is common in EM

literature, it has been much less frequent in the family business literature. However, extant family business literature (Demsetz & Lehn, 1985; Villalonga & Amit, 2010) have argued that family ownership is not randomly distributed, hence, factors affecting family control could also affect EMs. Using a two-stage approach we address also this specific issue.

The remainder of the paper proceeds as follows. The succeeding section provides an overview of the TCE theory applied to EMs and family firms, and offers a comprehensive framework to analyze family firms' EMs. On the basis of this framework, in the second section, we formulate the hypotheses. We then describe in detail the sample, the data collection and the methodology used in the empirical analysis. The fourth section presents the results. The final section presents the discussion and conclusions of our findings.

THEORETICAL FRAMEWORK

In the context of the equity-based arrangement two main selection criteria have been generally adopted (Dikova & Van Witteloostuijn, 2007): the level of equity ownership that identifies the ownership modes (partial versus full ownership), and the establishment mode criterion (greenfield versus acquisition). We focus our analysis on the ownership mode, and in particular on the choice between WOS and JV. Following previous studies (Chang & Rosenzweig, 2001; S.-F. S. Chen, 2008; Dikova & Brouthers, 2016) we consider greenfield JV and partial acquisitions as a two different forms of the same kind of EM. This because, even if legally different, JV and partial acquisitions are both residual sharing agreements where the return is defined by the residual claim on profit generated by the shared ownership.

The extensive literature on EMs has identified many determinants of this choice: from the host and home country characteristics to the quality of institutions in the countries of origin, and from the MNC's size and R&D intensity to the industry sector of the local firm. However, only a few studies have investigated the effect of firm's ownership and corporate governance characteristics on EMs and, more specifically, the role of family control. Table 1 reports, to the best of our knowledge, all the studies that have investigated how family firms characteristics affects EMs. This table includes only empirical studies that have focused on an

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ownership-based EM alternative..

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Insert Table 1 about here

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Among the studies reported in Table 1, only Kao, Kuo, and Chang (2013) and Chang, Kao, and Kuo, (2014) used the TCE framework, but they did not consider family involvement as a specific asset as we do in this paper. We initially present a general theory of EMs using TCE, and thereafter we report our TCE view of family firms. Based on these complementary views we develop our main hypotheses.

The TCE theory of entry mode

According to TCE theory, firms choose EMs that minimize the transaction costs generated by the need to negotiate, monitor and govern transactions, and enforce contracts. More specifically, TCE affirms that firms prefer EMs with a higher level of control when transaction costs are high (Anderson & Gatignon, 1986). When this occurs, vertical integration, in the form of a JV or a WOS, is preferred to arm's-length transactions to bypass the costs generated by markets, or in the case of equity investments full ownership is preferred to partial ownership (Majocchi, Mayrhofer, & Camps, 2013). TCE literature has extensively investigated the determinants at the international level of transaction costs affecting EM alternatives with most of the studies focused on the characteristics of the assets that the MNCs transfer with the foreign investment decision. However, Gomes-Cassares (1989) and Hennart (2009) plausibly argue that EM decisions are based on transaction costs generated not only by the characteristics of the assets held by the investing firm (the MNC) but also by the characteristics of the assets that the MNC intends to control and which are owned by a local company in the host market. This view is coherent with the general theory of MNCs, as defined for example by Rugman and Verbeke (1990), who stressed that to justify foreign direct investments (FDIs) firms should bundle ownership-specific advantage (firm-specific advantage or FSA in Rugman and Verbeke (1990) terminology) with location advantages (country specific advantages or CSAs). However, local assets such as

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technical knowledge, consumer knowledge, stable relationships with local suppliers and political connections are often location bounded (Rugman & Verbeke, 2001) and also not freely available in the host country, for example because they are owned by a local firm. Hence, a comprehensive EM theory should consider both the rents of the entering firm (the MNC) and those of the local company who owns the complementary assets. Hennart (2009) made this point in his 2009 seminal paper where he presents a model that explains a firm's EM as being the result of the interaction between the MNC and the owner of the local assets. He considers knowledge as a typical example of an asset that, under certain conditions, can be subject to market failure given the high transaction costs of transferring it to the markets. Accordingly, he identifies two possible cases that lead to FDIs: the case when the asset owned by the MNC is difficult to transact but the local complementary asset can be efficiently bought in the host market; and the case when both assets are difficult to transact. In the first instance, the foreign company transfers internally the asset that it owns and sets up a WOS in the host country, acquiring full ownership of the local asset. This is the classic FDI case where a company that owns firm-specific knowledge acquires a company that owns a distribution network in a foreign country. The recent acquisition of the Mexican wireless company Lusacell by AT&T or the acquisition of the Brazilian distribution network Oticas Carol by Luxottica, the Italian producer of luxury eyewear with prestigious brands such as Ray-Ban or Oakley, are two examples of FDIs.

However, if both the MNC and the local firm own assets that are difficult to transact, a full acquisition is not a viable solution. In this instance, the MNC cannot acquire the necessary local complementary asset on the market and none of the companies involved find convenient to transfer the asset through arm's-length transactions. The efficient solution would be to bundle the assets using a JV, either in a new legal entity, as in the case of a greenfield JV, or through a partial acquisition whereby the MNC acquires just a portion of the shares in the local firm. In these cases, the return on the investment is obtained by becoming a residual claimant in the shared concern. The JV between Pfizer and the Chinese pharmaceutical company Hisun is a typical example of this kind of arrangement, with Pfizer providing R&D knowledge and operational capabilities and Hisun supplying local market outreach.

So, the definition of which kind of assets are difficult to transact is a fundamental step in order to develop a

comprehensive theory of EM. Many scholars have decisively argued that knowledge is an asset difficult to trade especially when it has a relevant tacit component (Arora, Fosfuri, & Gambardella, 2001). MNCs owning high proprietary technical and scientific knowledge would prefer a WOS rather than a JV, in order to protect their capabilities from the potential opportunistic behavior of local partners (Anderson & Gatignon, 1986). However, the tacit component is quite relevant also in the case of management and marketing skills. These capabilities are fostered and typically reside in the workers and routines of the firm and they are thus difficult to disentangle and trade. Based on previous findings, we claim that also family involvement typically promotes some specific abilities that can be firm-specific and difficult to transfer and replicate. Hennart, Majocchi and Forlani (2017) for example have shown that while family firms are generally less efficient compare to other kind of firms in their international expansion, they show some specific talent, linked to their family status, if they sell high-quality niche products and services. More generally, family businesses, wherein family executives have a strong emotional attachment, develop some managerial capabilities strictly bounded to the firm (Arregle et al., 2007; Gomez-Mejia, Cruz, Berrone, & De Castro, 2011).

Moreover, the same attachment to the firms that is at the heart of family business strength also explains the special value that family owners attach to firm control that allows families to purse their own preferences beyond maximizing economic value, as argued by the Socioemotional Wealth (SEW) literature (Gomez-Mejia, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007) and the bifurcation bias approach (Verbeke and Kano, 2017). This peculiar value of control affects the EMs of both the firms that enter in the market but also of those that are target, so that in their EM decisions family firms tend to include family values in their utility function deviating from straight efficency logic.

In the next section, we briefly discuss the asset-specific characteristics of family firms in a TCE framework and the effect of family attachment to control, then we develop our main hypotheses.

Family firms-specific assets and international entry modes

Do family businesses really develop distinctive firm-specific assets which are difficult to trade? Literature has shown that family businesses do have some specific strengths. .

Gedajlovic and Carney (2010) identified four main sources of non-tradable assets typically developed in family firms that are sticky and difficult or impossible to trade:

- the bonding form of social capital;

- the ability to transfer tacit knowledge;

- the bridging form of social capital;

- reputational assets.

The bonding form of social capital refers to all those "*features of social organization such as network, norms, and social trust that facilitate coordination and cooperation for mutual benefit*" (Putnam, 1995, p. 67). Within family firms (Arregle et al., 2007) coordination and cooperation are facilitated and promoted by the cohesion of the management team, since kinship typically promotes the development of common values and similar attitudes towards business and risk. The cohesion and reciprocal trust in the management team are also promoted by the long-term orientation in employment relationships, another typical trait of family firms (Ward, 1988). Moreover, the involvement, since childhood, of family members in the firm generates an emotional attachment to the company, thus encouraging family managers to act as loyal stewards (Miller et al., 2013). Managers are more likely to be motivated to share their knowledge and tend to behave altruistically towards family members regardless of their abilities and position (Le Breton-Miller & Miller, 2009).

In family firms the transfer of tacit knowledge, which, as mentioned previously, is difficult to codify, is facilitated both between family members and from one generation to the next. Family managers have common cultural backgrounds and a shared code of communication that facilitate common understanding. The bridging form of social capital refers to the external component of social capital, i.e. to the relations an actor maintains with other external actors. Family firms are stable in terms of ownership and management so that norms tend to be maintained across time and space, promoting the development of reciprocal trust with external actors (Hitt, Lee, & Yu, 2002) and allowing family firms to build strong relationships with external stakeholders.

Similarly, literature has shown that family firms make a point of promoting their reputational assets. The blurred borders between families and their firms, which often bear the name of the owners, generate an

incentive to promote and invest in a positive image and corporate social responsibility (Deephouse & Jaskiewicz, 2013). Empirical evidence confirms this view and shows that family firms tend to invest in their reputation and to act in a more socially responsible manner than businesses that are pressed by different owners to deliver immediate financial results[1].

The TCE characteristics of these four kinds of family assets are clearly identified by Gedajlovic and Carney (2010, p. 1157) who state that: "*they are ...very sticky to the party that has developed them, and their sale is often either impossible or subject to substantial trading hazards and transaction costs. Further, even when ... [these assets] such as tacit knowledge, bonding or bridging social capital, or reputational assets based upon perceived personal qualities can be effectively transferred, it is unlikely that they can flourish or be sustainable away from the organizational context in which they were developed.*" In other words, these family business-specific assets are FSAs difficult if not impossible to trade because they cannot be separated from the family business context that has promoted them.

This means that if a family firm want to bundle these not-tradable FSA with other assets located across borders it should internalize the transaction via a JV or a full acquisition. However, if a local family-controlled firm owns the local assets then a full acquisition will not be a viable solution. First, because this solution would change the nature or identity of the owner who has promoted the assets of interest. After an external acquisition, a family firm would no longer be a family business, and family business-specific assets will tend to disappear. Second, and more importantly, because, family owners are inclined to attach special value to control and they will tend to prefer solutions that imply shared controlled, such as partial acquisition or greenfield joint ventures, rather than accepting a third-party bid from an international acquirer and losing completely the SEW generated by control. Feldman, Amit and Villalonga (2016) have confirmed this attitude of family owners in their analysis of corporate divestitures of business units in family controlled firm. They found that in order to accommodate their unique preferences and extract "private benefits" family firms are less likely to undertake divestiture than their non-family counterpart. This family firm attitude

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[1] Family control can also be a liability hindering firm development. However, we do not consider this issue in our model since we claim that these limits do not directly impact on entry mode choices. For a review of the ambivalent role of family involvement see: Miller, Minichilli, & Corbetta, (2013)

means that, even when selling the whole firms is the more efficient solution for the shareholders from a financial point of view, family owners will tend to follow a different logic to preserve their SEW. The potential financial benefits generated by the bid are outweighed by the costs generated by the lack of control and the following absence of SEW associated with it.

HYPOTHESES DEVELOPMENT

In the previous sections, we reported the main features of the TCE bundling model when family firms are involved, showing that EM choices are influenced, among other factors, by the tradability of both the assets owned by the MNC and the firm in the host market (Brouthers & Hennart, 2007), and by the family attachment to firm control. When one or more of the companies involved in the foreign entry are family businesses, firm-specific assets can be generated that are difficult to trade and this - together with aversion of dilution of control - would affect EM choices.

Consequently, we developed a model that explains the choice between JV and WOS based on the characteristics of the owner of the assets in both companies involved.

We consider three main cases that are the basis for our three hypotheses. The case of both MNCs and the local firms being family, the case of a family MNC investing in a non-family firm and the case of a non-family MNC interested in assets owned by a family business.

When both the MNC and the local firm are family businesses then both of them own assets - family related - which are difficult to evaluate and to transact. In this case, acquisition is not a viable alternative (Balakrishnan & Koza, 1993). On the contrary, JV is an efficient solution since it allows both companies to remain under family control and, at the same time, to bundle the local with the MNC assets which are also difficult to assess. The valuation problem is solved allowing both firms to be remunerated through the residual profits generated by the JV.

Furthermore, since both firms are family controlled they should share the same attention to family values. This common *familiness* simplifies relationships between family MNCs and local family firms because they share the same long-term orientation, the desire to preserve control over the company, and the involvement

of family members in both ownership and management. The sharing of this similar *modus operandi* facilitates a JV between two family firms. Pothukuchi, Damanpour, Choi, Chen, and Park (2002) find that the similar corporate cultures of partners promote performance in a JV, and similarly, an extensive literature identifies cultural integration problems as one of the main drivers of JV failures (Lodorfos & Boateng, 2006). However, while previous studies have examined the role of culture in general, only a few have considered the role of family control, even if anecdotal evidence indicates that family firms have a tendency to form JVs with other family firms. For example, Boyd, Goto, and Hollensen (2010) report the case of the JV formed in Poland by Danfoss, a Danish firm and world leader in the production of products for cooling, and Saginomy, a Japanese producer of high-quality bellows for automatic controls. According to the managers involved in the deal the main reason behind the success of the agreement was their common approach to business and shared long-term orientation, or, as the Danfoss CEO declared (Boyd et al., 2010, p. 260), "*because two family-owned companies join together*". This evidence is in line with the results of Barkema and Varmeulen (1997) who found that JVs between firms with different long-term orientation attitudes tend to have a lower rate of survival. However, in their analysis, they only control for the level of long-term orientation in national culture and do not test the role of family status which is a firm-specific characteristic. Family business literature provides significant evidence that family firms are more long-term oriented than other kinds of firms (Miller & Le Breton-Miller, 2005). Therefore, we expect that when the firms involved are both family firms this will further promote JVs. Accordingly, we formulated our first hypothesis:

> *H1. If both the MNC and the local firm are family controlled, they are more likely to establish a JV rather than a MNC's WOS.*

Our second case refers to a family controlled-MNC interested in assets owned by a local non-family company. In this case, the MNC owns specific assets that are difficult to transact while the local assets to be bundled are not family controlled. The high transaction costs in transferring the family-specific assets internationally will, everything else equals, favor a full acquisition. Moreover, in order to guarantee family

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control, the MNC will prefer a WOS to a JV. A family MNC, owning high specific assets, would prefer to acquire the full ownership of a non-family local company, as in so doing it guarantees the possibility to internationally transfer the family-specific assets, bundling them with the required complementary assets owned by the local firm. Finally, with a full acquisition of the local assets, the acquirer will maintain the family feature of the business that is its ownership specific advantage.

Thus, we posit:

H2. If the MNC is a family business and the local firm is not, the MNC is more likely to fully acquire the local firm establishing a WOS, rather than to make a JV.

Our third case considers the influence of family control when the MNC is a non-family firm but the local firm is a family business. In this case we argue that the family owners are not prone to accept a bid on the full share capital but will prefer a JV to maintain some degree of control and the related SEW. Moreover, a full acquisition would change the nature of the acquired company whereby it loses its family character. On the contrary, a JV will not change completely the nature of the owner of the local asset. In this case, keeping everything else constant, we expect that family control will promote a JV rather than a full acquisition. Moreover, a JV is a better solution because, since the family-specific assets cannot be separated from all the other assets of the firm, the strategy of acquiring the entire firm and then selling solely the resources that are not needed, is not viable. Since the assets generated by family involvement are significantly linked to the family management's motivation, JVs present the additional advantage of preserving the emotional attachment of family members. JVs lower the risk of integrating and motivating the management, a risk that is high in acquisitions (Shimizu, Hitt, Vaidyanath, & Pisano, 2004). Thus, JVs assure that the local family managers will be motivated to continue to act in the interest of the family firm, sharing the bundle of tacit knowledge with the MNC. The scarce empirical evidence produced in the literature so far confirms this. When studying acquisition in a sample of Continental European companies Caprio, Croci and Del Giudice (2011) found that family control in the target firms reduces the chance of being acquired by a third party.

Therefore, our last hypothesis is:

H3. If the MNC is a non-family company and the local firm is a family business, they are more likely to establish a JV rather than a MNC's WOS.

METHODOLOGY

Data and Sample

Our sample was collected by two different Bureau van Dijk databases: Zephyr for deals, and Orbis for firm-specific data. We only considered investments (full and partial acquisitions, and greenfield JVs) made by foreign MNCs in Italy, involving an Italian company as target/partner. We consider Italy as our main target country because it is a convenient context to study family firms since 71percent of companies in the country are family owned (Bianco, Golinelli, & Parigi, 2008). From Zephyr, we collected all deals made by foreign companies in Italy in the period from 2005 to 2015. We selected the deals according to two criteria: the foreign company should have no initial stake in the Italian company, and the selected deal should allow the MNC to take control of at least 10percent of the stake (Cuypers, Ertug, & Hennart, 2015; Hennart & Larimo, 1998). Our initial sample comprised 1710 deals, and for every deal we collected data on both the investor and the target/partner firm in Italy. More specifically, we collected data on ultimate ownership for both companies and then we classified every deal according to the type of EM choice.

Our second step was to define family firms. A large number of studies define family firms on the basis of the first shareholder type (Arregle, Naldi, Nordqvist, & Hitt, 2012), and on other requirements inherent in the management and the vision of the family. However, to rely on first shareholder type can be misleading. This is due to the use of mechanisms such as pyramiding, multi-control chains, and cross-holding, which are quite frequent around the world, producing a wedge between share ownership and control (Bertrand, Johnson, Samphantharak, & Schoar, 2008). Through these mechanisms, an individual or an entity might have more power over a firm than the control exerted by the first shareholder exclusively through the shares that it owns directly. Thus, the first shareholder might not coincide with the ultimate owner of the company, the actual owner of the firm which holds control over it and the power to affect its strategies. In order to identify the ultimate owners we acted in accordance with Faccio and Lang (2002) and considered all the links that were

larger than 5percent of the total voting rights for each chain, and we summed up these percentages for each link. Furthermore, to distinguish firms owned by a specific owner from companies with dispersed ownership we used the common threshold of 20percent (Claessens, Djankov, & Lang, 2000).The ultimate owner is the entity with the highest percentage of controlling power along with all the chains of shareholders. A practical example can clarify the discrepancy between the first shareholder and ultimate owner. In Figure 1 we present the complete 2013 map of the shareholders of the group Moët Hennessy – Louis Vuitton S.E. (LVMH), a world leader in luxury with extensive investments in Italy, owing iconic brands such as Loro Piana, Fendi, Christian Dior, and Bulgari.

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Insert Figure 2 about here

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The first shareholder of LVMH is Financiere Jean Goujon, a financial company that owns 57.31percent of the company's shares. However, as reported in the map, Financiere Jean Goujon is owned by another company. By calculating the percentage of control of all shareholders in the figure, it is possible to see that the ultimate owner is not the first shareholder. In this example, the Arnault family has two links to LVMH, it owns 5.28percent directly and then exerts another 57.31percent of control through a pyramidal chain, making a total of 62.59percent[1]. This example shows how important is to discriminate, in corporate governance studies, the ultimate owner from the first shareholder.

Using this methodology, we collected information on the ultimate owner for each company involved in the deal, both the local firm and the MNC. Data on the ultimate owner were collected from Orbis and complemented with information obtained using company websites, web sources and Italian and international press sources as reported by the Lexis-Nexis database. After carefully defining the full chain of control for both companies using the above-mentioned methodology, we are confident that we obtained a very precise and accurate dataset in order to classify companies in family controlled and non-family firms.

After dropping observations which had crucial data missing, we remained with a sample of 951 observations.

Dependent variable

Our dependent variable is binary and takes the value of 1 when the deal is a JV, i.e. when the MNC acquires a percentage of stakes lower than 95percent of the local or owns less than 95percent of equity in a greenfield JV, and 0 in the case of a WOS in which the MNC owns more than 95percent of equity (S.-F. S. Chen & Hennart, 2002; Yiu & Makino, 2002). Thus, an investment is denoted as JV if the MNC holds an equity share ranging from 10percent to 95percent (Hennart & Larimo, 1998).

Independent variables

We followed previous studies (Fernández & Nieto, 2006; Singla, Veliyath, & George, 2014) and we defined as "family firms" all those that are owned and managed by a family. Therefore, we considered as family controlled all those firms where the ultimate owner is an individual or a family, and where at least one member of said family is an officer or a director. Our main independent variables are binary, and they identify every possible combination of the family status of the firms involved in a deal. For every deal, we considered three alternatives that consider both the investing and the local firm: both the MNC and the local can be family firms (*Family_Family*), or just one is a family business, either the MNC (*Family_Non-Family*) or the local firm (*Non-Family_Family*).

Control variables

We controlled for several factors that may affect EMs, besides that of family involvement. Since for each EM case we consider both sides of the deal (the investor and the local firm) some variables refer to the MNC and others to the local company, and some are even relative to the value of both firms.

Most of the studies focusing on the choice between JV and WOS test the role of knowledge using MNC's R&D intensity (Makino & Neupert, 2000). The core assumption behind this variable is that MNCs with higher R&D intensity develop specific knowledge and prefer WOS over JV in order to have control of their knowledge assets. We controlled for the effect of knowledge using the R&D intensity of the MNC

(*MNC_RDintensity*). The role of this variables in our context is crucial since this is the typical variable used in previous studies (******) to measure asset non-tradability. Firms with specific country experience tend to prefer a WOS over a JV because their need for a local partner decreases as local experience increases. We measured the previous experience of the MNC in Italy (*Experience*) with a binary variable coded 1 if the MNC had previous investments in Italy. Literature is unanimous in arguing that larger MNCs prefer full acquisition to a JV (Chiao, Lo, & Yu, 2010). We measured the MNC's size using the natural logarithm of the number of employees (*MNC_Size*). However, when the local firm is large or listed, JVs tend to prevail. We controlled for these effects using the natural logarithm of the number of employees of the local firm (*Host_Size*) and a dummy (*Host_Listed*) for listed firms. We also controlled for the relative size of the two firms using the ratio of total sales between the two (*Relative_Size*) (Makino & Neupert, 2000). Previous studies found mixed effects of the industry growth in the host country. To control for this, we included a variable (*Host_IndustryGrowth*) measured as the percentage growth of the gross value added by NACE industry 2-digit. Since manufacturing companies tend to be the target of full acquisition more frequently than services firms, (Dikova & Van Witteloostuijn, 2007) we also entered a dummy variable (*Host_Manufacturing*) taking the value of 1 if the local firm is active in the manufacturing sector. Firms entering into new businesses prefer a JV over a WOS given their lack of knowledge of the investment (Hennart & Larimo, 1998). Thus, we included a dummy variable which takes the value 1 if the local and the MNC are active in the same macro industry (*Same_Industry*). Previous studies used different measure of distance with the host market to predict EMs (Puck, Holtbruegge, & Mohr, 2009). We test for the role of psychic distance using the Dow and Karunaratna (2006) index (*Psychic_Distance*) (Slangen & van Tulder, 2009). To control for the MNC's home country effect we used three dummy variables defining large geographical areas: *Europe* (our baseline dummy), *America*, and *Rest of the World*. Finally, given the longitudinal nature of our data, ranging from 2005 to 2015, we controlled for time effects. More specifically, we construct a dummy (*Crisis*), measuring the possible effect of the 2008-2009 international financial crisis. This variable is our baseline while other two dummies refer to 2005-2007 (*Pre_crisis)* and to the 2012-2015 (*Post_crisis*) periods.

The final model that we estimated is the following:

$Pr\ (JV=1) = a_0 + \beta_1\ Family\_Family + \beta_2\ Non\text{-}Family\_Family + \beta_3\ Family\_Non\text{-}Family + \beta_4\ MNC\_RDintensity + \beta_5\ Experience + \beta_6\ MNC\_Size + \beta_7\ Host\_Size + \beta_8\ Host\_Listed + \beta_9\ Relative\_Size + \beta_{10}\ Host\_IndustryGrowth + \beta_{11}\ Host\_Manufacturing + \beta_{12}\ Same\_Industry + \beta_{13}\ Psychic\_Distance + Geogr\ area\ dummies + Year\ effect + \varepsilon$

JV is our dependent variable that equals 1 if the entry mode is a JV; β are the parameters to estimate and ε is the error term.

Tables 2 and 3 report the descriptive statistics for the continuous variables and the frequencies of the binary variables. Table 4 presents the variance inflation factors (VIFs) and the correlation matrix. Both the VIF values - all below 2 - and the low correlation coefficients suggest that multicollinearity is not a concern in this study.

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RESULTS

Given the binary nature of our dependent variable, we used logistic regressions to estimate five different models, as reported in Table 5.

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Insert Table 5 about here

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Model 1 includes only the control variables and is our baseline model, while in the succeeding models we enter the variables defining the family status of the MNC and of the local firm. Hence, Model 4 shows our full model with all independent variables with column 4bis reporting the marginal effects. Our discussion of

results is based on this model.

Hypothesis 1 argues that when both the MNC and the local firm are family firms then a JV is more likely. The coefficient of our dummy *Family_Family* is positive and significant ($p<0.05$), supporting this first hypothesis. The marginal effect shows that if a deal involves two family firms, the probability of a JV is 13.94 percent higher than an acquisition. Hypothesis 2 argues that a family MNC is more likely to establish a WOS rather than a JV if the local is a non-family firm (and the MNC is a family firm). The coefficient of the variable *Family_Non-Family* is negative and significant ($p<0.10$). Thus, our second Hypothesis is also supported. The probability of a JV, in this case, decreases by 8.67 percent. Our third hypothesis is also supported since results in Model 4 show a positive and significant coefficient for the variable *Non-Family_Family* ($p<0.01$), when the MNC is a non-family business and the local firm is family controlled. The marginal effect is equal to 11.72 percent.

While some controls (*Experience*, *MNC_Size*, *Host_Size*, *Relative_Size, Same_Industry, and Psychic_Distance*) are not significant, the others are significant and confirm previous results. The *MNC_RDintensity* variable is negative and significant ($p<0.05$), confirming that MNCs with strong technological capabilities prefer WOSs rather than JVs to protect these valuable assets (Makino & Neupert, 2000). This result is coherent with previous TCE-based studies on EMs.

The positive and significant effect ($p<0.01$) of the *Host_Listed* coefficient confirms that listed companies have a higher probability of being involved in a JV rather than of being acquired.

The coefficient of *Host_IndustryGrowth* variable is positive and significant ($p<0.05$) confirming that firms investing in growing sectors tend to prefer JVs (Hennart, 1991). The negative and significant coefficient ($p<0.01$) of the variable *Host_Manufacturing* confirms, as expected, (Yiu & Makino, 2002) that if the local firm is a manufacturing firm a JV is less likely.

The stability and the overall fit of the estimations across models are adequate. The Hosmer–Lemeshow tests for goodness of fit (Hosmer & Lemeshow, 2004) are reported at the bottom of Table 5, and all models show values confirming a good fit. The test marks a good fit for the logistic regression when it yields a large p-value, while a significant test shows the opposite (Qian & Delios, 2008). For example, our full model of the Hosmer-Lemeshow statistic reports a χ^2 value with 8 degrees of freedom equal to 6.50 ($p=0.5918$) with all

the expected frequencies greater than the threshold value of 5. All models show high predictability since the value of the observations correctly classified is stable and in Model 4 is equal to 70.87 percent, in line with similar studies (Slangen & Hennart, 2008). Overall, these results support the conclusion that the goodness fit of the models is fully satisfactory.

Endogeneity concerns and robustness tests

One major concern in family business research is endogeneity. Research has shown that the probability of being a family firm is not randomly distributed (Demsetz & Lehn, 1985; Villalonga & Amit, 2010). If the factors explaining family status of firms also affect the EM choices, then endogeneity issues should be addressed in order to avoid a biased estimation. In order to solve this issue, we performed a two-stage logistic regression using instrumental variables as suggested by Semadeni, Whiters, and Certo (2014). Since we have two possible endogenous variables, namely the family status of the investor and that of the local firm, we estimated two different regressions in our first stage (Angrist & Pischke, 2009) with three exogenous instrumental variables. However, to avoid biased coefficients, the selected instrumental variables should explain the endogenous regressors but should not be correlated with the errors of the second stage. To find variables strongly correlated with the endogenous variables but not with the error term in the second stage we followed previous studies about family firm predictors. Villalonga and Amit (2010) argue that the level of tangible assets owned by the firm is a proxy for the external financing needs that dilute family ownership as the firm grows. When capital intensity grows family ownership tends to decrease. Therefore, we used the amount of tangible assets (*TangAssets*) as our first instrumental variable. Our second instrument is based on the argument that family ownership is more concentrated in sectors where the amenity potential is greater (Demsetz & Lehn, 1985). By amenity potential they refer to the benefits generated by the type of goods produced by the firms. Examples of these businesses are professional sports clubs, mass media, food, and fashion. We expected that firms operating in one of these industries would be more likely to be family controlled and we defined this variable as *Amenity*. Our third instrumental variable is a dummy (*Regulation*) which takes the value of 1 when the industry sector is a regulated sector (telecommunications, utilities, and

finance). Regulation limits the leeway available to owners and sets barriers to the options available to managers. These effects of regulation tend to discourage family ownership in these sectors (Demsetz & Lehn, 1985).

Additionally, to meet the exclusion restriction a good instrumental variable must not affect the dependent of the second stage regression in one way, other than through the independent variables. None of the three variables is correlated with the dependent variable of the second stage[2], and none of them have ever been considered in the literature as a determinant of entry mode.

The first stage model, that also includes the controls of the second stage is the following:

$Y_i = a_0 + \beta_1 \, TangAssets + \beta_2 \, Regulation + \beta_3 \, Amenity + 2^{nd} \, stage \; Control \; variables + \varepsilon$

Where Y_i is a binary variable measuring the family status for the acquirer (Model 1, Table 6) and for the target company (Model 2, Table 6). The estimation results of the first stage for the family status of both the investor and the target firms are reported in Table 6.

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Insert Table 6 about here

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To assess the relevance of the instruments used in the first stages we used the F-test as suggested by Semadeni et al. (2014). Literature (Stock & Yogo, 2005) states that a significant F-test higher than 10 allows to reject the null hypothesis that the instruments are jointly equal to zero. In our case the values of the F-test, for both models, are higher than 10 and statistically significant confirming the validity of our instruments and we could safely reject the null hypothesis of weak instruments. The instruments used in the first stages are mostly significant and have the predicted signs. The variable *TangAssets* is negative and significant only in the model estimating the family status of MNCs, the *Amenity* potential is positive as expected and significant in the second model, while the variable *Regulation* is strongly significant and negative as expected in both models.

Our complete second stage model, controlling for endogeneity, is reported in Table 5 as Model 5.

The probability that if both firms are family businesses JV is the more likely outcome is confirmed. The *Family_Family* variable has a positive sign and is significant (p<0.10), confirming our first hypothesis. Similarly, our second hypothesis, that argues that non-family MNCs are more likely to make a WOS rather than a JV if the target firms are family controlled, is confirmed. The variable *Family_Non-Family* is negative and significant (p<0.05). On the contrary, the *Non-Family_Family* variable is not significant, hence we cannot claim that, after controlling for endogeneity, our third hypothesis is confirmed.

To assess the validity of our results we also performed numerous robustness checks exploiting available data. First, we used a different definition of our dependent variable. In place of the binary variable to define the ownership mode we used the percentage of ownership owned by the investor, and we used Tobit methodology because the dependent variable is censored with a minimum value of 10percent and a maximum of 100percent. Results confirmed our findings, as is the case when we used probit methodology rather than logistic with a dependent binary variable. We also used different sample definitions. Results were consistent changing the dependent variable definition, and using as threshold to define a JV the 80percent and 100percent (Yiu & Makino, 2002). Results were consistent when we excluded greenfield joint ventures and considered only the alternative between partial versus full acquisitions. Similar results were obtained excluding single countries from the sample. Results were not driven by a specific country of origin. We estimated the model using the cluster option for the geographical area of origin and results are consistent. We also ran the regressions using different thresholds from the standard 20percent to define the ultimate ownership. The hypotheses are not supported when we change the family firm definition using only ownership as a criterion, and we do not consider management. This result confirms that family firm characteristics are determined not only by ownership but by ownership combined with management. Finally, we checked the robustness of our results using different definitions of the control variables. We considered the number of employees rather than the total volume of sales in the *Relative_Size* measure and we considered a different definition of industries using the 3-digit and the 4-digit Standard Industrial Classification (SIC) code to measure the variable *Same_Industry*. We also run the regressions using a categorical variable with the value of each year. All these supplementary regressions support our main

results.

DISCUSSION AND CONCLUSIONS

While recent literature (Pongelli et al., 2016) has argued that firm's ownership and corporate governance features affect EMs , the studies investigating family control on EMs have been very limited thus far. The relatively small number of studies is somehow surprising given that family firms are the most common type of firms both in Western economies and in emerging countries, and given the extensive findings that show that family control affects internationalization strategies (Fernández & Nieto, 2006; Majocchi & Strange, 2012). In the present paper, we try to contribute to the debate on this issue from both the theoretical and the methodological point of view. First, we integrate current TCE theory of EMs with family business literature. Based on the latter we identify a series of family firm characteristics that are peculiar and idiosyncratic to family firms. These characteristics represent an asset that firms could not easily sell on the market because they are difficult to define, codify and assess, and because they are intrinsically linked to the firm. In other words, under certain conditions, *familiness* can be a non-tradable asset. Moreover, the high propensity of family firms to preserve control affects the EMs when at least one of the companies involved is controlled by a family . Most of the EM literature considers knowledge as the typical asset which is difficult to trade. We agree but we argue that the family status similarly impacts upon firm's assets, promoting some specific family-linked assets, such as stronger managerial motivation or the long-term view of family firms (Verbeke & Kano, 2010) which are difficult to transact because of the governance features. Based on this we propose a theoretical framework that includes the family features of both the investing and local company. Our findings confirm that the corporate governance characteristics of the owner of the assets are relevant to determining the EM choice, contrary to previous arguments which overlook this aspect. In some cases, the assets that MNCs want to control in the host market are not freely available as they are owned by a local firm and not easily tradable. If the complementary local assets are owned by family firms, which aim to maintain the control of the firm, then this combination creates a set of unique assets that are difficult to trade and generate additional transaction costs that affect the EM choice.

This theoretical framework allows us to posit that family control affects EMs and that the family status is a relevant determinant of this choice both for the investing and the local firm. The empirical analysis, based on a unique dataset, further confirms this view after controlling for possible endogeneity issues.

Our findings show that family firms prefer to enter with full control mode when they want to acquire assets in a country that are not owned by other family firms. However, when assets in the host country are owned by another family business then, *ceteris paribus*, JV is the most likely outcome. The results suggest that future research on EMs should control also for firms' family status. To avoid specification errors empirical studies on EMs should control also for family status.

Furthermore, an extensive literature argue that large cultural distance has a negative effect on JVs while cultural similarity promotes JVs survival. However, these studies focus only on psychic, institutional and geographic distances and do not consider ownership. We find that the corporate cultural similarity in the form of family control (X) between partners, facilitate JVs, corroborating the findings of Swinth and Vinton (1993) who suggested that the shared values and goals of family firms bridge the cultural barriers generated by the other kinds of distances. However, while we recognize that family involvement between parties facilitates the formation of JVs, we focus our attention on the structural factors explaining EMs ownership. We frame our analysis on these structural factors and more specifically on transaction costs attributes that, in our view (Chiao et al., 2010; Hennart, 2009) offer a logically consistent account of the determinants of JVs. More specifically, the TCE framework we adopted shows that when both partners are family firms then the best option for the parties involved is to set up a residual-sharing contract, namely a JV that allows both parties to be compensated for the assets transferred in the deal on an *ex-post* basis, i.e. based on the profit generated by the deal. Since both partners are family firms and since familiness is an essential but not tradeable asset, the optimal solution is to preserve the family status of both partners with a greenfield JV or a partial acquisition.

On the contrary WOS is the preferred solution when MNC is family controlled and the local target is a non-family firm. This EM allows the MNC to transfer internationally its family-specific assets maintaining the full control. The family MNC fulfils its aspiration to maintain full control and does not face any obstacle from the governance characteristics of the local firm. Indeed, the MNC acquires the full ownership of the

local firm so that the new merged entity still remains family-controlled.

Our results, after controlling for endogeneity concerns, do not allow to draw any conclusion about the third case i.e. what is the optimal solution when a non-family MNC target a family local firm. This case surely deserves further attention and additional research.

These results offer many different insights into current EM and family business research. First, we confirm that EM literature should also include local company characteristics in the analysis. EM research predominantly investigates this choice exclusively from the point of view of the investing company. Foreign entry strategies are not unilateral decisions and are also affected by the targets' characteristics (Hennart, 2009; Hennart et al., 2015). In our analysis, we take into consideration the potential effect of control and corporate governance of both MNCs and local companies.

Second, this paper contributes to the ongoing theoretical efforts to integrate corporate governance literature with TCE (Verbeke & Kano, 2017). TCE has been largely used to study EMs, but rarely applied to family firms. We present a model of family firm EM choice and we test our hypotheses based on the assumption that family firms are different from other firms. Results confirm our hypotheses that family firms' behaviors are affected by the peculiar asset they own (Verbeke & Kano, 2012).

Third, we complement previous studies on EM that test the role of cultural similarity (Li, Lam, & Qian, 2001). We show that family status is a fundamental component of cultural affinity and that it should be controlled for in EM studies. When both firms are family firms it increases the odds of a JV.

Fourth, from an empirical point of view, we took particular care to guarantee the accuracy of the definition of family firms. We identify the family status on the basis of the ultimate owner, and do not use the first shareholder, as does most of the previous literature on the internationalization of family firms. In this way, we identify the ultimate owner through control as opposed to ownership rights, taking into account the shareholders' habits to control firms through pyramiding, multiple control chains, and cross-holding.

Fifth, we address endogeneity issues. While this has been a common practice in EM research after Shaver's (1998) seminal paper this is not the standard in family business research.

Despite these important implications, this study also has limitations that could provide hints for further research and refinement. First, our analysis is limited to just one destination country. Italy is surely a relevant

context since it has a large number of family firms but further research applied to other countries could help to validate our findings. Second, given data limitation we could not control for some important variable such as the advertising intensity or the concentration ratio in the target industry. Once again further research could refine our results including also these controls in the analysis.

Endnotes

[1]The ownership rights of the Arnault family are: 5.28% + (57.31%×100%×68.80%×99.74%×73.44%) = 34.16%. The controlling power of the Arnault family over LVMH is: 5.28% + 57.31%= 62.59%.

[2] The correlation of the three instrumental variables *TangAssets*, *Amenity* and *Regulation* with the dependent variable EM is 0.127, 0.046, and 0.046, respectively, for the MNC; 0.067, 0.075, and 0.178, respectively, for the local firm.

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Figure 1 Shareholders of the group Moët Hennessy – Louis Vuitton S.E. (LVMH)
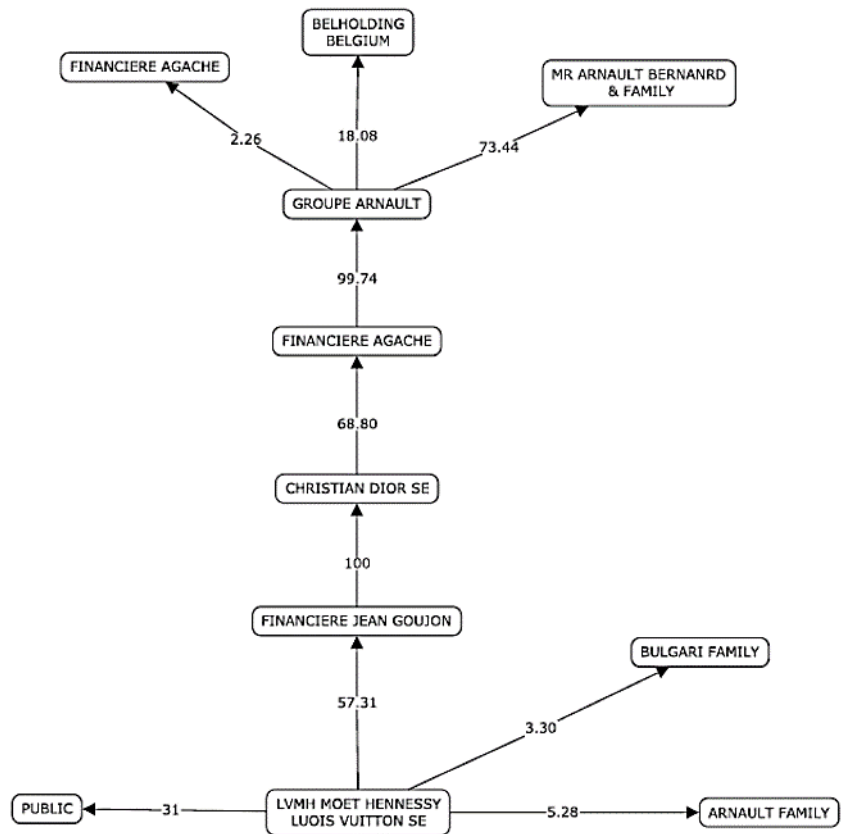
Table 1 Entry modes and firm's ownership and corporate governance characteristics

Study	Journal[a]	Theory[b]	Sample (time covered)	Entry mode studied
Compagno et al. (2005)	IJGSB		Entries by 221 Italian SMEs	Indirect export; direct export; contractual partnership; equity JVs; FDIs
Filatotchev et al. (2007)	JIBS	AT	Taiwanese FDIs in China (1999)	% Equity stake
Claver et al. (2009)	FBR	U	Entries by 92 Spanish family firms	Exports; contractual agreements; JV; WOS
Abdellatif et al. (2010)	JFBS	AT	759 entries by Japanese firms	JV vs WOS
Kuo et al. (2012)	EMJ		1550 entries by 492 Taiwanese listed firms (1996-2006)	JV vs WOS
Kao et al. (2013)	JMO	TCE	1644 entries by 505 Taiwanese listed firms (1999-2008)	JV vs WOS
Singh and Wyrobek (2013)	IJofBIR	AT	Entries by approximately 232 family firms (from US and Poland)	Sales agreement; sales representative; JV; subsidiary with a foreign partner
Boyd and Ulrich (2014)	IJGSB	RBV	Entries by 177 Danish SMEs	Direct sale; online sale; agent/distributor; JV/strategic alliance; WOS; other such as incubator offices, own man-in offices
Chang et al. (2014)	IBR	TCE	1237 entries by 428 Taiwanese listed firms (1998-2007)	JV vs WOS
Chiu (2015)	AEB		2451 entries by Taiwanese firms (1999-2007)	JV vs WOS
Pongelli et al. (2016)	SBE	SEW	368 entries by 204 Italian firms (1998-2012)	WOS; JV; contractual agreement; export
Dick et al. (2017)	EJIM	RBV	Entries by 160 Austrian and German firms	Export vs FDI

[a] IJGSB International Journal of Globalisation and Small Business; JIBS Journal of International Business Studies; FBR Family Business Review; JFBS Journal of Family Business Strategy; EMJ European Management Journal; JMO Journal of Management and Organization; IJofBIR International Journal of Business Innovation and Research; IBR International Business Review; AEB Advances in Economics and Business; SBE Small Business Economics; EJIM European Journal of International Management
[b] AT Agency Theory; U Uppsala model; RBV Resource Base View; TCE Transaction Cost Economics; SEW Socioemotional Wealth.

Table 2 Descriptive statistics of the continuous variables

Variable	Mean	S.D.	Min	Max
MNC_RDintensity	0.1131	0.6188	0	5
MNC_Size[a]	19025.76	52365.72	1	439401
Host_Size[a]	1744.855	10483.43	1	147865
Relative_Size	2.1492	3.7811	-0.0041	18.2801
Host_IndustryGrowth	0.0068	0.0628	-0.6	0.48
Psychic_Distance	1.1753	1.1753	0.45	7.79

[a] Untransformed values.

Table 3 Absolute and relative frequencies of the binary variables

Variable	Absolute frequency	Relative frequency
Family_Family	71	7.47%
Family_Non-Family	129	13.56%
Non-Family_Family	261	27.44%
Host_Listed	44	4.63%
Experience	250	26.29%
Host_Manufacturing	415	43.64%
Same_Industry	440	46.27%
America	122	12.83%
Rest of the World	62	6.52%
Pre_crisis	235	24.71%
Post_crisis	447	47.00%

Table 4 Correlation matrix[a]

Variables	VIF	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. JV	1.14	1.													
2. FF[b]	1.14	0.026	1.												
3. FNF[c]	1.12	-0.077	-0.113*	1.											
4. NFF[d]	1.26	0.073	-0.175*	-0.244*	1.										
5. MNC_RDintensity	1.08	-0.032	0.073	0.000	-0.004	1.									
6. Experience	1.12	0.031	0.030	-0.020	-0.121*	0.049	1.								
7. MNC_Size	1.51	0.004	0.051	-0.063	0.001	0.179*	0.239*	1.							
8. Host_Size	1.57	0.104*	0.018	-0.014	0.032	0.105*	0.038	0.203*	1.						
9. Host_Listed	1.33	0.222*	-0.044	0.044	0.010	0.124*	0.050	0.092*	0.422*	1.					
10. Relative_Size	1.37	0.067	-0.033	0.064	-0.028	0.008	-0.134*	-0.359*	0.252*	0.105*	1.				
11. Host_IndustryGrowth	1.07	0.082	-0.021	0.008	-0.109*	-0.012	0.064	0.065	0.005	-0.002	0.042	1.			
12. Host_Manufacturing	1.19	-0.129*	0.032	-0.014	0.105*	0.018	-0.049	0.066	0.244*	-0.053	-0.019	-0.044	1.		
13. Same_Industry	1.12	-0.016	0.057	-0.054	0.044	-0.012	0.035	0.246*	0.056	-0.004	-0.174*	-0.002	0.179*	1.	
14. Psychic_Distance	2.05	0.088*	0.017	0.004	0.040	-0.027	0.003	0.021	-0.050	-0.059	-0.034	0.024	0.093*	0.053	1.

[a] Geographic and Time effects included but not reported. The variance inflation factors for these variables are: America = 1.31; Rest of the World = 1.97; Pre_crisis = 1.46; Post_crisis = 1.54.
[b] Family_Family.
[c] Family_Non-Family.
[d] Non-Family_Family.

Table 5 Logistic regression results[a,b]

Variables	Model (1)	Model (2)	Model (3)	Model (4)	(4bis)[c]	Model (5)
Family_Family		0.541*	0.461	0.727**	0.1394	0.061*[d]
		(0.291)	(0.293)	(0.307)		(0.0346)
Family_Non-Family			-0.663***	-0.452*	-0.0867	-0.061** [d]
			(0.245)	(0.254)		(0.0250)
Non-Family_Family				0.611***	0.1172	-0.007 [d]
				(0.184)		(0.0209)
MNC_RDintensity	-0.290**	-0.310**	-0.305**	-0.308**	-0.0590	-0.355***
	(0.129)	(0.132)	(0.129)	(0.133)		(0.132)
Experience	0.102	0.0933	0.0835	0.141	0.0270	0.256
	(0.174)	(0.175)	(0.177)	(0.179)		(0.209)
MNC_Size	-0.0116	-0.0135	-0.0146	-0.0154	-0.0030	-0.0214
	(0.0253)	(0.0254)	(0.0253)	(0.0257)		(0.0257)
Host_Size	0.0537	0.0521	0.0471	0.0426	0.0082	0.0323
	(0.0398)	(0.0399)	(0.0398)	(0.0405)		(0.0432)
Host_Listed	2.076***	2.123***	2.190***	2.170***	0.4160	2.133***
	(0.397)	(0.403)	(0.405)	(0.408)		(0.412)
Relative_Size	0.0211	0.0218	0.0243	0.0274	0.0052	0.0378
	(0.0222)	(0.0224)	(0.0224)	(0.0229)		(0.0244)
Host_IndustryGrowth	2.171*	2.185*	2.181*	2.471**	0.4737	3.120**
	(1.217)	(1.227)	(1.223)	(1.247)		(1.327)
Host_Manufacturing	-0.647***	-0.651***	-0.649***	-0.694***	-0.1331	-0.741***
	(0.160)	(0.160)	(0.161)	(0.162)		(0.177)
Same_Industry	0.0419	0.0329	0.0283	0.0257	0.0049	-0.0668
	(0.156)	(0.156)	(0.156)	(0.158)		(0.161)
Psychic_Distance	0.101	0.0936	0.100	0.103	0.0197	0.0880
	(0.0898)	(0.0906)	(0.0905)	(0.0884)		(0.0984)
America	-0.0858	-0.0652	-0.0798	-0.0937	-0.0180	-0.132
	(0.247)	(0.248)	(0.252)	(0.257)		(0.268)
Rest of the World	0.909**	0.958**	0.950**	0.902**	0.1729	0.849*
	(0.385)	(0.392)	(0.389)	(0.390)		(0.450)
Pre_crisis	0.267	0.298	0.275	0.362*	0.0695	0.219
	(0.193)	(0.194)	(0.195)	(0.199)		(0.309)
Post_crisis	-0.224	-0.256	-0.278	-0.369*	-0.0707	-0.604**
	(0.184)	(0.185)	(0.185)	(0.190)		(0.304)
Constant	-0.955***	-0.964***	-0.845***	-1.028***		-0.0725
	(0.255)	(0.256)	(0.259)	(0.268)		(0.671)
Observations	951	951	951	951		951
Hosmer-Lemeshow χ^2***	2.06	6.89	5.23	6.50		4.68
AIC	1130.924	1129.773	1123.189	1114.054		1129.315
Overall % correct	70.77%	70.45%	70.98%	70.87%		70.45%
Log pseudolikelihood	-550.462	-548.606	-544.595	-539.027		-546.657
LR	96.864	100.577	108.599	119.734		104.473
Prob > LR:	0.000	0.000	0.000	0.000		0.000
Nagelkerke R^2	0.135	0.140	0.151	0.165		0.145

[a] Robust standard errors in parentheses.

[b] *** p<0.01, ** p<0.05, * p<0.1

[c] Marginal effects of Model 4.

[d] Estimated probabilities over 100 in order to maintain the same scale.

Table 6 First stages[a,b]

Variables	Model (1) MNC_Family	Model (2) Host_Family
TangAssets	-2.34e-08*	-2.14e-08
	(1.34e-08)	(1.47e-08)
Amenity	0.259	0.450**
	(0.210)	(0.192)
Regulation	-0.351***	-0.383***
	(0.111)	(0.143)
MNC_RDintensity	0.0928	0.0758
	(0.0728)	(0.0716)
Experience	0.0742	-0.221**
	(0.111)	(0.107)
MNC_Size	0.00411	0.0121
	(0.0168)	(0.0158)
Host_Size	-0.00523	0.0350
	(0.0242)	(0.0235)
Host_Listed	0.161	0.145
	(0.235)	(0.248)
Relative_Size	0.0147	-0.0146
	(0.0139)	(0.0143)
Host_IndustryGrowth	0.545	-0.703
	(0.687)	(0.690)
Host_Manufacturing	-0.0289	0.00549
	(0.101)	(0.105)
Same_Industry	-0.105	0.103
	(0.0999)	(0.0956)
Psychic_Distance	0.0685	0.0182
	(0.0581)	(0.0529)
America	-0.226	-0.0107
	(0.162)	(0.146)
Rest of the World	-0.410	0.142
	(0.264)	(0.236)
Pre_crisis	-0.307**	-0.533***
	(0.134)	(0.133)
Post_crisis	0.0903	0.488***
	(0.111)	(0.104)
Constant	-0.714***	-0.718***
	(0.165)	(0.157)
Observations	951	951
Nagelkerke R^2	0.186	0.055

[a] Robust standard errors in parentheses.
[b] *** p<0.01, ** p<0.05, * p<0.1