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Franco Rubino
Francesco Napoli

ITALIAN SMEs WITHIN FIRM NETWORKS: WHAT ARE THE EFFECTS ON INNOVATION OF DIFFERENT COMPOSITIONS OF THE CORPORATE GOVERNANCE STRUCTURES?

Università della Calabria
Collana di Economia Aziendale
Serie Scientifica

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ITALIAN SMEs WITHIN FIRM NETWORKS: WHAT ARE THE EFFECTS ON INNOVATION OF DIFFERENT COMPOSITIONS OF THE CORPORATE GOVERNANCE STRUCTURES?

by *Franco Rubino* and *Francesco Napoli*

Abstract

This paper analyses how the board composition of a small-or medium-sized firm (SME) within an inter-firm network can improve that firm's capacity to create net value for itself and the network to which it belongs. With this aim, we established a panel of 415 sampled companies belonging to inter-firm networks. We interviewed the CEOs of these companies and gathered, on one hand, data regarding the creation of net value and, on the other hand, data inherent to the companies' governance structures and mechanisms. We found that the effective performance of control and service tasks by outside directors has positive effects on the capacity of the individual company in a network to create net value. In addition, the individual firm's capacity to create net value increases when an outsider is in an interlocking directorship with another firm within the same network.

Keywords: board of directors, Inter-firm networks, corporate governance

1. Introduction

The governance structures and mechanisms of firm networks have been analysed in literature by separating this aspect from that of the corporate govenance of individual firms. This paper looks at inter-firm relationships from a different perspective and tries to identify the individual firm's internal governance structures which are able to:

- increase partners' incentives (real or potential) to cooperate,
- best exploit the possibilities offered by cooperation to create net value.

The literature states that the complementarity and attractiveness of resources held by a potential partner are an incentive for a firm to form a collaborative relationship with that partner (RICHARDSON 1972; GULATI 1998; GULATI 2000). During the relationship, the firm and its partner have access to

some of each other's internal resources. The relationship will be a success if this access is aimed at the reciprocal exploitation of complementarities of other firms'resources and so long as the firm and its partner obtain a just return on the investments entailed in the relationship. This return is represented by the new and further net value that is generated by the collaboration. Problems arise between the management of a firm and its partners due to the moral hazard of managers who might profit from the cooporation, appropriate the value derivable from partners' resources and, so, create value for themselves and their firms rather than new, further value to be shared with partners. This is often the case when, for example, managers profit from access to a partner's resources (within the context of the cooperation), adopt opportunistic behaviour, such as imitation of a product, and go so far as to nullify their partner's competitive advantage. The literature on single firm governance often focuses on financiers' expectations. It says that financiers' decisions are based on economic criteria and influenced by their perceptions of the capacity that the governance of the financed firm has to guarantee returns on their investment (SHLEIFER and VISHNY, 1997). We adopt a wider perspective that looks at the importance that the participation in a network has for a firm in terms of financial capital. This is representative of the situation for any other limited resource, for instance an entrepreneurial idea, knowledge or technology, in the hands of a (potential/actual) partner that the firm wants to acquire through the collaborative relationship. The contribution of financial capital is not necessarily a, or the only, source of power which can influence a firm's governance given that the contribution of any limited resource necessary to a specific organisation can also be relevant (S. GROSSMAN, O. HART, 1986; O. HART, J. MOORE, 1986). In this perspective, stakeholders who possess resources that are critical for a firm's activity should participate in, or, at least, should have some influence on, that firm's strategic decision making, otherwise their incentive to provide critical resources that the firm needs will be weak. This should all have importance for the group of shareholders made up of the (potential/actual) partners of a firm in an inter-firm network. In particular, we consider that the firm which wants to establish/strengthen numerous cooperative relationships should adapt its own governance in such a way as to encourage its numerous partners to provide it with the critical resources it needs. We suggest that partners only establish/strengthen relationships with the firm if they have a positive perception of the capacity that the governance of the firm has to guarantee the returns which are expected of these relationships. Indeed, a rational economic agent is unlikely to provide his own resources optimally to increase the firm's economic value

if he believes that his contractual position is not suffciently protected by the firm's governance (BAKER et al., 2002).

This premise guides our subsequent empirical analysis, in which we refer to firms that established cooperative relationships with one another, analyse the data regarding the creation of net value and the make up of the firms' boards of directors. In this way, we try to understand whether the firm that adapts the composition of its board of directors as a consequence of its partners' needs for greater protection and to facilitate access to critical resources controlled by its partners creates higher net value.

Italy is the ideal setting for addressing the issues looked at in this paper because of the presence of a large number of firms that sign contracts of collaboration. We set out this paper in the following terms. In section 2, we illustrate the firm network phenomenon which has taken on such importance in Italy that, in 2009, the State issued a law (Legislative Decree n. 5 of 10th February 2009) specifically to regulate the concluding of cooperative contracts for the formation of firm networks and to make public information on the network contracts that firms enter into. In fact, any contract setting up a network of firms has to be registered publically. This means that the information necessary to identify firms that are active within complex firm networks can be gathered. From a theoretical point of view, the framework will make use of the teachings of the *Resource-Based View*, henceforth RBV, to understand what type of strategic needs and expectations might emerge from the individual firms that belong to a network. We will then use theories of corporate governance to understand which of the individual firms' internal governance structures are able to respond to these strategic needs and expectations effectively. We elaborate a theoretical framework and various hypotheses regarding this. In section 3, we present the empirical research, together with description of the data, variables and methodology, all referring to a panel of 415 firms. The results will be highlighted and discussed in section 4. Final conclusions will be drawn in section 5.

2. Theoretical background and hypotheses

2.1 Board Control Tasks: The Agency Theory

Agency Theory has classified board members into two broad groups: insiders and outsiders (Hermalin & Weisbach, 2003). Insiders are directors who are firm employees, retired employees, or family members of the firm's personnel. The remaining directors are the outsiders and they can be divided between (Daily *et al.*, 1998):

- those with existing or potential business ties to the firm, known as affiliates;
- those members whose only tie to the firm is their directorship, known as independents.

From an agency prospective, the board is an internal control mechanism which, depending upon the extent to which it is composed of independent directors, can mitigate for moral hazard problems. Independent directors monitor and control insiders and/or owner–managers of family firms to overcome agency problems that arise between owners and managers, owners and lenders, and majority and minority owners (EISENHARDT, 1989; FAMA & JENSEN 1983). Schulze *et al.* (2001) have added intra-family agency problems to this list. Agency theory scholars emphasise (nuclear) family interests and consider both economic and non-economic motives for the behaviour of family owner-managers. In particular, four main sources of moral hazard can be identified:

1) *The owning family's pursuit of its own economic interests*. Owning families have great potential for expropriating economic wealth from the firm through special dividends, excessive compensation, tunnelling activities and the like (ANDERSON & REEB, 2004; BEN-AMAR & ANDRÉ, 2006; FACCIO *et al.*, 2001; SILVA & MAJLUF 2008). Scholars emphasise the need for supervision by an independent board with the formal authority to scrutinise and challenge the family's decisions and behaviour in order to limit the family's discretion over firm resources and protect the interests of non-family minority shareholders and lenders (ANDERSON & REEB, 2004; CHEN & HSU, 2009; JAGGI *et al.*, 2009; SETIA-ATMAJA *et al.*, 2009).

2. *The owning family's pursuit of its own non-economic interests*. Family businesses are less likely than their non-family counterparts to pursue economic performance as their sole or even primary objective (CHRISMAN *et al.*, 2003; GOMEZ-MEJIA *et al.*, 2007; SHARMA *et al.*, 1997). Examples of non-economic or so-called socioemotional objectives include preservation of the family character of the firm, family employment and maintenance of family traditions and harmony (GOMEZ-MEJIA *et al.*, 2007; JONES *et al.*, 2008; VOORDECKERS *et al.*, 2007). Although the pursuit of such objectives does not necessarily create economic inefficiencies (CHRISMAN *et al.*, 2003; SIRMON & HITT, 2003), when it does, it represents an agency cost for non-family stakeholders (e.g. investors or banks) who are only interested in the economic performance of the family business (CHRISMAN *et al.*, 2004; STEIJVERS *et al.*, 2010; VOORDECKERS & STEIJVERS, 2006). Non-family stakeholders may therefore demand the appointment of independent board members to protect their financial interests (CHRISMAN *et al.*, 2004; FIEGENER *et al.*, 2000).

3. *The parental tendency to act upon altruistic motives*. Examples of decisions based on parental altruism include the setting up of a separate department/plant for each child, rewarding employed children equally, regardless of effort and performance, and lavishing them with excessive perquisites and privileges (LUBATKIN *et al.*, 2005; SCHULZE *et al.*, 2001). Such decisions, although well intentioned, may engender inefficiencies, strategic inertia, feelings of distributive injustice and, most commonly, incite employed children to misbehave by engaging in shirking and free-riding (SCHULZE *et al.*, 2001; 2002). Parental altruism has thus been recognised as an important potential source of agency problems within family businesses (CHRISMAN *et al.*, 2004). It is argued that boards play a valuable role in restricting the discretion of parent owner-managers so as to prevent their self-control problems from undermining the viability of the family business (CHRISMAN *et al.*, 2004; JAFFE, 2005; SCHULZE *et al.*, 2001). Board members with 'independence of mind' should question and challenge the owner-managers' decisions and set limits to their altruistic tendencies to safeguard the interests of not only lenders and investors, but also of the owning family itself (CHRISMAN *et al.*, 2004, p. 348).

4. *The different nuclear family units' pursuit of their own interests*. The nature of moral hazard tends to alter as the family business's ownership structure changes over generations (BAMMENS *et al.*, 2008; LUBATKIN *et al.* 2005). In sibling partnerships where ownership has been transferred to several siblings, altruism tends to give each sibling an incentive to maximise the welfare of their own nuclear family unit rather than that of the extended owning-family, with each family unit typically having its own idiosyncratic set of economic and non-economic preferences (SCHULZE *et al.*, 2003). This disregard for the overall well-being of the extended owning family becomes even more pronounced in cousin consortia, where ownership has been passed on to members of the third and later generations, with these relatives generally having weak mutual ties and diluted emotional attachments (BAMMENS *et al.*, 2008; LUBATKIN *et al.*, 2005). Therefore, over the generations, intrafamily convergence of interests weakens, and agency problems increasingly resemble those found in a non-family business context (CARNEY, 2005; JASKIEWICZ & KLEIN, 2007).

Given that economic and non-economic reasons exist for moral-risk behaviour by owner-managers in family firms, non-family stakeholders (e.g. investors, banks) may therefore demand the appointment of independent board members to protect their financial interests (CHRISMAN *et al.*, 2004; FIEGENER *et al.*, 2000). Financiers have a greater incentive to invest in a firm if that firm's board increases its number of independent members since these

independents give investors greater guarantees. Therefore, independent outsiders are primarily invited onto the boards of family business as a response to pressures from non-family stakeholders, such as investors and banks, who are attempting to safeguard their financial interests, and as a way to attract their capital to the firm.

Agency theorists explain the importance that equity and external funds from lenders (debt) have for owner-managers of family firms to finance investment. In particular, the CEO under family governance sees finance funds differently from a CEO under managerial governance. In managerial governance, retained earnings (owners' equity generated by corporate saving) and capital paid-in by shareholders are substantially different, while in family governance the two forms are on the same level (at least for family owner-managers). In the latter case, Jensen and Meckling (1976) refer to '*inside equity*' without making any further distinction between the two forms. Each form would have the same effect for the owner–managers of family firms: increasing investments of family resources in the firm and decreasing family portfolio diversification. On the other hand, the raising of paid-in capital from shareholders who are external to the owning-family ('*outside equity*' as defined by Jensen e Meckling) is different for owner-managers. The costs of such a form of finance for owner-managers of family firms are notably higher than those of other external sources for two reasons: a) the unwillingness of the owner-manager to dilute shares, because this would bring about a reduction in the advantages of control (DYCK & ZINGALES, 2004); b) the high agency costs relating to the entry of partners who are not connected with management (JENSEN & MECKLING, 1976). Capital constraint, which derives from a refusal to rely on equity, can lead owner-managers of family firms to decide to carry out large scale investments by using high leverage.

It is useful to remember that, according to agency theory, board independence is the primary antecedent of the monitoring function. Monitoring by boards of directors can reduce agency cost of debt (JENSEN & MECKLING, 1976; BARNEA *et al.*, 1981; ANDERSON *et al.*, 2003), i.e. the cost which is borne due to information asymmetry and conflicts of interest between owners and lenders.

2.2 The board's strategic tasks and resource dependence theory

At first, corporate governance theory tended to look to agency theory and boards' need to curb excessive executive power for guidance in directors' decision making (NORDBERG, 2008). Successively, studies of the board's strategic tasks have increasingly been the focus of research attention

(Pugliese *et al.*, 2009). In particular, this regards boards' participation in various phases of strategic decision making through interacting with the firm's TMT (Top Management Team) (Judge & Dobbins, 1995; Forbes & Milliken, 1999; Rindova, 1999; Taylor et al., 2008; Long, 2007).

The board's strategic tasks reflect 'the development, maintenance and monitoring of the firms' core competencies with the purpose of achieving long-term results and survival. Strategic decision-making involves resolving uncertainty, complexity and conflicts (Huse, 2007, p. 239). In other words, the board's performance of its strategic tasks is a source of competitivity, which can protect the firm's long-term health against managerial short term plans.

The resource dependence theory explains the organisation's strategy which functions through the board to ascertain the availability of strategic resources. Boards of directors perform a service task and are supposed to bring different types of resources to the firm.

Among the different potential benefits provided by corporate boards, advice and counsel on the one hand and external legitimacy and networking on the other are considered to be particularly valuable (Hillman & Dalziel, 2003). The role that directors play is that of providing or securing essential resources through connections with the external environment (Boyd, 1990; Daily & Dalton, 1994a, 1994b; Gales & Kesner, 1994; Johnson et al., 1996; Pearce & Zahra, 1992; Pfeffer, 1972; Pfeffer & Salancik, 1978; Zahra & Pearce, 1989). Resource dependence theory states that corporate boards are a mechanism for managing external dependencies (Pfeffer & Salancik, 1978), reducing environmental uncertainty (Pfeffer, 1972) and reducing the transaction costs associated with environmental interdependency (Williamson, 1984). According to Pfeffer and Salancik (1978), boards are 'vehicles for co-opting important external organisations' (p. 167).

So, when facing difficulties due to a lack of key resources, the organisation can mobilise its board to ensure the provision of these resources and, even, appoint new board members from key outside organisations upon which the firm depends (Pfeffer & Salancik, 1978).

The primary antecedent of the board's provision of resources which is examined in the literature on resource dependency is board capital (Hillman & Dalziel, 2003).

This capital consists of both human and relational capital. Becker (1964) and Coleman (1988) define the directors' expertise, experience, knowledge, reputation, and skills as 'human capital'. Resource dependence scholars define the board's directorate ties to external organisations as 'relational

capital' (HILLMAN & DALZIEL, 2003). Relational capital, sometimes called social capital, explicitly refers to 'the ability of actors to secure benefits by virtue of membership of social networks' (PORTES, 1998, p. 6). Kim and Cannella (2008) proposed a 'social capital theory of director selection' stipulating that social capital has a direct impact on the appointment of a director and on the efficiency of the board. There are also some studies which expect social capital to determine the appointment of directors (MAMAN, 2000; LESTER, 2003).

Pfeffer and Salancik (1978) assert that the firm receives 4 principle benefits from connecting its board to the external environment: *1) provision of specific resources*, such as expertise and advice from individuals with experience in a variety of strategic areas; *2) channels for communicating information between external organisations and the firm*; *3) legitimacy* and *4) aid in obtaining commitments or support from important elements outside the firm*. We see these four primary benefits as relating to specific areas of resource needs that may be met by including outsiders on a board.

With regard the first type of benefit, Carpenter and Westphal (2001) found that boards which include directors with ties to strategically related organisations are able to provide better advice and counsel which is positively related to firm performance.

With regard the second type of benefit, board linkages are thought to be especially important conduits because they are likely to provide information which is directly relevant to strategy and which affects behaviour (PALMER, 1983; LESTER & CANNELLA, 2006). Board capital provides the firm with timely and valuable information and serves to reduce the transaction costs of dealing with uncertainties in the environment, thereby enhancing performance (HILLMAN *et al.*, 1999).

With regard the third type of benefit, Certo *et al.* (2001) found that firms with more prestigious boards experienced better performance (less underpricing) at their initial public offering. This suggests that the prestige of directors (board capital) can enhance the credibility and performance of the firm they serve. Pfeffer and Salancik note that 'prestigious or legitimate persons or organizations represented on the focal organization's board provide confirmation to the rest of the world of the value and worth of the organization' (1978, p. 145). Bazerman and Schoorman state, 'An organization's reputation can be affected by who serves on the board of directors and to whom the organization is seen to be linked' (1983, p. 211).

With regard the fourth type of benefit, Pfeffer & Salancik (1978, p. 163) have long affirmed that 'when an organization appoints an individual to a board, it expects that the individual will come to support the organization,

will concern himself with its problems, will present it to others, and will try to aid it'. In line with such statements, some authors have developed the idea that board members would take advantage of their networks to allow the firm to acquire new resources (KIM & CANNELLA, 2008; LESTER & CANNELLA, 2006; NICHOLSON *et al.*, 2004).

In the literature on resource dependence, other works which in the past referred to enterprises other than family firms, affirm, for example, that director candidates who have close external ties can more effectively provide organisations with essential financial capital than others who do not have such contacts (D'AVENI, 1990) or rather they affirm that companies frequently invite representatives of banks with which they are heavily in debt onto their boards of directors (MIZRUCHI, 1996; PFEFFER & SALANCIK, 1978).

2.3 Firm networks

The establishing of a firm network agreement in Italy is regulated by law (article 3, paragraphs 4b and 4c of Legislative Decree n. 5 of 10th February 2009, passed with modifations as Legge 33 of 9th April 2009).

As far as we know, Italy is, at present, the only country in the world that offers firms which wish to keep their groups of owners separate the possibility to establish a multiplicity of inter-firm relationships through the signing of just one single contract (the network contract), which is subject to national law. The network contract is defined in art. 4b of the law as a contract that generates a phenomenon of firm aggregation with the aim of *"increasing reciprocal capacity and market competitivity"*. The innovative capacity of network of firms is the focus of the law and our work, since we assess the firm's ability to create net value by measuring its product and process innovation. The suitability of measuring the ability to create net value by considering product and process innovation has already been indicated in respected literture, see, for example, Hitt et al. (1997) and Molina-Morales and Martınez-Fernández (2004).

The Registro delle Imprese (Company Register) has dedicated a specific section of its web site to the network contract (http://contrattidirete.registroimprese.it) in order to promote its use. From a theoretical point of view, inter-firm networks are organisational forms (external organisations) for the coordination of firms' different productive activities (internal organisations). The literature does not always agree on the principal characteristics of networks as opposed to firms considered individually. Grandori and Soda (1995) and Grandori (1997) present a summary of the different arguments.

For historical reasons, Italy has poor financial infrastructures (PAGANO,

Panetta and Zingales, 1998). In particular, a high level of ownership concentration is a characteristic of all firms, even those quoted on the stock market (Milan stock Exchange). The largest class of blockholders is that of families who are active in the family firm, the second class is the state or other public bodies (Cascino et al., 2010; Corbetta and Minichilli, 2005; Montemerlo, 2000). We focus our attention on family firms. Family firms face an inherent capital constraint with respect to raising outside equity because continued family control of the firm requires the rights and prerogatives of ownership to stay in the hands of family members and trusted associates (Dyck and Zingales, 2004; Carney *et al.*, 2015). Furthermore, even when family members are willing to dilute their ownership somewhat, tensions in the relationship between family owners and arm's length investors are a constraint upon the firm's ability to raise external capital (Peng et al., 2008). Chandler (1977; 1990) stated that family firms experience slower growth. In Italy, family firms' capital constraint has been an impediment for the firms' processes of internal growth due to the refusal on the part of family owner-managers to rely on equity to carry out large scale investment (in property, plant, equipment and other assets of the firms) within the firms (Bruno, 1999). The capital constraint of Italian family firms has, on the other hand, encouraged processes of external growth through the realisation of strategic alliances with other firms (Bruno, 1999). Through strategic alliances and collaborative relationships, Italian family firms have been able to develop business ideas that would, otherwise, have been impossible, sometimes becoming leaders in their particular international markets (Bruno, 1999; Porter, 1990). Empirical data on network contracts established in Italy provide a good example to help understand the results of the external growth processes that, until today, Italian family firms have preferred to adopt. In particular, there were 2,542 network contacts, involving 12,770 firms with headquarters in Italy and employing 140,000 dependent workers, on the Company registry on 11th February 2015 (http://contrattidirete.registroimprese.it/reti/). On average, each business employed 11 dependent workers and 95% of the cases were small- or medium-sized firms (SMEs), given that there were fewer then 50 employees.

2.4 Formulating hypotheses

Certain particular governance issues have to be resolved by family firm governance, especially when they are small- or medium-sized. The first issue is that of strategic inertia, which constitutes an obstacle for innovation. Literature shows that strategic change and innovation typically involve

taking risks. The concentrated nature of ownership puts closely held firms at a disadvantage in terms of risk bearing and promotes strategic inertia (CHANDLER, 1990; MEYER and ZUCKER, 1989; SCHULZE *et al*, 2002; CARNEY *et al.*, 2015). This means that a high concentration of ownership may lead to strategic risk avoiding choices (CHANDLER, 1990). Moreover, in the family firm, the blending of family and business matters in strategic decision-making may promote inertia, for instance when a CEO postpones necessary business decisions, such as a generational succession, because of concerns about family welfare (SCHULZE et al., 2002). These authors argue that family ownership impedes strategic change activities, such as innovation, venturing and strategic renewal activities, as a result of the risk aversion of the concentrated ownership, altruistic incentives and problems with self-control. There is also a current in the family firm literature that depicts these firms as conservative and resistant to change (ARONOFF and WARD, 1997; KETS DE VRIES, 1993; SHARMA *et al*, 1997), introvert (POUTZIOURIS *et al*, 2004), and paralyzed by internal family conflict (BARACH, 1984).

Research into family firms' governance investigates how demographic variables regarding the participation on the board of non-family members (known simply as outside members of the board or outsiders), influence the ability of family firms to create value (BRUNNINGE *et al.*, 2007). Outsiders are members of the board who neither work for the company on a daily basis nor belong to the main owner family. Since demographic characteristics alone cannot accurately capture the processes within teams and between individuals (PETTIGREW, 1992), we take an extra step and look at the tasks that non-family board members perform on the board and how they are performed (ZHANG, 2010). From a strategic perspective regarding the survival of a firm network and its aims, *monitoring* and *supporting* are tasks that the board, and particularly board members who are not a part of the owner-manager family, might perform to important effect.

Familiness is the idiosyncratic bundle of resources and capabilities that a firm accumulates due to the systemic interactions of the family (HABBERSHON, WILLIAMS, & MACMILLAN, 2003) which lead to the advancement of the firm or the demise of the firm. Owner-managers make an important contribution to their firms since, at the heart of family firms' capacity to perform and innovate, there are often routines that have developed within the organisation and which derive from culture, practices and values that "live" in the family. Therefore, the maintaining of family control and the direct involvement in positions of highert management of some of its members are indispensible conditions in guaranteeing the communication of this wealth of knowledge (BARCA, 1994).

However, a board of directors may make an important contribution to the firm's strategy (PUGLIESE et al. 2009; CARNEY *et al.*, 2015) with regards, generally, the processes through which the firm makes its most important strategic decisions (PUGLIESE *et al* 2009). Indeed, boards participate in various phases of strategic decision making through interacting with top management teams (JUDGE and DOBBINS, 1995; FORBES and MILLIKEN, 1999; RINDOVA, 1999). Previous to this, the international literature had shown the important influence of board insiders and outsiders in the choice of the firm's innovation strategies. Hill and Snell (1988) and Baysinger *et al* (1991) were among the first studies to show board influence on the firm's innovation activity. Authoritative literature asserts that boards should have outside members with the power to speak the truth to an entrenched family boss (ANDERSON and REEB, 2004). The literature underlines the fact that there are many examples of family firms which have active boards with outside members who have a role in strategy development (FIEGENER, 2005; BRUNNINGE *et al.*, 2007). Outside members are more likely to view the tasks of the board as being different from and complementary to that of management, while insiders may view board work as an extension of their managerial responsibilities (FORBES and MILLIKEN, 1999; MACE, 1986). Outside board members are not tied to the day-to-day operations of the firm and consequently they are likely to think more freely with regards the strategic alternatives open to the firm (FORBES and MILLIKEN, 1999). Therefore, outside board members in family firms can point out new strategic directions and also provide information and advice during a change process (BORCH and HUSE, 1993).

The experience of outside board members gained from contexts other than the firm also help to generate new perspectives and ideas and can increase cognitive diversity. Cognitive diversity means the existence of multiple and different data collection, analysis and interpretation styles among the members of a group. Boards with active outside directors who have different information acquisition and interpretation styles are likely to consider a wide array of data sources regarding their companies' markets, competitors, operations, and customers (KECK, 1997; LEONARD and SENSIPER, 1998). This could improve family firm capacity to identify more needs and opportunities for strategic change and innovation.

Putting together the different contributions of the literature looked at, we believe it reasonable that the inclusion of non-family members on the board might: increase the capability to interpret environmental change; extend the competences within the firm that are necessary for the development of new resources or, more simply, improve the understanding of how present

resources may be combined differently so as to generate strategic change and/or innovation. In reference to a family firm belonging to a firm network which takes an outside member on to the board, we therefore formulate the following hypothesis:

H1. The presence of an outsider on the board of family firm which belongs to a firm network positively influences the firm's capacity to create net value.

Board research has mostly emphasised the static dimension relating to the knowledge and skills possessed by directors, as implied by the concept of board capital (HILLMAN & DALZIEL, 2003). Only limited attention has been given to a dynamic dimension of using resources on the board (FORBES & MILLIKEN, 1999). This study attempts to explore both dimensions (static and dynamic), and, then, also formulates hypotheses regarding the impact that the board's performance of its tasks has on the creation of net value.

Monitoring and supporting tasks

Dynamic perspectives include what directors do in addition to what they know. Infact, possessing and using the knowledge and skills of board members can result in different impacts on performance. For example, practices of using diverse knowledge and skills, such as open discussion and active search, seem to have a stronger influence on the board's current strategic tasks performance than the possessing of diverse knowledge and skills (ZHANG, 2010). With regard the focus of this paper, we look at practices of using the diverse knowledge and skills possessed by board members in carrying out board tasks, which may prove important in the efficient functioning of the firm network to which the firms that have recruited outside board members belong.

A strategic perspective might be used to explain the importance of the board's monitoring and supporting functions for firms that want to develop and/or strengthen their network relationships. Above all, the RBV perspective clearly shows why a firm might open itself up externally and refers to *resources* as being fundamental. Resources which can not be found internally and autonomously by the firm, and their being sought outside the company lead, bring about the creation of horizontal and vertical inter-firm agreements. In particular, internal and idiosyncratic resources are the generating cause of a strategic partnership and of any other form of inter-company relationship (HAMEL, 1991; HILL, HELLRIEGEL, 1994; SHAN et al., 1994; CHEN, CHEN, 2003). From a RBV view point, the characteristics of

resources and of the firm's capacities (such as imperfect mobility, inimitability and substitutability) permit an accentuated creation of value which facilitates the formation of inter-company relationships aimed at gaining competitive advantage, so rendering the firm which holds these resources highly attractive in the eyes of potential partners. In this sense, the complementarity and desirability of the resources and competences held by a potential partner are an incentive to a firm to establish inter-firm relationships (Richardson 1972; Gulati 1998; Gulati 2000).

The RBV underlines the importance of the role of resource complementarity between partner firms in generating a competitive advantage so as to be able to exploit the market (Gulati 1998; Chen e Chen, 2003). Essentially, firms turn to partnerships and agreements with other external economic operators in order to gain access to *resources* they do not possess themselves. Therefore, the reasoning behind the forming of these relationships is to be found in the potential creation of value that is obtainable from the combination of resources of a different origin. From the resource-based point of view, the resource characteristics determine the structure of the relationships, alliances and mechanisms of governance, since the firms are not only interested in gaining access to and acquiring valuable resources that they themselves do not possess, but also in protecting their own valuable resources during the processes of forming inter-firm relartionships. The exchange of resources is not without conflict. The theoretical RBV system presents risks connected with the inter-firm relationships and, in order to avoid them, refers to the existence of isolating mechanisms (Rumelt 1984), such as property rights, casual ambiguity and development costs, which intervene to protect the firm's resources and competences from imitation on the part of partners and other firms. There is a considerable body of work that suggests that imitation flows through inter-organisational ties (Ahuja, 2000; Davis & Greve, 1997; Galaskiewicz & Burt, 1991; Greve, 1996; Palmer, Jennings, & Zhou, 1993; Rao, Davis, & Ward, 2000; Westphal & Zajac, 1997; Van Doorn *et al.*, 2017). At this point, our research attempts to verify whether the board is used by family firm owner-managers as an instrument to improve relationships with partners. In particular, we verify whether the presence in firms (which belong to networks) of an outside board member, which indicates the efficient performing of tasks:

- known as *supporting*, which provide or secure essential resources through connections with the external environment.
- known as *monitoring*, which assure partners that their contractual position are suffciently protected by the firm's governance against the

risk that the firm's management will adopt behaviour which is detrimental to their interests (the partners are assured that their resources will be protected during processes of the formation of inter-company relationships).

brings about an increase in the ability to introduce innovation and create higher net value, both in reference to the firm itself and in reference to the network the firm belongs to. Indeed, we maintain that improved inter-firm relationships increase possibilities of access and reciprocal exchange between network firms and might reasonably be associated with the capacity to create innovation and new value, in line with the review made of the literature on RBV and the innovation process. The reasoning is that family firm owner-managers are likely to choose as board members those outsiders who are able to help the firm to resolve their strategic problems. In this sense, for example, in their work relating to listed American firms, both public companies and others controlled by institutional shareholders, Hill and Snell suggest that board members are selected by top management in response to specific strategic requirements of the firms (1988, p. 588). Innovation activity is an important area in which the board can make a contribution (Baysinger *et al*, 1991; Van Doorn *et al.*, 2017). With reference to family firms, the appointment of outside board members may be the way to deal with issues relating to their often unique situations, such as the above mentioned strategic inertia that impedes activities such as innovation.

Monitoring tasks

The problem to be looked at here is not unlike that proposed by the Theory of the Firm. This theory assumes people will operate in their own self-interest; in the case of firms, the executive director (insider), needs to be monitored by the outsiders, or external board members, to avoid a moral hazard situation from arising (Miller-Millesen 2003). Agency theorists focus on the power dynamics between the chief executive officer and the board of directors, revealing the importance of the board's having adequate power to protect stakeholders (Cornforth and Edwards 1999). The Theory of the Firm states that the presence of outside board members who efficiently perform their monitoring tasks improves monitoring of the CEO and protects stakeholders more. Now, we maintain that the partners who make up the network to which firm belongs are important stakeholders in the firm. If a firm's governance guarantees its partners the returns they expect from their inter-firm relationships, then these partners will reinforce their inter-firm

relationships and this will have a positive effect upon the creation of net value, both by the individual firm considered and by the network in its complexity. A firm's effective governance, which protects partners from the risk that the executive director (insider) might adopt behaviour which is detrimental to their interests, creates a climate of trust between partners and this increases the possibility of reciprocal exploitation of the complementarity of the resources controlled by the firms in the network and, therefore, also the possibility of generating new innovation through the combination of these resources of diverse origins. This leads the firm and the network to which it belongs to create a higher net value. With reference to a family firm belonging to a firm network which takes an outside member onto its board, we make the following hypotheses:

H2: an outside board member who performs monitoring tasks effectively has a positive effect on the capacity for net value creation in the firm belonging to a network.

Supporting tasks

Under a second set of analyses, we focus on outside board members who may provide a greater possibility of access to the resources that network partners control, as well as those controlled by firms outside the network. By drawing upon their personal contacts outside, board members can also link the company with important stakeholders within its environment (BORCH and HUSE, 1993; ZAHRA and PEARCE, 1989), operating as agents for resource acquisition (GOODSTEIN and BOEKER, 1991) and enhancing the organisation's reputation and legitimacy (HUNG, 1998; JOHANNISSON and HUSE, 2000; PFEFFER and SALANCIK, 1978), thus facilitating favourable external conditions for change, innovation and, hence, the creation of net value. The quoted literature indicates the probability that including individuals on the board who are not a part of the dominant family might have positive effects on value creation. Outsiders on the board may prove useful since, using resource dependency theory, it has been argued that boards have an important role in securing resources (PFEFFER and SALANCIK 1978). In particular, corporate boards are a mechanism for managing external dependencies (PFEFFER and SALANCIK, 1978), reducing environmental uncertainty (PFEFFER, 1972) and reducing the transaction costs associated with environmental interdependency (WILLIAMSON, 1984). So, when facing difficulties due to a lack of key resources, the organisation can mobilise its board to ensure the provision of these resources and even appoint new board members. These resources are both relational capital and human capital

(Hillman, Dalziel, 2003). In the case of firms, the board's supporting role encompasses the ability to attract resources and to establish and maintain credibility in the community. From this perspective, boards may typically be composed of influential members of the community who serve as ambassadors for the organisation. These ambassadors channel communication to the organisation, secure resources, and enhance credibility (Miller-Millesen 2003). Research on corporate boards has linked enhanced resources and credibility to firm performance (Carpenter and Westphal 2001; Hillman, Zardkoohi, and Bierman 1999; Lester and Cannella 2006). One indication which has its origins in the theory of resource dependence is that the effective performing of supporting tasks by board outsiders can secure resources that are lacking within the firm, but which are present within or outside the network. The consequence is, however, that the possibilities for exploiting the complementaries of other firms' resources increase between the partner firms and, so, for the creation of new value obtainable from a combination of these resources to the advantage both of the individual firm and the network to which it belongs. With reference to a family firm belonging to a firm network which takes an outside member onto the board, we formulate the following hypotheses:

H3: an outside board member who effectively performs supporting tasks has a positive effect on the capacity for net value creation in the firm in a network.

Interlocking directorates between firms belonging to the same network

In this section, we focus on situations in which an outside member of the board of directors of a network firm serves as a member of the board of directors of another firm belonging to the same network. We know these particular directorships simply as shared directorships. Their presense gives rise to particular interlocking directorates, since they reinforce strategic connections, which already exist in the firms, due to the fact that firms have already entered into network agreements with each other. Interlocking directorates are classified in the literature as, already in themselves, inter-firm networks, as well as joint-ventures, franchising, consortia, commercial agreements, sub-contracting and personal networks (Grandori, 1996). They can, therefore, be understood as a modality through which firms, which are already tied by relationships of coordination based upon network contracts, reinforce the existing coordination mechanisms and relationships by including shared directorships on their boards. During the collection of empirical data, 39%

of interviewed outsider directors were shared between at least two boards of firms belonging to the same network contract.

Interlocks in the board are seen as indicators of Network Embeddedness. Granovetter (1985) argued that economic behaviour, as with human behaviour in general, is socially embedded; that is, economic actors are affected by their relations with other actors. This suggested that a range of firm behaviours -strategies, structures, and performance- could be affected by the firm's relations with other firms. Much of the research that attempts to identify the behavioural consequences of interlocks has treated interlocks as a communication mechanism.

In particular, in the literature there is little consistent evidence that interlocks have any dampening effect on competition (Mizruchi, 1996), indeed there is much research that suggests that interlocking directorates facilitate the flow of information (Mills, 1958; Stanworth & Giddens, 1975). Most scholars seem to believe that interlocks are created to serve organisational interests or the interests of the executives who manage the interlocked corporations. For example, resource dependence theorists believe that interlocks are a means for the firm to reduce the uncertainty in its environment (Burt, 1980; Pfeffer & Salancik, 1978) and reducing the transaction costs associated with environmental interdependency (Williamson, 1984). Board linkages are thought to be especially important conduits, because they are likely to provide information directly relevant to strategy and information that affects behaviour. Such information transmission might lead to imitation (DiMaggio & Powell, 1983) or learning (Levitt & March, 1988). Since firms which share directorship in our analysis already belong to a network built through a network contract, we concentrate on the above-mentioned contributions by the literature according to which firm's' sharing of directorships leads to better knowledge sharing, lower transaction costs due to improved communication and a coherence of action. Therefore, we believe that interlocking directorates between firms belonging to the network help both firms considered singularly and the networks they belong to to develop and improve, individually and collectively, their capacity for innovation

In reference to the participation of non-family members on the board (outside members of the board), we formulate the hypothesis that:

H4. the presence of an interlocking director who is shared with other firms in the same network has a positive impact on the capacity for net value creation of that family firm.

Supporting tasks of interlocks

It is important to consider the contribution of Lester and Cannella (2006) to the discussion on interlocking directorates. They argue that family firms use mechanisms, such as a board of directors, to build, maintain, and draw upon community-level social capital in an effort to resolve their specific problems. Lester and Cannella (2006) assert that, through the appointment of interlocking directors onto their boards, family businesses create links with other family firms and, in this way, they generate social capital, which is an important explanation for the survival and prosperity of the family organisational form. Social capital may be used to bond members of a group, social or otherwise, with a shared identity. Additionally, it may facilitate cooperation among groups, but may also be used to exclude those who are not considered "like us" (HEALY, 2004). Social capital represents the ability of individuals or groups to secure advantages through membership in social networks or other such social structures (PORTES, 1998). For those in family businesses, the community of other family firms likely provides social support and information about how to deal with issues relating to their often unique situations. Understanding that others have successfully dealt with similar situations provides a certain level of social support and trust for the members of the family business community.

Certainly, uniquely family firm issues, such as capital constraint that inhibits internal growth, strategic inertia, intrafamily disputes or leader succession, are important problems that any family business might have to face and overcome in order to survive in the long run. Lester and Cannella (2006) argue that family firms use interlocking directorates to build, maintain, and draw upon community-level social capital in an effort to help the single family firm resolve these and similar problems. Putting together the different concepts explained by Lester and Cannella, we believe it reasonable that the effective performing of support tasks by interlocking directors on the board might help resolve these uniquely family firm issues, especially those relating to strategic inertia, which hinders innovation. The presence of interlockings and, consequently, of community-level social capital is not a panacea for family firms. Interlockings and Community-level social capital can have a very important impact, but their effects on individual members can also be quite weak. For example, interlocks that show a insufficiency in their performing of supporting tasks might result in lower value creation, both on the part of the individual family firms and on the part of the network which these family firms belong to. Therefore, we formulate the following hypothesis:

H5: In reference to the board of a family firm, the effective performing of supporting tasks on the part of an interlocking director, who is shared with other firms within the same firm network, has a positive impact on capacity of net value creation by that family firm.

Monitoring tasks of interlocks

Interlocks had been viewed by some observers as a means by which control of corporations could be traced. The assumption was that a firm that had an extensive representation of banks and other corporations on its board was subject to control by those institutions. In the 1970s, sociologists rekindled their interest in this topic. Among the first sociological analyses to use interlocks to trace control was a work by Mariolis (1975). In examining the Fortune 800 from 1969, Mariolis employed network methods to examine the centrality of various types of firms, based on the assumption that highly central firms would be the most powerful. Mariolis's study raised questions about the extent to which interlocks function as mechanisms of control. However, much research suggests that interlocking directors are appointed for the purpose of coordinating behaviour (Mintz & Schwartz, 1981; Pfeffer & Salancik, 1978) or achieving inter-firm coordination and control (Fitch & Oppenheimer, 1970). After putting together the contributions which assert that interlocking directors have performed their control tasks, we believe it reasonable to formulate the following hypothesis:

H6: In reference to the board of a family firm the effective performing of monitoring tasks by an interlocking director, who is shared with other firms within the same firm network, has a positive impact on that family firm's capacity for net value creation.

3. Methods. Sample selection, variables and measurements

Sample Selection

We employed a method to select the firms, in the form of companies, which might be useful to test the hypotheses formulated. In an initial phase, through:

- the Registro delle Imprese (Company Register), which dedicated a specific section of its web site to firms that had signed a network contract (http://contrattidirete.registroimprese.it),
- the AIDA data base of the Bureau van Dick (https://aida.bvdep.com),

by utilising and cross-checking the data provided by our two sources of information, for 11th February 2015, we identified all of the companies (Società per Azioni and Società a Responsabilità Limitata) that had signed network contracts and were in the ATECO categories of industrial activities. We elaborated a list of 7,391 companies which satisfied the requisites. However, the AIDA databese gave information on the directorship of only 2,432 of these companies, in the section "Esponenti di questa Società" (Exponents of this Company). We exclude, therefore, all of those companies which only had an individual administrator and not a board of directors. At the end of this phase, there were 982 companies left to analyse. AIDA provided a great deal of information regarding these companies, including addresses, e-mail addresses and telephone numbers. In order to collect data, we contacted the firms whose e-mail addresses we had obtained through AIDA in the previous phase. We asked them, first of all, whether they had changed their administrators over the 2011-2012 period and, if the answer was positive, we continued by asking:

- in the firms where there was no outsider board member, for just a telephone number for the company CEO, or for one of his/her direct collaborators/assistants, in order to carry out a telephone interview of no longer than 10 minutes.
- in the firms where there was an outsider board member, in addition to the company CEO's telephone number, a telephone number was also requested for the outsider board member, or for one of his/her direct collaborators/assistants, in order to carry out a telephone interview of no longer than 20 minutes.

We received replies from 415 firms. Before starting the interviews, we classified these firms on the basis of the sector to which they belonged within the Ateco 2007 classification of economic activities. This classification identifies 24 sectors within the category of "Industrial Activities" (see: http://www3.istat.it/strumenti/definizioni/ateco/ateco.html?versione=2007.3&codice=C). However, the firms that had indicated that they were willing to grant an interveiw fell into 16 of the 24 sectors defined by Ateco 2007.

Therefore, these 415 enterprises formed the sample of analysed firms which were tested on the base of the research hypotheses. During the interviews, we gathered, on one hand, data regarding the dependent variables of innovation and, on the other hand, data inherent to the variables on which the former might depend, i.e. independent variables and variables of control. It should be made clear that the data regarding dependent variables refer to the years 2014 and 2013 while, as already mentioned, data regarding

independent variables and variables of control refer to 2011, 2012. The delay of two years was chosen for two principal reasons, both well described in the previous literature (Melin and Hellgren, 1994; Pettigrew and Whipp 1991). A delay between independent and dependent variables acts as a safeguard against risks deriving from the phenomenon of inverse causality. Furthermore, efforts in innovation need time to come to fruition, so a substantial delay between independent and dependent variables should be allowed for.

Dependent variables

All of our hypotheses refer to the concept of the capacity for net value creation in a firm belonging to an inter-firm network. As Hitt et al. (1997) and Molina-Morales and Martınez-Fernández (2004) have pointed out, innovation in the firm is important for that firm's capacity to create value. Therefore, we decided to assess this capacity by measuring the product and process innovation, as Molina-Morales and Martınez-Fernández (2004) also did. To test hypotheses H1, H2, H3, H4, H5, H6, we studied a product and process innovation indicator, named FIRM_INNOV_INDEX which referred to a single sampled firm. We decided to assess the product and process innovation because "with the network contract, two or more firms are obliged to carry out together one or more economic activity that are a part of their respective social aims with the aim of increasing their reciprocal innovative capacity and market competitivity" (art. 3, para. 4b, DL n. 5/2009, passed as L. n. 33/2009). In particular, in order to measure the FIRM_INNOV_INDEX variable, we asked the interviewed CEOs to tell us the number of innovations introduced over the previous two years (2014 and 2013). In line with previous research (Tsai and Ghoshal, 1998), we used the items that are indicated in Table 1 as a product and process innovation indicator.

Table 1 - List of the items used to measure product and process innovation indicator (Tsai and Ghoshal, 1998)

number of developments or introductions of new materials
number of developments or introductions of new intermediate products
number of developments or introductions of new components
number of developments or introductions of new attributes of the products
new developments or introductions of new equipment;
improvements in the level of automation
number of new organisational methods of the productive activities
use of new energy sources

To measure the variable, we added up the number of innovations reported for each item over the period of time under consideration. We ran Cronbach's alpha to validate the aggregation of items. The Cronbach's alpha was 0.73, the value of the alpha was within the limits of tolerance suggested in the literature (Nunnally, 1978; Malhotra, 1997). We, thus, considered the feasibility and coherency of the scales as valid.

Independent variables

As indicated above, the data used to measure the following variables refers to the years 2011 and 2012. To find out about the presence of outside directors on the board, we asked if there were any members of the board who neither worked for the company on a daily basis nor belonged to the main owner family. Close to half of the sample had no outside directors on the board. For those that did, just one outside director was most common. Due to this skewed variable distribution, we dummy coded the variable "0" for those firms that had no outside directors and "1" for those that did. This dummy variable was named "OUTSIDER". When the outsider was also involved in an interlocking directorship, working as a board member for another company in the same inter-firm network as the firm for which he was interviewed belonged, another dummy variable named "INTERLOCKS" was made equal to "1", otherwise this case would also have been attributed the value of "0". A special section of the telephone interview was dedicated to outsiders, which directed these interviewees to think about and rank the firm board in terms of its operation in areas such as monitoring tasks (providing a check that the organisation is meeting acceptable standards) and supporting tasks (providing legitimacy in order to help attract resources and to establish and maintain credibility). In particular, we used two multi-item scales to assess the extent to which an outside board member performed monitoring and supporting tasks. We named the variable that measured how effectivly the monitoring tasks were performed as "OUTSIDER_MONITORING", and that which measured how effectively their supporting tasks were performed as "OUTSIDER_SUPPORTING". Participants were asked to assess their board's behaviour in the years 2011 and 2012 by using a five-point Likert scale for each item, with 1 indicating that an activity never occurred and 5 indicating that an activity always occurred. The items and the Likert scale that we used (with some adaptations that were made necessary by the specific nature of the subject of our analysis) was that suggested by Cumberland *et al.* (2015). In other words, we give a score between 1 and 5 to each disclosed item within the set of items that are considered as peculiar to the monitoring and supporting tasks from an established list (Table 2).

Table 2 - List of the items used to measure indicators relative to the performing of monitoring and supporting tasks

monitoring tasks	***supporting tasks***
Communicate to members and stakeholders	Participate in strategic planning
Report to members and stakeholders how the organisation has used its resources	Provide feedback to the organisation
Inquire into performance deficiencies	Consider the viewpoints of different board members before making final decisions
Evaluate the organisation's strategy and objectives	Influence the agenda for meetings
Monitor top management's strategic decision making	Support board decisions once they are made, even when they are not acceptable
Defer to the judgment of top managers for final decisions	Provide legitimacy to build up the reputation of the organisation
Require information demonstrating progress against organisational objectives	The board develops and maintains two-way communications and positive relationships with key constituencies
Seek out all stakeholders' voices before decisions are made	Legitimise organisational decisions
Assess the organisational leader using a formal process	Attend to the collective welfare of the board members
Personality clashes occur among directors or board members	Board members believe their role is to support the organization, not criticize it
Develop and maintain relationships with stakeholders and other interested parties to promote and meet their interests	Secure external resources for the organization
Analyse financial information for important issues and trends	Board disagreements are resolved constructively
Review the organisation's performance against strategic plans	Propose changes in the organisation's direction

The items are adapted to the needs of our work and taken from those originally used by Cumberland *et al.* (2015)

We ran Cronbach's alpha to validate the aggregation of items. The values of the alpha coefficients were 0.77 for monitoring tasks, and 0.72 for supporting tasks. The Cronbach's alpha were within the limits of tolerance suggested in the literature (Nunnally, 1978; Malhotra, 1997). We, thus, considered the feasibility and coherency of the scales as valid.

Control variables

The ability to introduce innovation may also depend upon other, further variables. Therefore, with reference to the years 2011 and 2012, we included the following variable of control in the analysis:

- FIRM_AGE, the life cycle of a firm might have an impact upon the firm's product and process innovation (Johnson, 1988). Therefore, we controlled for firm age by asking what year the firm was founded in and recoded the response into the firm's number of years of age.
- ORIENTATION, entrepreneurial orientation was included as a control variable because previous research had found that a firm's degree of entrepreneurial orientation can profoundly impact its ability for innovation (Lumpkin and Dess, 1996). We used a six item scale based upon that developed by Covin and Slevin (1986, 1989). In particular, we asked a CEO to assess firm behaviour by using a seven-point Likert scale for each item, with 1 indicating the minimum and 7 indicating the maximum, as shown in the following table. The six items were summed to an index with a Cronbach's Alpha of 0.7.
- FIRM_SIZE, Governance and the ability for strategic change may depend upon the size of the firm. Therefore, we included the total number of employees of the firm as a control variable.

We also included two control variables relating to the governance of the firm. We asked the interviewed CEOs to indicate:

- BOARD_SIZE, measured as the number of directors on the board
- BOARD_MEETINGS, numer of board meetings measured on an annual basis.

Finally, based on the Ateco 2007 classification of "Industrial Activities" of the16 sectors to which the sampled firms belonged, we constructed 16 industry categories and included dummy variables for each of these. These dummy variables were: "food", "drinks", "textiles", "clothing", "leather goods", "wood", "paper", "chemical products", "pharmaceutical preparations", "plastic materials", "metallurgy", **"**metal products", "electronic products", "domestic appliances", "machinary", and "furniture production".

Table 3 - Entrepreneurial Orientation

	Minimum = 1	Maximum = 7
In general, the top managers of my firm favour…	a strong emphasis on the marketing of tried and true products or services	a strong emphasis on R&D, technological leadership, and innovations
In reference to new lines of products or services, has your firm marketed in the past 5 years …	changes in product or service lines have been mostly of a minor nature	changes in product or service lines have usually been quite dramatic
In dealing with its competitors, my …	typically responds to actions which competitors initiate	typically initiates actions which competitors then respond to
In general, the top managers of my firm have…	a strong proclivity for low-risk projects (with normal and certain rates of return)	a strong proclivity for high-risk projects (with chances of very high returns)
In general, the top managers of my firm believe that	owing to the nature of the environment, it is best to explore it gradually via timid, incremental behaviour	owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives
When confronted with decision-making situations involving uncertainty, my firm…	typically adopts a cautious, wait-and-see posture in order to minimise the probability of making costly decisions	typically adopts a bold, aggressive posture in order to maximise the probability of exploiting potential opportunities

The items are adapted to the needs of our work and taken from those originally used by Covin and Slevin (1986, 1989)

4. Analysis and results

The correlations and descriptive statistics for variables are respectively presented in Table 4 and Table 5.

Table 4 - Descriptive statistics on all selected variables

Observations 415

Variable	Mean	Median	SD
FIRM_INNOV_INDEX	19.215	19	9.066
OUTSIDER	0.309	0	0.513
INTERLOCKS	0.216	0	0.303
OUTSIDER_MONITORING	35.1	34	27.9
OUTSIDER_SUPPORTING	49.7	47	29.1
ORIENTATION	29.9	28	2.7
FIRM_AGE	35.7	33	18.35
FIRM_SIZE	12.3	10	4.2
BOARD_SIZE	4.5	4	2.4
BOARD_MEETINGS	6.1	6	2.9

Table 5 - Correlation matrix

		10	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
1	FIRM_INNOV_INDEX										1
2	OUTSIDER									1	.102*
3	INTERLOCKS								1	.0	.152**
4	OUTSIDER_MONITORING							1	.079†	.055	.177**
5	OUTSIDER_SUPPORTING						1	.074†	.167**	.097*	.159**
6	ORIENTATION					1	.078†	.104*	.189**	.101*	.201**
7	BOARD_MEETINGS				1	.044	.099*	.109*	.098*	.078†	.075†
8	FIRM_AGE			1	.011	.051	.042	.036	.031	.022	.031
9	FIRM_SIZE		1	.048	.038	.038	.018	.110*	.108*	.101*	.098*
10	BOARD_SIZE	1	.021	.025	.044	.021	.107*	.151**	.177**	.104*	.073†

Notes: Pearson's product-moment correlation coefficients.
N = 415; 1-tailed: † p < .10; * p < .05; ** p < .01

Table 5 shows certain significant correlations. FIRM_INNOV_INDEX with OUTSIDER, FIRM_INNOV_INDEX with FIRM_SIZE, OUTSIDER with OUTSIDER_SUPPORTING, OUTSIDER with ORIENTATION, OUTSIDER with FIRM_SIZE and OUTSIDER with BOARD_SIZE, INTERLOCKS with BOARD_MEETINGS, INTERLOCKS with FIRM_SIZE, OUTSIDER_MONITORING with ORIENTATION, OUTSIDER_MONITORING with BOARD_MEETINGS, OUTSIDER_MONITORING with FIRM_SIZE, OUTSIDER_SUPPORTING with BOARD_MEETINGS and OUTSIDER_SUPPORTING with BOARD_SIZE are significantly correlated ($p < 0.05$). The variables FIRM_INNOV_INDEX with INTERLOCKS, FIRM_INNOV_INDEX with ORIENTATION, INTERLOCKS with OUTSIDER_SUPPORTING, INTERLOCKS with ORIENTATION, INTERLOCKS with BOARD_SIZE, OUTSIDER_MONITORING with BOARD_SIZE, FIRM_INNOV_INDEX with OUTSIDER_MONITORING and FIRM_INNOV_INDEX with OUTSIDER_SUPPORTING are strongly correlated ($p < 0.01$). FIRM_INNOV_INDEX with BOARD_MEETINGS, FIRM_INNOV_INDEX with BOARD_SIZE, OUTSIDER with BOARD_MEETINGS, OUTSIDER_MONITORING with OUTSIDER_SUPPORTING, ORIENTATION with OUTSIDER_SUPPORTING are weakly correlated ($p < 0.1$).

Table 6 - Results of hierarchical regression analysis of the innovation variable (FIRM_INNOV_INDEX)

	Model I	**Model II**	**Model III**	**Model IV**
control variables				
food	.011	.017	.013	.015
drinks	.09	.07	.03	.05
textiles	-.18	-.13	-.12	-.14
clothing	.09	.07	.06	.03
leather goods	.32	.25	.29	.23
wood	.05	.07	.18	.21
paper	.09	.37	.29	.39
chemical products	.028	.021	.044	.021
pharmaceutical preparations	.038	.15	.051	.15
plastic materials	.021	.10	.035	.10
metallurgy	.015	.19	.033	.19
metal products	.018	.041	.015	.015
electronic products	.019	.023	.010	.039
domestic appliances	.037	.038	.019	.026
machinary	.041	.021	.031	.018
furniture production	.009	.040	.037	.038
ORIENTATION	.23***	.15***	.14***	.13***
FIRM_AGE	.008	.011	.006	.005
FIRM_SIZE	.12*	.16*	.09*	.11*
BOARD_SIZE	.37**	.49**	.21**	.29**
BOARD_MEETINGS	.41**	.34**	.19**	.23**

independent variables				
OUTSIDER		.13*	.14*	.12*
INTERLOCKS		.28**	.21**	.19**
OUTSIDER_MONITORING		.30**	.29**	.18**
OUTIDER_SUPPORTING		.19**	.17**	.16**
Interaction				
OUTSIDER_SUPPORTING x INTERLOCKS			.32**	
OUTSIDER_MONITORING x INTERLOCKS				.42**
A N O V A				
F sign	11.39***	13.61***	14.52***	15.09***
R2	0.18	0.28	0.31	0.32
Adj R2	0.16	0.26	0.29	0.30
ΔR2	0.18	0.10	0.03	0.04
F change	19.98***	4.051**	7.01**	6.87**

Note: Standardised regression coefficients are displayed in the table.
N = 415; 1-tailed: † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

The hypotheses were tested using a hierarchical regression model. The model examines the dynamic interaction among the variables and their relationship with *innovation* (*variable FIRM_INNOV_INDEX*) in the firms in the sample. The results of these analyses are brought together in table 6. The first thing we did was simply to place the control variables in *Model I*. The results are reported in the first column of table 6. This model explains about 18% of the variance with *F,* which is equal to 11.39 (significance at 0.001 level). A positive effect can be noted for FIRM_SIZE and BOARD_SIZE, suggesting that larger firms and boards have positive effects on innovation, just as a higher number of board meetings has positive effects and, what is more, the ORIENTATION variable has a positive impact on innovation. In the next step, we analysed *Model II*, inserting the independent variables corresponding to the tests of hypotheses *1*, *2*, *3* and *4*. The results are reported in the second column of table 6. *Model II* makes a more significant contribution than *Model I* and the significant improvement in model fit is given by ΔR2= 10% with *Fchange* equal to 4.051, significance at $p < 0.01$. Within *Model II*, when the regression coefficients are examined, the findings suggest that:

- outside directors on the board are associated with more strategic innovation (*OUTSIDER* variable, $p < 0.05$), as anticipated by hypothesis *1*.
- outside board members who effectively perform monitoring tasks have a positive effect on the firms net value creation (OUTSIDER_MONITORING variable, $p < 0.01$), as anticipated by hypothesis 2.
- outside board members who effectively perform supporting tasks have a positive effect on the firms net value creation (OUTIDER_SUPPORTING variable, $p < 0.01$), as anticipated by hypothesis *3*.
- The sharing of directors by family firms (belonging to the same inter-firm network) has a positive impact on the firms net value creation (*INTERLOCKS* variable, $p < 0.01$), as anticipated by hypothesis *4*.

We tested our other hypotheses in the third and fourth Model of table 6, by entering the interaction effects. The hierarchical approach is necessary since an interaction effect exists if, and only if, the interaction term gives a significant contribution over and above the main effects only model (COHEN & COHEN, 1983). The following two columns of table 6 present the findings when each of the two two-way interaction terms corresponding to hypotheses *5* and *6* are added to the equation. In particular, column 3 of table 6 presents the results of adding a term for the interaction between the performing of supporting tasks by outside directors (*OUTSIDER_SUPPORTING*) and the situation in which outsiders are also shared with other firms in the same network (*INTERLOCKS*). The adding of the interaction term does give a statistically significant improvement in model fit. In fact, it explains variance increases of 3% and this increase is statistically significant (*Fchange* = 7.01, $p < 0.01$). Therefore, with regard the interaction term *OUTSIDER_SUPPORTING_INTERLOCKS*, the regression coefficient is positive and statistically significant at $p < 0.01$ and, therefore, this empirical analysis provides support for hypothesis *5*. Finally, in column 4 of table 6, the results are reported of the addition of the term for the interaction between the performing of monitoring tasks by outside directors (*OUTSIDER_MONITORING*) and the situation in which outsiders are also shared with other firms in the same network (INTERLOCKS). The addition of this interaction term gives an explanatory contribution over and above the main effects only model. Explained variance increases by 4% and this increase is statistically significant (*Fchange* = 6.87, $p < 0.01$). With regard the interaction term *OUTSIDER_MONITORING_INTERLOCKS*, the regression coefficient is positive and statistically significant at $p < 0.01$, therefore this empirical analysis provides support for hypothesis 6. The fact that these two regression coefficients are significant and positive also means that supporting and

monitoring tasks performed by interlocks generates additional effects with respect to those that simple outsiders generate on the network participating firm's ability to create innovation.

The model III and IV are fit and respectively explain about 31% and 32% of the variance with *Fsign* = 14.52 and 15.09, significance at the 0.001 level.

Finally, we examined the variance inflation factor (VIF) of each independent variable in the regression model, in order to detect potential problems with multicollinearity. VIF values were particularly low in models I, II, III e IV (range 1.3-1.9), so multicollinearity is generally not a problem in our study.

5. Discussion and conclusion

We started this work by looking at the relationships which are established between family firms which belong to the same firm network and which enter into a network contract. We looked at these relationships from a RBV type strategic perspective according to which inter-firm relationships are the instrument through which different firms reciprocally exploit the complementarity of each other's resources, which continue to be the property of the different individual firms.

From an RBV perspective, it is the complementarity and desirabilty of resources held by a potential (or actual) partner that acts as an incentive to a firm to establish (or maintain) a collaborative relationship with that partner (Richardson 1972; Gulati 1998; Gulati 2000; Zona *et al*, 2018). Inter-firm relationships, which permit the reciprocal exploitation of the complementarity of other firms' resources, have an important positive impact on the ability of the individual partner firms to generate innovation and, therefore, create firm value. Indeed, in line with the Schumpeter approach, which considered innovation to be an occasion to substitute firms' old combinations of resources (Schumpeter, 1934), firms need to combine new resources, or find new ways of combining existing ones, in order to create new or better products and services (Moran and Ghoshal, 1996; Tsai and Ghoshal, 1998). Innovation requires diverse resource inputs (e.g. Kanter, 1988) and combinative capacities (Kogut and Zander, 1992). Inter-firms relationships both permit the exploitation of new resources (those of the partenrs) and their combination with those that the firm already has, and the discovery of new ways to combine existing resources by making use of partners' knowledge and experience.

However, the theoretical RBV system recognises the risks relating to

inter-firm relationships and, in order to avoid them, presents the idea that there are isolating mechanisms (Rumelt 1984; Zona *et al*, 2018), such as property rights, casual ambiguity, learning and development costs, which intervene to protect the firm's resources and competences from imitation on the part of partners.

Firm governance should consider the opposing strategic requirements, in other words, the firm's need to exploit the complementarity of her resources with those held by a partner and that partner's need to avoid the risk that the firm's management will adopt behaviour which is detrimental to its interests. In reference to this governance problem, we have posed the following research question: can owner-managers of a family firm use the board of their firm as an instrument to improve their relationships with their partner firms?

In this sense, we think that the firm, in an attempt to stipulate/reinforce cooperative relationships, adapts its board composition so as to give an incentive to its various partners to provide or secure the essential resources that it is seeking. Partners only stipulate/reinforce relationships with the firm if they have a positive perception of the capacity that the governance of the firm has to guarantee the returns that they expect from such relationships. Indeed, a rational economic agent is unlikely to provide his own resources optimally to increase the firm's economic value if he believes that his contractual position is not sufficiently protected by the firm's governance (Baker et al., 2002). We have taken on the ideas of agency theorists and resource dependency theorists to make a hypothesis on how dynamics of board composition and function might have a positive impact on the ability of the sampled firms to introduce innovation. We have particularly looked at:

- the appointment of outside board members (H1);
- the performing by the outsider board member of so-called *monitoring* tasks, through which partners are assured that their contractual position will be sufficiently protected by the firm's governance against the risk that the firm's CEO (insider) might adopt behaviour which is detrimental to their interests (H2);
- the performing by the outsider board member of so-called *supporting* tasks, through which the outsider provides or secures essential resources through connections with the external environment (H3).

The board is an instrument which the owner-manager's family might use to fill structural holes in social networks outside the boundaries of the family firm (Lester & Canella, 2006; Essen *et al.*, 2015). In particular, Lester and Cannella (2006) assert that, through the appointment of interlocking directors onto their board, family business creates strong connections with other

family firms and, in this way, social capital is generated. Social capital is made use of when it is necessary to help an individual family firm cope with the specific problems it has. Examples of this might be when a firm has to deal with a capital constraint that hinders its internal growth, disputes within the family, disagreements in choosing the next leader or strategic inertia (LESTER and CANNELLA, 2006; ESSEN *et al. 2015*). A family firm might have to deal with any one, or more, of these important problems to guarantee its long term survival.

Therefore, we hypothesise that firms' ability to introduce innovation may be positively influenced by:

- the appointment of interlocks, in other words outsiders shared between family firms that belong to the same inter-firm network *(H4)*;
- the performing of monitoring tasks by interlocks (H5);
- the performing of supporting tasks by interlocks (H6).

The empirical analysis of a sample of 415 observations supports all of the formulated hypotheses. In particular, from a static perspective, which is inherent to the simple composition of company boards, the analysis shows that the participation on the board of non-family members, i.e. of outsiders, influences the capacity to create net value in family firms belonging to firm networks (H1). From a dynamic perspective, which is inherent to the functioning of the boards, the analysis shows that the more the performing of monitoring (H2) and supporting (H3) tasks by outsiders is effective, the higher the capacity to create net value is of the firms that avail themselves of these outsiders. Therefore, an initial conclusion is that the firm that adapts the composition of its board of directors to take into consideration its partners' needs for protection and to manage external dependencies creates higher net value within a network of firms. However, our analysis goes on to verify the positive effects that are generated by taking on an outsider who also serves as a member of the board of directors of another firm within the same firm network (i.e. an interlocking directorship shared between firms in the same firm network). In particular, in looking at the composition of boards, the analysis shows that the participation on the board of interlocks influences the capacity of family firms to create net value in firm networks (H4). We also show that interlocks' contribution to the creation of net value is greater than that provided by simple outsiders, in fact the regresion coefficient of the INTERLOCKS variable is higher than the regression coefficient of the OUTSIDER variable in the two final models (III and IV) in table 6. In looking at the dynamics of boards' operations, the analysis shows that the effective performing of monitoring (H5) and supporting (H6) tasks by interlocks

improves network firms' capacity to create net value. With regard the performing of both monitoring and supporting tasks, we also show that the contribution to the creation of net value provided by interlocks is always greater than that made by simple outsiders, in fact the regresion coefficients of the interactions between the OUTSIDER_MONITORING with INTERLOCKS (model III) and the OUTSIDER_SUPPORTING with INTERLOCKS (model IV) variables are both positive and statistically significant. We conclude that firms may include interlocks on their boards to reinforce and consolidate over time their relationships of coordination with the other firms within the network. The consequent reinforcing of network coordination mechanisms, conducted by interlocks, gives the supporting and monitoring tasks they perform an even more positive effect on the firm's ability to create net value. The conclusions to our paper are in line with the intuitions and conjecture found in the literature, according to which family firms have a great tendency to invest in long-term associations with partners. According to Palmer and Barber (2001) family firms set up associations which might take the form of longterm alliances with partners. Miller and Le Breton Miller (2006) explain that from a stewardship perspective, orientation toward the family firm's long-term survival is seen as a motivation to manage capital carefully and invest in long-lasting assets, like reputation and social capital, for the benefit of all stakeholders. The larger attention for family firms, than for non family firms of building strong relationships with partners leads us to believe that they take care over their governance structures and mechanisms because their partners may or may not consider them adequate. Long-term associations with partners are also much more easily formed within a family business whose CEOs are influential and have long tenures. Indeed, in these contexts, partners know that the management team is stable, that the family name is at stake, and that the family has both the discretion and incentive to fulfill commitments (DAS and TENG, 1998; 2001; SAXTON, 1997; ESSEN *et al.*, 2015). Appointments of outsiders, in general, and of interlocks, in particular, might be made with the intention of building long-term reputation, and creating social capital in the form of enduring associations with partners. This is consistent with Anderson and Reeb (2004) who outlined the phenomenon of family firms that lure well-networked board members who can help later generations with their contacts. Firms invest in social capital through norms of behaviour and access to resources such as mutuality, trust, and respect for one another. The benefits of this investment consist of knowledge sharing, lower transaction costs due to improved communication, and a coherence of action (LESTER and CANNELLA, 2006; ZONA *et al.*, 2018). Our study also has an important limitation, that is the data for this study were gathered in Italy.

Therefore, special attention should be given when generalising about our discoveries with regards other national contexts. What is more, data on the variables were obtained through interviews with the CEOs of the sampled firms, meaning that this study has to deal with the limits which are inherent to those studies which make use of interviews and questionnaires in their gathering of data. For a review of the principle limits to such studies, see, for example, Duncan and Hill (1985).

REFERENCES

Ahuja G. (2000). Collaboration networks, structural holes, and innovation: A longitudinal study. Administrative Science Quarterly, 45, 425-455.

Anderson R.C. & Reeb D.M. (2004). Board composition: balancing family influence in S&P 500 firms. *Administrative Science Quarterly*, 49, pp. 209-237.

Arono C.E., Ward J. L. (1997), Preparing Your Family Business for Strategic Change, *Family Business Leadership Series*, 9.

Bammens Y., Voordeckers W. & Van Gils, A. (2008). Boards of directors in family firms: a generational perspective. *Small Business Economics*, 31, pp. 163-180.

Baker G., Gibbons, R. and Murphy K. J. (2002), 'Relational Contracts and the Theory of the Firm', Quarterly Journal of Economics, Vol. 117, No. 1, pp. 39-84.

Barach J.A. (1984), Is There a Cure for the Paralyzed Family Board ?, *Sloan Management Review*, 3-12.

Barca F. (1994), *Imprese in cerca di padrone: proprietà e controllo nel capitalismo italiano*, Laterza, Bari.

Barnea A., Haugen R. & Senbet L. (1981). An equilibrium analysis of debt financing under costly tax arbitrage and agency problems. *Journal of Finance*, 36, 569-582.

Baysinger B., Kosnik R. D., Turk T. A. (1991), Effects of board and ownership structure on corporate R&D strategy, *Academy of Management Journal*, 34: 205-14;

Bazerman M. & Schoorman F. (1983). A limited rationality model of interlocking directorates. *Academy of Management Review*. 8: 206-217.

Becker G. (1964). *Human capital*, Columbia University Press, New York.

Ben-Amar W. & André P. (2006). Separation of ownership from control and acquiring firm performance: the case of family ownership in Canada. *Journal of Business Finance and Accounting*, 33, pp. 517-543.

Borch O.J., Huse M., 1993, Informal Strategic Networks and the Board of Directors, *Entrepreneurship Theory and Practice*, 18(1), 23-36.

Boyd B. (1990). Corporate linkages and organizational environment: A test of the resource dependence model. *Strategic Management Journal*, 11: 419-430.

Brunninge O., Nordqvist M. and Wiklund J. (2007), Corporate Governance and Change in SMEs: The E ects of Ownership, Board Composition and Top Management Teams, in Small Business Economics vol. 29.

Bruno A. (1999), *L'impresa minore nel processo di internazionalizzazione dei mercati*, Giappichelli, Torino.

Burt R.S. (1980). Cooptive corporate actor networks: A reconsideration of interlocking directorates involving American manufacturing. Administrative Science Quarterly, 25, 557-582.

Carney M. (2005). Corporate governance and competitive advantage in family firms. *Entrepreneurship Theory and Practice*, 29, 249-265.

Carney M., Van Essen M., Gedajlovic E.R., Heugens P.P. (2015), What do we know about private family firms? A meta analytical review, *Entrepreneurship Theory and Practice*, 39, (3), pp. 513-544.

Carpenter M. and Westphal J. (2001), 'The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision-making', Academy of Management Journal, Vol. 44, pp. 639-660.
Cascino S., Pugliese A., Mussolino D. and Sansone C. (2010). The Influence of Family Ownership on the Quality of Accounting Information. *Family Business Review*, 23 (3), pp. 246-265.
Chandler A.D. (1977), The visible hand: The managerial revolution in American business, Cambridge, MA: Belknap Press.
Chandler A.D. (1990), Scale and scope: The dynamics of industrial competition, Cambridge, MA: Harvard University Press.
Chen H., Chen T.J. (2003), Governance structures in strategic alliances: transaction cost versus resource-based perspective, Journal of World Business, 38, 1-14.
Chen H.L. & Hsu W.T. (2009). Family ownership, board independence, and R&D investment. *Family Business Review*, 22, pp. 347-362.
Chrisman J.J., Chua J.H. & Zahra S.A. (2003). Creating wealth in family firms through managing resources: comments and extensions. *Entrepreneurship Theory and Practice*, 27, pp. 359-365.
Chrisman J.J., Chua J.H. & Litz R.A. (2004). Comparing the agency costs of family and non-family firms: conceptual issues and exploratory evidence. *Entrepreneurship Theory and Practice*, 28, pp. 335-354.
Certo T., Daily C. & Dalton D. (2001). Signalling firm value through board structure: An investigation of initial public offerings. *Entrepreneurship Theory and Practice*, 26, 33-50.
Coleman J. (1988). Social capital in the creation of human capital, *American Journal of Sociology*, 94 (Supplement), 95-120.
Corbetta G. and Minichilli A. (2005), 'Il governo delle imprese italiane quotate a controllo familiare: I risultati di una ricerca esplorativa', Economia and Management, Vol. 6, pp. 59-77.
Cornforth C. and Edwards C. (1999). Board roles in the strategic management of non-profit organizations: Theory and practice. Corporate Governance, 7, 346-362. doi:10.1111/1467-8683.00165.
Covin J. G. and Slevin D. P. (1986), 'The Development and Testing of an Organizational-level Entrepreneurship Scale', in R. J. A. K. H. Ronstadt Hornaday Peterson Vesper (eds.), Frontiers of Entrepreneurship Research, Wellesley, MA: Babson College, 628-639.
Covin J.G. and Slevin D.P. (1989), Strategic Management of Small Firms in Hostile and Benign Environments, Strategic Management Journal 10(1), 75-87.
Cumberland D.M., Kerrick S.A., D'Mello J. and Petrosko J.M. (2015), Nonprofit Board Balance and Perceived Performance, Nonprofit Management & Leadership, vol. 25, no. 4, Summer 2015.
Das T.K. and Teng B.S. (1998), 'Between trust and control: Developing confidence in partner cooperation in alliances', Academy of Management Review, Vol. 23, pp. 491-512.
Das T.K. and Teng B.S. (2001), 'Trust, control and risk in strategic alliances', Organisation Studies, Vol. 22, pp. 251-283.
Davis G.F. and Greve H.R. (1997). "Corporate elite networks and governance changes in the 1980s." American Journal of Sociology, 103(1), 1-37.
D'Aveni R. (1990). Top managerial prestige and organizational bankruptcy. *Organization Science*, 2: 121-142.
Daily C. & Dalton D. (1994a). Bankruptcy and corporate governance: The impact of board composition and structure. *Academy of Management Journal*, 37: 1603-1617.

DAILY C. & DALTON D. (1994b). Corporate governance and the bankrupt firm: An empirical assessment. *Strategic Management Journal*, 15: 643-654.

DAILY C., JOHNSON J., ELLSTRAND A. & DALTON D. (1998). Compensation committee composition as a determinant of CEO compensation. Academy of Management Journal, 41 209-220.

DIMAGGIO, P.J. and POWELL, W.W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. American Sociological Review, 48, pp. 147-160.

DUNCAN G. and HILL D.H. (1985), An Investigation of the Extent and Consequences of Measurement Error in Labor-Economic Survey Data. *Journal of Labor Economics*, 3, (4), pp. 508-532

DYCK A. & ZINGALES L. (2004). The private benefits of control: An international comparison. *Journal of Finance*, 59, 537-600.

EISENHARDT K.M. (1989). Agency theory: an assessment and review. *Academy of Management Review*, 14, pp. 57-74.

ESSEN M., CARNEY M., GEDAJLOVIC E.R., HEUGENS P.P. (2015), How does family control influence firm strategy and performance? A meta_analysis of US publicly listed firms, *Corporate Governance: An International Review*, 23, 3-24.

FACCIO M., LANG L.H. & YOUNG L. (2001). Dividends and expropriation. *American Economic Review*, 91, pp. 54-78.

FAMA E.F. & JENSEN M.C. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26, pp. 301-325.

FIEGENER M.K. (2005), Determinants of Board Participation in the Strategic Decisions of Small Corporations, *Entrepreneurship Theory and Practice*, 29, 5, 627-650.

FIEGENER M.K., BROWN B.M., DREUX D.R. & DENNIS W.J. (2000). The adoption of outside boards by small private US firms. *Entrepreneurship and Regional Development*, 12, pp. 291-309.

FITCH R. & OPPENHEIMER M. (1970). Who rules the corporation? Socialist Revolution, 1, 73-108.

FORBES D. & MILLIKEN F.J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of Management Review*, 24: 489-505.

GALASKIEWICZ J. & BURT R.S. (1991). Interorganization contagion in corporate philanthropy. Administrative Science Quarterly, 36(1), 88-105.

GALES L. & KESNER I. (1994). An analysis of board of director size and composition in bankrupt organizations. *Journal of Business Research*, 30: 271-282.

GOMEZ-MEJIA L.R. & WISEMAN R.M. (2007). Does agency theory have universal relevance? A reply to Lubatkin, Lane, Collin, and Very. *Journal of Organizational Behavior*, 28, pp. 81-88.

GOODSTEIN J.G., BOEKER W.B. (1991), Turbulence at the Top: A New Perspective on Governance Structure Changes and Strategic Change, *Academy of Management Journal*, 34(2), 306-330.

GRANDORI A. (1997), Governance Structures, Coordination Mechanisms and Cognitive Models, Journal of Management & Governance, 1, Issue 1, pp 29-47;

GRANDORI A., SODA G. (1995), Inter-firm Networks: Antecedents, Mechanisms and Forms, Organization Studies, 16/2, 183-214.

GRANOVETTER M. 1985. Economic action and social structure: the problem of embeddedness. American Journal of Sociology. 91:481-510.

Greve H.R. (1996). Patterns of competition: The diffusion of a market position in radio broadcasting. Administrative Science Quarterly, 41(1), 29-60.
Grossman S., Hart O. (1986), "The costs and benefits of ownership: a theory of vertical and lateral integration", in *Journal of Political Economy,* vol. 94, n. 4.
Gulati R. (1998), *Alliances and networks*, Strategic Management Journal, 19, (293-317).
Gulati R., Nohria N. and Zaheer A. (2000), *Strategic Networks*, Strategic Management Journal, V. 21, (203-215).
Habbershon T. G., Williams M., & MacMillan I.C. (2003). A unified systems perspective of family firm performance. *Journal of Business Venturing, 18(*4), 451-465.
Hamel G. (1991). Competition for competence and inter-partner learning within international strategic alliances. Strategic Management Journal, 12: 83-103.
Hart O., Moore J. (1986), "Property rights and the nature of the firm", in *Journal of Political Economy,* vol. 98, n. 6.
Healy T. (2004). Social capital: Old hat or new insight? Irish Journal of Sociology, 13(1), 5-28.
Hermalin B.E. & Weisbach M. S. (2003). Boards of directors as an endogenously determined institution: a survey of the economic literature, *Economic Policy Review*, 9, pp. 7-26.
Hill C.W. & Snell S.A. (1988). External control, corporate strategy, and firm performance in research-intensive industries. *Strategic Management Journal*, 9, 577-590.
Hill R. C., & Hellriegel D. (1994). Critical contingencies in joint venture management: Some lessons from managers. Organizational Science, 5(4): 594-607.
Hillman A.J. & Dalziel T. (2003). Boards of directors and firm performance: Integration agency and resource dependence perspectives. *Academy of Management Review*, 28: 383-396.
Hillman A., Zardkoohi A. and Bierman L. (1999). "Corporate Political Strategies and Firm Performance: Indications of Firm-Specific Benefits from Personal Service in the US Government." Strategic Management Journal 20:67-81.
Hitt M.A., Hoskisson R.E., Kim H. (1997), International diversification: effects on innovation and firm performance in product-diversified firms, *Academy of Management Journal*, 40, 767-798.
Hung H. (1998), A Typology of the Theories of the Roles of Governing Boards, *Corporate Governance: An International Review*, 6, 2, 101-111.
Huse M. (2007). *Boards, Governance and Value Creation*, Cambridge University Press, Cambridge.
Jaffe D.T. (2005). Strategic planning for the family in business. *Journal of Financial Planning*, 18, pp. 50-56.
Jaggi B., Leung S. & Gul F. (2009). Family control, board independence, and earnings management: evidence based on Hong Kong firms. *Journal of Accounting and Public Policy*, 28, pp. 281-300.
Jaskiewicz P. & Klein S. (2007). The impact of goal alignment on board composition and board size in family businesses. *Journal of Business Research*, 60, pp. 1080-1089.
Johannisson B., Huse M. (2000), Recruiting Outside Board Members in the Small Family Business: An Ideological Challenge, *Entrepreneurship and Regional Development*, 12(4), 353-378.
Johnson G. (1988), Rethinking Incrementalism, Strategic Management Journal 9, 75-91.
Johnson J., Daily C. & Ellstrand A. (1996). Boards of directors: A review and research agenda. *Journal of Management*, 22: 409-438.
Jones C.D., Makri M. & Gomez-Mejia L.R. (2008). Affiliate directors and perceived risk

bearing in publicly traded, family-controlled firms: the case of diversification. *Entrepreneurship Theory and Practice*, 32, pp. 1007-1026.

JUDGE W. Q. & DOBBINS G.H. (1995). Antecedents and effects of outside director's awareness of CEO decision style, *Journal of Management*, 21: 43-64.

KANTER R.M. (1988), When a thousand flowers bloom: structural, collective, and social conditions for innovation in organizational, In: Straw, B.M., Cummings, L.L. (Eds.), Research in Organizational Behavior, vol. 10, 169-211, JAI Press, Greenwich, CT.

KECK S.L. (1997), Top Management Team Structure: Differential Effects by Environmental Context, *Organization Science*, 8, 2, 143-156.

KETS DE VRIES M.F.R. (1993), The Dynamics of Family Controlled Firms: The Good and the Bad News, *Organisational Dynamics*, 21(3), 59-71.

KIM Y. & CANNELLA A. (2008). Toward a Social Capital Theory of Director Selection, *Corporate Governance*, vol. 16, n° 4, p. 282-293.

KOGUT B., ZANDER U. (1992), Knowledge of the firm, combinative capabilities, and the replication of technology, Organization Science, 3, 3, 383-397.

LEONARD D., SENSIPER S. (1998), The Role of Tacit Knowledge in Group Innovation, *California Management Review*, 40, 3, 112-132.

LESTER R. H. (2003). *A Road Less Traveled: Investigating the Outside Directors of America's Corporate Boards*, États Unis, Texas: Texas A&M University, Ph.D.

LESTER R.H., and CANNELLA A.A. (2006). "Interorganizational Familiness: How Family Firms Use Interlocking Directorates to Build Community Level Social Capital." Entrepreneurship Theory and Practice 30 (6): 755-75.

LEVITT B. & MARCH J.G. (1988). Organizational learning. Annual Review of Sociology, 14, 319-340.

LUBATKIN M.H., SCHULZE W.S., LING Y. & DINO R.N. (2005). The effects of parental altruism on the governance of family-managed firms. *Journal of Organizational Behavior*, 26, pp. 313-330.

LUMPKIN T. G. and DESS G.G. (1996), Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance, Academy of Management Review 21(1), 135-172.

LONG T. (2007). The evolution of FTSE 250 boards of directors: Key factors influencing board performance and effectiveness, *Journal of General Management*, 32 (3), pp. 45-60.

MACE M. L. (1986), *Directors: Myth and Reality*, Boston, Harvard Business School Press;

Malhotra N.K. (1997), *Marketing Research: An Applied Orientation*, Prentice-Hall, New York.

MAMAN D. (2000). Who Accumulates Directorships of Big Business Firms in Israel? Organizational Structure, Social Capital and Human Capital. *Human Relations*, vol. 53, n° 5, p. 603-629.

MARIOLIS P. (1975). Interlocking directorates and control of corporations: the theory of bank control. Social Scince Quarterly. 56:425-39.

MELIN L., HELLGREN B. (1994), *Patterns of Strategic Processes: Two Change Typologies, in H.T.R.D.*, Thomas O'Neal White Hurst (eds.), *Building the Strategically- Responsive Organisation*, Chichester, Wiley.

MEYER M.W., ZUCKER L.G. (1989), *Permanently Failing Organizations*, Newbury Park, Sage.

MILLER-MILLESEN J.L. (2003). Understanding the behavior of nonprofit boards of directors: A theory-based approach. Nonprofit and Voluntary Sector Quarterly, 32, 521-547. doi:10.1177/0899764003257463.

MILLS C.W. (1958). The power elite. New York: Oxford University Press.

Mintz B, Schwartz M. (1985). The Power Structure of American Business. Chicago: Univ. Chicago Press.
Mizruchi M.S. (1996). What do interlocks do? An analysis, critique, and assessment of research on interlocking directorates. Annual Review of Sociology, 22, 271-298.
Molina-Morales F.X., Martinez-Fernández M.T. (2004), How much difference is there between industrial district firms? A net value creation approach, in *Research Policy*, vol. 33.
Montemerlo D. (2000), Il governo delle imprese familiari, Milan: Egea.
Moran P., Ghoshal S. (1996), Value creation by firms, In J. B. Keys & L. N. Dosier (Eds.), Academy of Management Best Paper Proceedings, 41-45.
Nordberg D. (2008). The ethics of corporate governance, *Journal of General Management*, 33 (4), pp. 35-52.
Nicholson G.J., Malcolm A. & Geoffrey C.K. (2004). Defining the Social Capital of the Board of Directors: an Exploratory Study. *Journal of the Australian and New Zealand Academy of Management*, vol. 10, n° 1, p. 54-72.
Nunnally J.C. (1978), *Psychometric Theory*, McGraw-Hill, New York.
Pagano M., Panetta F., and Zingales L. (1998), Why do companies go public? An empirical analysis. *Journal of Finance*, 53, pp. 27-64.
Palmer D. (1983). Broken ties: Interlocking directorates and intercorporate coordination. *Administrative Science Quarterly*, 28: 40-55.
Palmer D.A., and Barber B. (2001), 'Challengers, elites and owning families: A social class theory of corporate acquisitions', Administrative Science Quarterly, Vol. 46, pp. 87-120.
Palmer D.A., Jennings P.D., & Zhou X. (1993). Late adoption of the multidivisional form by large U.S. corporations: Institutional, political, and economic accounts. Administrative Science Quarterly, 38, 100-131.
Peng M.W., Ahlstrom D., Bruton G. & Jiang Y. (2008). Corporate governance in emerging economies: A review of the principal-principal perspective. *Journal of Management Studies*, 45(1), 196-220.
Pearce J. & Zahra S. (1992). Board composition from a strategic contingency perspective. *Journal of Management Studies*, 29: 411-438.
Pettigrew A., Whipp R. (1991), *Managing Change for Competitive Success*, London, Blackwell.
Pettigrew A.M. 1992. On studying managerial elites. Strategic Management Journal, 13 (Special issue – Fundamental Themes in Strategy Process research, winter 1992): 163-182.
Pfeffer J. (1972), Size and composition of corporate boards of directors: the organization and its environment, *Administrative Science Quarterly*, 17, pp. 218-228.
Pfeffer J., Salancik G.R. (1978), *The External Control of Organizations: A Resource Dependence Perspective*, New York, Harper and Row.
Porter M.E. (1990), *The competitive advantage of nations*, The Free Press, New York.
Portes A. (1998). Social capital: Its origins and applications in modern sociology. Annual Review of Sociology, 98(6), 1-24.
Poutziouris P.Z., Steier L.P., Smyrnios K.X. (2004), Guest Editorial: A Commentary on Family Business Entrepreneurial Developments, *International Journal of Entrepreneurial Behaviour and Research*, 10(1/2), 7-11.
Pugliese A., Bezemer P.J., Zattoni A., Huse M., Van den Bosch F.A. & Volberda H.W. (2009). Boards of directors' contribution to strategy: a literature review and research agenda. *Corporate Governance: An International Review*, 17, pp. 292-306.

Rao H., Davis G.F., & Ward A. (2000). Embeddedness, social identity and mobility: Why firms leave the NASDAQ and join the New York Stock Exchange. Administrative Science Quarterly, 45, 268-292.

Richardson G.B. (1972), *The organization of industry*, Economic Journal, 82, pp. 883-896.

Rindova V. (1999). What corporate boards have to do with strategy: A cognitive perspective. *Journal of Management Studies*, 36: 953-75.

Rumelt R.P. (1984), *Towards a strategic Theory of the Firm*, in Lamb R., *Competitive Strategic Management*, Englewood Cliffs, NJ, Prentice-Hall, pp. 556-570.

Saxton T. (1997), 'The effect of partner and relationship characteristics on alliance outcomes', Academy of Management Journal, Vol. 40, pp. 443-461.

Schiavone F. (2013), Governance, Reti d'imprese e Distretti Industriali: considerazioni metodologiche, Economia Aziendale online.

Schulze W.S., Lubatkin M.H., & Dino R.N. (2003). Exploring the agency consequences of ownership dispersion among the directors of private family firms. *Academy of Management Journal*, 46, 179-194.

Schulze W. S., Lubatkin M.H., Dino R.N. (2002), Altruism, Agency and the Competitiveness of Family Firms, *Managerial and Decision Economics*, 23, 247-259.

Schulze W., Lubatkin M., Dino R., & Buchholtz A. (2001). Agency relationships in family firms Theory and evidence. *Organization Science*, 12, 99-116.

Schumpeter J.A. 1934 (Reprinted in 1962), The theory of economic development: An inquiry into profits, capital credit, interest and the business cycle, Cambridge, MA, Harvard University Press.

Shan W., Walker G., & Kogut B. (1994). Inter-®rm cooperation and startup innovation in the biotechnology industry. Strategic Management Journal, 15: 387-394.

Sharma P., Chrisman J.J., Chua J.H. (1997), Strategic Management of the Family Business: Past Research and Future Challenges, *Family Business Review*, 10 (1), 1-35.

Shleifer A. and Vishny R. (1997), 'A survey of corporate governance', Journal of Finance, Vol. 52, No. 2, pp. 737-783.

Setia-Atmaja L., Tanewski G.A. & Skully M. (2009). The role of dividends, debt and board structure in the governance of family controlled firms. *Journal of Business Finance and Accounting*, 36, pp. 863-898.

Sharma P., Chrisman J.J. & Chua J.H. (1997). Strategic management of the family business: past research and future challenges. *Family Business Review*, 10, pp. 1-36.

Silva F. & Majluf N. (2008). Does family ownership shape performance outcomes? *Journal of Business Research*, 61, pp. 609-614.

Sirmon D.G. & Hitt M.A. (2003). Managing resources: linking unique resources, management, and wealth creation in family firms, *Entrepreneurship Theory and Practice*, 27, pp. 339-358.

Stanworth P. & Giddens A. (1975). The modern corporate economy: Interlocking directorates in Britain 1906-1970. Sociological Review, 23, 5-28.

Steijvers T., Voordeckers W. & Vanhoof K. (2010). Collateral, relationship lending and family firms. *Small Business Economics*, 34, pp. 243-259.

Tsai W., Ghoshal S. (1998), Social capital and value creation: The role of intrafirm networks, *Academy of Management Journal*, 41, 464-476.

Taylor B., Dulewicz V. & Gay K. (2008). How part-time directors create exceptional value: New evidence from the non-executive director awards, *Journal of General Management*, 33 (4), pp. 53-70.

Van Doorn S., Heyden M.L.M., Volberda H.W. (2017), Enhancing Entrepreneurial Orientation in Dynamic Environments: The Interplay between Top Management Team Advice-Seeking and Absorptive Capacity, *Long Range Planning*, 50 (2), pp. 134-144.

Voordeckers W. & Steijvers T. (2006). Business collateral and personal commitments in SME lending. *Journal of Banking and Finance*, 30, pp. 3067-3086.

Westphal J.D. & Zajac E.J. (1997). Defections from the inner circle: Social exchange, reciprocity, and the diffusion of board independence in U.S. corporations. Administrative Science Quarterly, 42(1), 161-183.

Williamson O. (1984), 'Corporate governance', Yale Law Journal, Vol. 93, pp. 1197-1229.

Zahra S.A., Pearce J.A. III (1989), Board of Directors and Corporate Financial Performance: A Review and Integrative Model, *Journal of Management*, 15, 291-334.

Zhang P. (2010), Board Information and Strategic TasksPerformance, in Corporate Governance: An International Review, Vol. 18, n. 5.

Zona F., Gomez-Mejia L.R., Withers M. C. (2018), Board Interlocks and Firm Performance: Toward a Combined Agency-Resource Dependence Perspective, *Journal of Management*, 44 (2), pp. 589-618.

This paper analyses how the board composition of a small or medium-sized firm (SME) within an inter-firm network can improve that firm's capacity to create net value for itself and the network to which it belongs. With this aim, we established a panel of 415 sampled companies belonging to inter-firms networks. We interviewed the CEOs of these companies and gathered, on one hand, data regarding the creation of net value and, on the other hand, data inherent to the companies' governance structures and mechanisms. We found that the effective performance of control and service tasks by outside directors has positive effects on the capacity of the individual company in a network to create net value. In addition, the individual firm's capacity to create net value increases when an outsider is in an interlocking directorship with another firm within the same network.

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