

Board Diversity in Family Firms

Abstract

The paper deals with diversity as a key factor to improve the board of directors' decision process in family firms. In family firms, the agency problem between the owner and the manager is weaker than in firms with dispersed ownership and the board of directors' controlling function is less needed than its mentoring role. As a consequence, family firms represent a useful experimental environment where to study the board effectiveness in counseling. The theoretical literature about the heterogeneity of a group shows mixed conclusions. While some authors emphasize that different information, knowledge and abilities incentive creativity and innovation, others stress the consequences in terms of inter-group bias and risk of misunderstanding. The empirical literature about diversity in board of directors points at the positive impact of diversity on board functioning and firm performance. The paper uses a statistical diversity index to capture the heterogeneity of board of directors and put it in relation with firm performance, as measured by firm profitability. The empirical analysis is based on a newly collected panel of 400 family firms including data on their board of directors during the period 2003-2007. We find that firm performance is positively related to a global measure of board diversity. In particular, the presence of gender diversity and a good mix of executive and non-executive managers show the strongest econometric significance, suggesting that diversity is an important factor to improve board decisions.

Keywords: diversity, board composition, family firms

Preliminary draft. Please do not quote.

1. Introduction

A significant part of the literature on board of directors analyzes board functioning on the basis of the agency theory and discusses the potential moral hazard problem that affects it. To this respect, authors have primarily focused on board composition and in particular on the presence of independent and not independent directors.

When the board decision-making process is considered, it is important to analyze board composition as defined by the directors' qualities and skills and the degree of heterogeneity that characterized the board itself, coherently with the resource dependence perspective (Pfeffer and Salanick, 1978). In particular, when directors are viewed in their counseling role, not only their status as insiders or outsiders but also their cultural, social, and demographic characteristics define their position and contribution to the board. In this paper we will attempt to reconcile the two perspectives, resources based view and principal-agent view, by proposing an empirical analysis of board composition on the basis of a comprehensive definition of diversity. The empirical analysis concerns Italian family businesses. The economic literature on family firms has mostly analyzed their governance issues on the basis of the principal-agent theory, concluding that more likely agency costs are lower in family than in non-family firms. As a consequence, family firms represent an interesting experimental environment to study the relationship between board characteristics, its decision-making process and, in the end, firm performance because in family firms such relationship is freed up from most, if not any, agency-related distortions. Among all board characteristics, diversity has lately received increasing attention from the economic literature. The degree of differentiation of boards, defined by the mixture of the directors' cultural, professional and demographic attributes, has been put into relation with the organizational performance. In particular, different boards are expected to differently exert their mentoring role while they will probably perform their control function in a similar way.

This paper studies the effects of board diversity on firm performance. In most of the literature on (board) diversity, heterogeneity is measured by the incidence of any diversity factor on

the board, that is by the proportion of directors who show that characteristic. For example, gender diversity is often measured by the percentage of women sitting on the board. This approach defines diversity as the prevalence of a particular feature. On the contrary, in this paper, a concrete, statistical measure of diversity (the Blau index), is used. A diversity index is computed for any relevant characteristic (namely, director gender, origin, age, functional background, family belongingness) together with a total, or comprehensive, board diversity index. To our knowledge, this is the first attempt to relate firm performance to such a complex definition of board diversity.

The remainder of the paper contains the empirical analysis of the relationship between board diversity and firm performance. Section 2 defines diversity and explains the diversity measures, section 3 describes the dataset, section 4 contains the research hypotheses, section 5 the econometric model, the empirical evidence and the discussion of results, section 6 concludes.

2. Diversity and the decision-making process

The cultural and social identities of people acting in the same group influence the members' thoughts and actions (Cox, 2001) and the group's decision-making process. Two or more actors provided with the same information may get to a different conclusion by virtue of what is subjectively considered essential or superfluous (Pitcher and Smith, 2001). In fact, the interpretation process and the subsequent evaluations are based on the decision maker's background and specific characteristics.

The effects of the *type* of diversity on a group's operational effectiveness and efficiency are the object of different lines of thought.

A first approach tends to attribute to the variety of information a positive effect. The "information and decision-making theory" (Cox et al., 1991) argues that the presence of individuals belonging to different networks creates a broader set of information, knowledge and skills that contribute to improving the decision-making capacity, especially with regard to non-routine aspects. The wider information set seems to stimulate creativity, innovation and performance (Amabile et

al., 1996). In contrast, in a homogeneous group, no one would create a unique added value.

A second strand of the literature concerns social categorization and the formation of subgroups. The “social categorization theories” argue that the differences within a group induce members to compare their characteristics and to create sub-groups (Turner, 1987). Everyone tends to like its own subgroup, to support it and to trust it. The consequent “in-group” and “out-group” trends might lead to conflicts, that might be detrimental to the managerial effectiveness. A parallel conceptual paradigm, based on the “similar attraction theory”, reaches the same conclusions, assuming that similar people are able to communicate and to understand each other in a easier way, thus reducing the risk of misunderstanding (Schneider, 1987). A group composed of individuals characterized by the same cultural and social heritage would benefit from greater cohesion and therefore would represent a natural environment for transferring and sharing information. Similarities between group members would intensify the communication process by multiplying the chances of formal and informal meetings.

Jehn et al. (1999) mediate among the two previous positions and identify two types of diversity: a generic diversity, defined by sex, age, ethnicity and geography, and a specific diversity, characterized by education, work experience, social class and marital status. The generic diversity would tend to decrease cohesion, interaction and satisfaction within the team and to encourage the formation of homogeneous groups, while the specific diversity would bring different knowledge and skills into the group and improve the decision-making process.

Finally, some authors believe that group diversity may be neutralized by a sort of “consensual thinking”, that would overcome the possible arguments induced by diversity. According to the “groupthink theory” (Irving, 1972), the group members tend to reduce the conflicts and reach a consensus by moderating their critical assessment of ideas. Individual creativity, originality and independence of thought would be sacrificed in exchange for the group cohesion.

2.1 Definitions and measures of diversity

Diversity is what characterizes an individual with respect to another, making “the others” being perceived as “different” (Triandis et al., 1999). Diversity can be understood as the difference found in the cultural identity and in the social and demographic characteristics of individuals acting within a group. Given these definitions, the question is how do we delineate the homogeneity or heterogeneity of a group. In quantitative terms, diversity can be measured by the distribution of a particular attribute among the members of a community (Klein, 2007). While it seems obvious that the difference is null when all people in the group show the same attribute (for example, all men or all women when gender diversity is concerned), the concept of maximum diversity is harder to define. When the attribute can be owned by a different extent by different people, is diversity at its maximum when one-half of persons possesses the attribute in great quantity and the other half in tiny quantity, or when one person owns more of that attribute than all others?

Diversity is a heterogeneous concept. Harrison and Klein (2007) suggest three classes of diversity: diversity as a factor of “separation”, diversity as “disparity or inequality”, diversity as “variety”. In the first case, the attribute upon which diversity is measured can be represented by a continuous variable whose different values only separate people and do not attribute them any status. Diversity is minimum when the attribute’s level is the same for everyone (for example, they all have the same age) and maximum when the attribute assumes its minimum value for half the members and its maximum for the other half (for example, they are half minors and half octogenarians). Diversity as a “disparity” or “inequality” requires the attribute to be described by a continuous variable with *vertical differentiation*. For example, considering the capacity of control attribute, the difference is minimal when all members are equally powerful and maximum when all the power is in the hands of one person only. Diversity can be defined as “variety” in the presence of a categorical attribute (for example, type of degree). In this case, diversity is minimum if all the members belong to the same category and maximum if everyone belongs to a different category.

A multi-faceted definition of diversity requires different measures of it. For diversity as separation, the appropriate measure can be traced back to the standard deviation and the average Euclidean distance (Klein, 2007). The two indicators are very similar and both have limitations, like the impossibility of comparing attributes that vary within different ranges. If diversity is related to quality attributes measured by categorical variables, the standard deviation can be useful only in the case of binomial variables. For multinomial variables the indices of Blau and Shannon (Bunderson and Sutcliffe, 2002) are the most appropriate, since they will reach the maximum value in the presence of an equitable distribution of the members among all the categories of the attribute.

The Blau index is given by:

$$\mathbf{Blau\ index} = 1 - \sum_{k=1}^K p_k^2 \quad (1)$$

where: k =attribute level, with $k=1, \dots, K$; p_k is the proportion of directors who show the attribute k . The Blau index varies from 0 to $(K-1)/K$. For example, if the attribute “gender” is considered, the Blau index would be equal to 0.5 when a team of 4 people is composed by 2 men and 2 women.

The Shannon index is given by:

$$\mathbf{Shannon\ index} = - \sum_{k=1}^K p_k \ln p_k \quad (2)$$

where: k =attribute level, with $k=1, \dots, K$; p_k is the proportion of directors who show the attribute k . The Shannon index varies from 0 to $-\ln\left(\frac{1}{k}\right)$: in the previous example about sex, the Shannon index’s maximum would be 0.3.

Finally, if the diversity is understood as “disparity” or “inequality”, it is appropriate to measure it with the coefficient of variation. Being a ratio between the standard deviation and the average, the coefficient of variation captures the level of asymmetry, which is a fundamental characteristic of this type of diversity. Indeed, disparity reflects both the distance among the team

members and the degree of “dominance” exerted by those who possess the greatest amount of attribute.

The coefficient of variation varies from 0 to $\sqrt{(n-1)}$ where n is the number of group members: the coefficient is at its maximum when only one person owns the maximum quantity and the others the minimum quantity of the attribute.

In this paper, the Blau index will be used as a diversity measure, as in the literature it is considered the most appropriate one (Harrison and Klein, 2007).

3. Literature review

This section offers a review of the finance and managerial literature on diversity. The literature on board composition and family boards is not reviewed here but references to these topics are included in the hypotheses presentation and discussion that follow, when relevant.

Previous works attesting a positive effect of diversity on economic performance mainly deal with *gender* diversity and are based on the information decision making theory. Carter et al. (2003) study the relationship between the presence of female or Afro-American directors on Tobin’s Q in a sample of 1000 Fortune American firms, finding a positive effect of diversity on economic performance. Diversity is also positively correlated to firm size and negatively correlated to the number of insiders in the board. Firms with outsiders dominated boards seem more sensitive to diversity. The result is confirmed in a subsequent study on the composition of internal committees (Carter et al., 2008), in particular with reference to the compensation and audit committees.

Erhart et al. (2003) find a positive relationship between the incidence of female and/or black directors and performance, as measured by ROI, for a sample of 127 big American corporations. Marimuthu (2008) also find a positive effect of ethnic diversity on ROA for 200 non-financial Malaysian firms.

Campbell and Minguez-Vera (2007) study the impact exerted on Tobin’s Q by different measures of gender diversity and find that better results derive from a fair promotion of both

genders. A “purely statistical” index, the Blau index, shows the highest econometric significance compared to diversity as a percentage (of a particular group of “different” directors), thus suggesting that a diversity measure should capture the board *heterogeneity*.

Gender diversity is also good in risky or uncertain contexts, as showed by Francoeur (2008) for 230 Canadian listed firms. According to Jurkus et al. (2008), the external environment affects the gender diversity impact. In particular, the greatest benefits are expected where “woman” is a scarce resource: firms where the female incidence on the board is higher than the industry average (“up women firms”) show better economic results than firms with a lower female incidence, compared to the industry average (“down women firms”).

Boone and Hendricks (2007) consider the “functional background” diversity instead of gender diversity and find a positive relationship between the varieties of directors’ professional experiences the ROS. The effect is stronger in firms where managerial autonomy and previous work experience are firm values.

As a general result, when a negative impact of diversity on performance is found, the motivations rely on social categorization and diversity itself is referred to not (only) as gender diversity. Smith et al. (1994) consider the high-tech workers’ previous experience in others industries, how long they have been employed in the high-tech sector, their academic and functional background and find that the employees’ prior experience in other industries have a positive effect on their (actual) employer while heterogeneity in career and academic background have negative effects. Simon et al. (1999) add a measure of “age diversity” to the explanatory variables and find that it has a negative impact on performance.

Auden et al. (2006) find similar results when ROA is studied in relation to three diversity dimensions: age, functional background, educational background. Workers’ age diversity is shown to exert a negative impact on performance through its effect, also negative, on the risk management capacity.

When gender diversity is concerned, Eklund et al. (2009) and Adams and Ferreira (2009) find a negative impact of the presence of female directors on economic performance when firms are induced or forced to recruit them by law or by the public opinion. As a consequence, the authors consider as premature the decision, taken at an institutional level, to force listed firms to include a certain percentage of women in their boards, especially in men-dominated sectors.

4. Dataset, family firms and measures of board diversity

The empirical analysis is based on a data set including accounting and corporate information of 327 Italian family firms for the period 2003-2007. Data were manually retrieved from the database AIDA and from the company balance sheets.

The companies were selected giving priority to family involvement. Given the prevalence of unlisted companies, companies are considered family firms if they are non-listed firms in which one or more families control at least 50% of voting rights; listed companies in which one or more families control at least 25% of voting rights; firms controlled by legal entities meeting the above requirements for family firms, in order to have a minimal representation of listed companies. Listed companies represent 20% only of the total. The ownership concentration is very high: about 40% of the firms is owned by one or two families; the figure goes up to almost 80% when you consider firms owned by no more than five entities (persons or other firms).

As control variables, we also include among regressors variables indicating whether the directors is a family member, whether the President has executive powers, the number of directors, the percentage of equity held the family, the debt/equity ratio and the number of employees.

For each variable we compute the Blau index according to (1). Table 1 reports some descriptive statistics for the considered diversity indexes. Diversity indexes can assume different maximum values depending on the number of attribute levels (Max Blau, in Table 1), so that each index has been normalized and divided by its maximum (Max N.). As a result, all normalized indexes range between 0 and 1.

Table 1. Diversity indexes

Variable	Obs.	Mean	Mode	St. Dev.	Min.	25%	Median	75%	Max Blau	Max N.
Gender D.I.	1635	0.38	0	0.39	0	0	0.33	0.75	0.5	1
Region D.I.	1635	0.35	0	0.31	0	0	0.39	0.64	0.75	1
Age D.I.	1635	0.63	0	0.29	0	0,51	0.69	0.85	0.66	1
Executive director D.I.	1635	0.62	0	0.34	0	0.44	0.75	0.89	0.5	1
Family D.I.	1635	0.63	0	0.37	0	0.40	0.75	0.96	0.5	1
Total D.I.	1635	2.62	2.44		0	2.06	2.73	3.3		4.41

Table 1 shows that boards have a relatively high degree of heterogeneity with regard to age and degree of involvement of the CEO and the family. The difference is very small in relation to gender, because men dominate boards, and to the geographical origin of directors.

We also calculate a “total diversity index” (variable “Total D.I.” in Table 1), intended to emphasize the importance of the heterogeneity in the board, regardless the specific diversity sources. The total diversity index is obtained as the sum of all the (normalized) diversity indexes and consequently it varies between 0 and 5.

We take ROA, which is the ratio of net operating income and total assets, and ROI, the return on capital invested in operating activities (ROI), as a measure of firm performance (see descriptive statistics in Table 2). Table 3 shows the Pearson correlations between the two performance indicators and the diversity indexes. ROA and ROI are highly correlated and therefore we alternatively use one of them as dependent variable in the econometric model.

Table 2. Performance ratios

Ratio	Obs.	Mean	Mode	St dev.	25% Quantile	Median	75% Quantile
ROA	1635	0.057	0.022	0.064	0.023	0.047	0.082
ROI	1635	0.116	0.028	0.126	0.043	0.085	0.155

Table 3. Correlation matrix

	ROA	ROI	Total D.I.	Region D.I.	Age D.I.	Executive director D.I.	Family D.I.	Gender D.I.
ROA	1							
ROI	0.702*** (0.000)	1						
Total D.I.	0.176*** (0.000)	0.101*** (0.001)	1					
Region D.I.	0.076***	0.048*	0.448***	1				

	(0.005)	(0.082)	(0.000)					
Age D.I.	0.079*** (0.003)	0.028 (0.301)	0.506*** (0.000)	0.155*** (0.000)	1			
Executive director D.I.	0.101*** (0.000)	0.074*** (0.007)	0.521*** (0.000)	0.070*** (0.007)	0.046* (0.077)	1		
Family D.I.	0.077*** (0.005)	0.058** (0.033)	0.607*** (0.000)	0.120*** (0.000)	0.131*** (0.000)	0.159*** (0.000)	1	
Gender D.I.	0.125*** (0.000)	0.052** (0.061)	0.551*** (0.000)	-0.039 (0.129)	0.134*** (0.000)	0.104*** (0.000)	0.130*** (0.000)	1

Pearson correlation between diversity indexes and profit ratios (p -values in parenthesis). ROA is the return on assets; ROI is the return on operating capital; “Gender D.I.”, “Age D.I.”, “Region D.I.”, “Executive director D.I.”, “Family D.I.” are specific diversity indexes; “Total D.I.” is a sum of all diversity indexes.

5. Research hypotheses

The interpretation of board of directors’ function and relevance has changed over time in the economic literature (Carpenter and Westphal, 2001). Before, boards were perceived as élite groups, composed by people with substantially homogeneous cultural and educational backgrounds and, therefore, with identical opinions about corporate strategies. On the contrary, recent economic theory and empirical research assign a primary role to board heterogeneity, saying that boards reflect the contemporaneous society and its cultural mixing. The transition from a mono-cultural to a multicultural company allows replicating the market characteristics within firm boundaries so as to ease the comprehension of industrial mechanisms and draw directors near to shareholders.

According to the "Upper-Echelons Theory", the greatest stimulus to the board decision process comes from the board cognitive diversity (Hambrich and Mason, 1984). In this paper, heterogeneity is partly measured by demographic variables such as gender, age and geographical origin. Actually, cognitive diversity is a more complex feature than demographics, being the reflection of values, perceptions, personality and, in general, “the state of mind” of individuals. However, differences in demographic characteristics are considered a good proxy for cognitive diversity.

Supported by the thought of Montaigne: “Et ne furent jamais au monde deux opinions pédagogiques pareilles, non plus que deux poils de fesses ou deux grains de mil. Leurs plus universelle qualité, c’est la diversité [...]” (Michel de Montaigne, 1580, Essays II, 37, 786)”, we believe that the presence, in the board, of individuals characterized by different cultural identities

and social behaviors helps enriching the set of available information, improves the decision-making process and has a positive impact on economic results:

H1. Diversity by itself, as expressed by the mix of all demographic variables, has a positive impact on performance.

This kind of diversity (here captured by the variable “Total D.I.”) is measured by the sum of all diversity indexes, equally weighted. Nevertheless, it is likely that each diversity index affects cognitive diversity by a different extent. Most economic and finance research has limited the analysis to gender and race diversities, considering them more influencing than other possible diversity measures. One alternative may be the director’s functional background and indeed preferences toward the latter exist (Jackson, 1992). As a consequence, we formulate the following hypothesis:

H2. “Total” diversity, as the sum of different diversity specifications, absorbs and levels off the diversity components, hiding their specific contribution to the economic performance.

The attention reserved to gender diversity is mainly linked to women’s relational skills, monitoring capacity, business involvement and personal charism (Dezso and Ross, 2008; Adams and Ferriera, 2009; Dobbin and Jung, 2011). Many empirical researches find a positive relationship between performance and gender diversity (Carter et al., 2003; Erhardt et al., 2003; Campbell and Minguez- Vera, 2007; Francoeur, 2008; Jurkus et al., 2008) while a few ones find a negative relationship (Eklund et al., 2009; Adams and Ferreira, 2009). It is important to stress that in all previous studies, gender diversity is measured by the proportion of women sitting in the board. To our knowledge, this paper is the first one where diversity is measured by an index that is in principle different from the proportion of women (and other groups within the board)..

H2a. There is a positive relationship between gender diversity and performance.

In the logic of the resource-based perspective, (Amit and Schoemaker, 1993; Barney, 1986; Peteraf, 1993; Teece et al., 1997) the company must collect resources which are unique and difficult to replicate by competitors. Human capital is perhaps the most difficult resource to copy and given that the age and a fundamental component of human capital “a right balance of age diversity in a firm often represents a mix of human capital that can make this firm differs from its competitor “ (Li et al., 2008, page 7).

Research about the effects of age diversity on performance is very scarce. Age diversity has been studied mainly at the level of individuals or groups (Williams and O'Reilly, 1998). Some authors say that older workers take advantage of the experience acquired over their long career to create social connections and develop a greater sense of belonging to the firm, compared to younger worker (Peterson and Spiker, 2005, Van Yoder, 2002). From another perspective, young people may excel in flexibility, creativity and energy (Beaver and Hutchings, 2005; Hatfield, 2002). Streufert et al. (1990) demonstrate that elders handle critical situations with the same effectiveness as middle-aged and young workers. Li (2008) find that age differences among staff workers in China have a positive and significant impact on ROA and no significant effects on labor productivity (Li, 2008).

On the basis of the previous analysis, we formulate the following hypothesis about age diversity in the board and profitability:

H2b. The impact of age diversity on performance is uncertain because the increase in capacity and resources resulting from the accumulation of young directors' human capital contrasts with the complexity induced by the coexistence of different generations.

Birth region, together with nationality, mother tongue and race, define a person's ethnic ties, that is, those aspects of social networks that are based on personal relationships (Zaheer et al., 2009). Firm manager could take advantage of such ethnic ties to improve their business connections with external stakeholders such as suppliers, customers, competitors, local government bodies (Gao,

2003; R.J. Jean et al., 2011). In Italian family firms, ethnic diversity is mainly defined by the birth region, being most workers and directors Italians, thus sharing a common culture and ancestry and speaking the Italian language. Diversity in birth region among executives and directors is often exploited by firms in building commercial relations with domestic suppliers.

H2c. In Italian family firms, differences in birth region among board directors are limited. As a consequence, the relationship between age and the performance leads to uncertain results.

As seen above, some authors suggest a positive relationship between functional diversity and background and profitability. According to Boone and Hendricks (2007), this relationship would be more pronounced in firms where the decision making process is largely decentralized, as it happens when many directors are executives. This configuration would lead to a higher decision quality. The result is also confirmed by Smith, et al. (1994) for 150 high tech companies, whose managers have different experience (at the same firm), education and functional background (gained in other firms): the latter variable only has a positive effect on company results.

In this paper, the difference brought by the executive title wants to measure both the degree of diversity in sharing responsibilities in the decision-making process and the director different professional contributions.

H2d. The presence of executives improves the distribution of power within the board and benefits the decision-making process. A positive relationship between the diversity index related to the executive title and performance is expected.

There are reasons to expect that concentration of property rights and control in the hands of a family provides better incentive and contribute to reduce the agency costs that typically arise in publicly held firms (Jensen and Meckling, 1976). Gomez-Mejia *et al.* (2001) identify an advantage of family-owned firms in the existence of emotional motivations that might induce the owner-manager to pursue long-term strategies and, ultimately, to preserve the firm survival. The positive

relationship between family ownership concentration and performance has been proven by a large empirical literature based on performance differentials between family and non-family firms (Anderson and Reeb, 2003, for the U.S.; Sraer and Thesmar, 2007, for France; Favero *et al.*, 2006, for Italy; Barontini and Caprio, 2006, for Europe, among others). Here, again, it would be important to differentiate the ownership and management perspective.

H3. The exclusive presence of family directors or family CEO does not always imply better results.

Lauterbach and Vaninsky (1999) and Barth *et al.* (2005) warn about the risks associated with owner-management. In owner-managed firms top managers are typically recruited from a restricted pool of individuals (perhaps, within the strict perimeter of the family) rather than from a more general market of managers. As a consequence, the management teams of owned-managed firms, and in particular of family-managed firms, are likely to present a lower quality and turnover as compared to publicly held firms. A powerful owner-manager may pursue his/her own interest even to the detriment of the firm and of its minority shareholders (Jensen, 1998). For instance, an owner-manager may refuse new investments or ventures that can improve firm value if these may threaten the status quo or would imply too much effort to be realized. However, as Schulze *et al.* (2001, 2003a and 2003b) observe, the agency relationship in family firms are framed in a sort of parent-child relationship characterized by altruism. Although parental relationship may reduce, on the one hand, agency problems through lower costs of monitoring, parent altruism may harm firm performance, when top managers adopt a more indulgent behavior towards family members involved in the firm administration. Sciascia and Mazzola (2008) find that, the benefits deriving from lower agency costs induced by reduced information asymmetries, sense of belonging, high commitment among family members and possibly lower compensation, are insufficient to counterbalance the burden imposed by the lack of professional management competencies, internal conflicts and the seek for non-monetary returns by family members.

H3a. The presence in the board of non-family directors improves the board managerial skills and reduces the chances of familiar altruism. Diversity in terms of family and non-family directors has a positive impact on performance.

Several studies for the U.S. and Europe (Villalonga and Amit, 2006; Pérez-Gonzalez, 2006; Bloom and Van Reenen, 2007; Barontini and Caprio, 2006) find that family listed firms perform better only when the founder is the President or the CEO, whereas the presence of heirs would cause worse results. Anderson *et al.* (2009) find that founders and heirs in large, publicly traded U.S. firms, have an incentive to diminish corporate transparency and extract private benefits at the expense of minority investors. CEOs and top managers adopt a more indulgent behaviour towards family members involved in the firm administration. Such parent altruism could generate biased perceptions of the CEOs about their relatives' actual capability and could discourage outside managers from entering the family firms for fear to be discriminated in their career prospects. Schulze *et al.* (2001, 2003a and 2003b). The CEO succession represents a peculiar factor for family firms. On the one hand, it can be advantageous to choose a family successor even if the family candidate is less qualified than a non-family executive (Bennedsen *et al.*, 2007; Molly *et al.*, 2010) because managers and owners are expected to abstain from opportunistic and myopic attitudes that may hinder firm's survival. On the other hand, however, the tendency of the family not to lose the firm control might ultimately have negative consequences when it prevents a value-added acquisition from an external, more talented, bidder (Caselli and Gennaioli, 2006; Bloom and Van Reenen, 2007). Cucculelli and Micucci (2008), for instance, observe how inherited management within a family has a negative effect on firms' performance, and especially for those firms that experienced good profitability before the founder stepped down.

In our sample, about 70% of the board Presidents belongs to the family and in 60% of cases he is an executive. Furthermore, the majority of family (and Italian) firms is now in its second or third generation. The presence of a family President who also has executive powers increases the

agency problem thus possibly reducing transparency, increasing family altruism and facilitating the acquisition of personal benefits.

H3b. When family ownership is found together with operational responsibilities, as in the case of an executive family President, the performance worsens.

6. Empirical evidence and hypotheses discussion

We estimate the model:

$$Performance_{it} = \beta_0 + \beta_1 DIV_{it} + \beta_3 X_{it} + \lambda_t + \eta_i + \varepsilon_{it} \quad (1)$$

where $Performance_{it}$ is the performance ratio (ROA or ROI) of firm i at time t ; DIV_{it} is a set of firm i board diversity indexes, namely Gender Diversity Index (variable “Gender D.I.”), geographical origin (variable “Region D.I.”), “Age D.I.”, “Executive director D.I.”, “Family D.I.” and “Total D.I.” which is the sum of the previous indexes. The regressor X_{it} represents a set of control variables, that is: “Family President”, which is a dummy variable equal to 1 when the President of the board is a family member and 0 otherwise; “CEO duality” is a dummy variable equal to 1 when the President is also an executive director and 0 if he is non an executive; “Size” is the number of board directors; “F. ownership ” is the percentage of shares owned by the family members; “leverage” is the debt/equity ratio; “Ln(employees)” is the natural logarithm of the number of employees. Variable λ_t is a time effect common to all firms η_i is a permanent but non-observable firm specific effect and ε_{it} is the error term.

As pointed out, the two performance indicators ROA and ROI are highly correlated and, as a consequence, the models where they alternatively appear as dependent variables lead to essentially identical results. We show the fixed effects and random effects estimates (with ROA as dependent variable) in Tables 4 and 5.

Model 1 shows a positive and significant (with p-value lower than 1%) relationship between the degree of overall diversity of board members (“Total D.I.”) and profitability. The directors diversity *in the broadest sense*, that is the presence of male and female, young and old directors, possibly coming from different countries or Italian regions, with different executive powers and different relationships with the family owners, provides benefits in terms of profitability. As a consequence, H1 is confirmed: in boards where different cultures, backgrounds, mental attitudes are represented, the quality of available resources improves and so does firm performance.

However, when different definitions of diversity are considered, estimates show that the effect on firm performance is not homogeneous, as predicted by H2. Models 2, 3, 4, 5 and 6 test the relationship between each diversity index and ROA and in Model 7 all diversity indexes are included at a time as regressors. All kinds of diversity, both individually and simultaneously taken, have a positive effect on performance, but their impact, as expressed by the coefficients’ value and statistical significance, is somewhat different.

The gender diversity index is significant at the 1% level both in Model 2, where it is the only diversity variable, and in Model 7, where others diversity indexes are included. Hypothesis H2a is thus fully confirmed and so are previous results on gender diversity. It is worth noticing that in Model 7, the gender diversity shows the highest coefficient among all other diversity indexes. This is a strong result considering that about 50% of sample firms (and, accordingly to Bianco *et al.*, 2011, of Italian firms) have no women on board and that in very few companies directors are experienced female professionals.

Hypotheses H2b and H2c, regarding diversity by age and geographical origin, do not find a convincing answer in the estimates and do not dissipate the doubts about their relevance. The positive sign of the coefficients, both in Model 3 and 4 where they are the only diversity indexes, and in Model 7, where all diversity attributes are included, attests their contribution to firm profitability but their incidence is not statistically significant. This result deserves further investigation, although the variability of “Age D.I.” is high enough to provide convincing estimates.

The executive diversity index has a positive and significant effect on ROA both in Model 5 and in Model 7. The coefficient is stable in value and significance, thus attesting the robustness of the relationship. The hypothesis H2d is therefore confirmed: a balanced representation of directors with and without operational duties contributes to the decision-making process by leveraging the directors' specific skills acquired in their activity field.

The different extent to which the family is involved in the firm management is captured by three variables: "Family D.I.", which measures the directors' belongness to the family owner, "Family President", which is equal to 1 if the President is a family member, and "CEO duality", which is equal to 1 if the CEO is also the President. The first two variables have a positive but not significant effect on ROA while the third has a negative and significant effect on it. That is, the presence of non-family directors increases board diversity (as captured by the variable "Family D.I.") but does not significantly improve performance. Hypothesis H3a is therefore not verified or rejected. The family involvement in different managerial positions brings into question the relevance of the other two variables. Results would seem to indicate that a family President has a neutral effect on performance, since the coefficient of "Family President" is positive, but not significant. This is in contrast with the situation where the President also has operational authority, as expressed by the variable "CEO duality", which has a negative and significant effect on profitability: when executive powers are concentrated in the President's hands, the President himself might lose its role as a supervisor at the expenses of shareholders health (Rengher and Dalton, 2006). Furthermore, CEO duality would make it more difficult for the board as a whole to exert its control function thus increasing agency costs (Brickley et al., 1997, Fosberg and Nelson, 2000). Hypothesis H3b is therefore confirmed.

The estimates also confirm some important results previously found in the literature on board of directors. There is an inverse U-shaped relationship between performance and board size (the coefficient of Size is positive and the coefficient of Size² is negative): when the number of directors first goes up, profitability also improves but as long as the number of directors increases,

profitability decreases, possibly because too many directors create coordination problems and communication difficulties that undermine directors' effectiveness in controlling and governing the business (Hermalin and Weisbach, 2001).

7. Conclusions

The paper investigates the relationship between board diversity and firm performance within family businesses. We define board diversity according to five different characteristics: directors' gender, age, geographic origin, executive position, family ties. We build five indicators of diversity according to each diversity dimension and a global indicator as the sum of the individual indexes. We find that "diversity" by itself exerts a positive impact on profitability. The result may support the idea that a heterogeneous board would benefit from a broader information set made available by the multiple networks they belong to. These connections would enhance the decision-making process, with positive effects on profitability. When we consider board diversity as defined by any specific characteristics, we find that they differently impact on performance: in particular, gender and executive powers have the greatest effect. A fair representation of men and women and an appropriate mix of executives and non-executives directors in the board generate a positive effect on profitability. The result suggests that increasing the participation of women in senior roles within organizations would produce not only a social but also an economic development. Analogously, it is equally important to compose boards with a good balance of executives and non-executives directors: the former contribute to improving management, the latter act as supervisors in the decision process (Fama and Jensen, 1983). With respect to the "family ties" dimension, the result would seem to emphasize the need for "diversity" among corporate control and management: the presence of a President directly involved in the management has a negative impact on firm performance.

Table 4. Diversity indexes and profitability (ROA). Fixed effects model

Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Total D.I.	0.019*** (0.001)						
Gender D.I.		0.052*** (0.000)					0.044*** (0.002)
Age D.I.			0.013 (0.180)				0.005 (0.540)
Region D.I.				0.004 (0.460)			0.001 (0.700)
Executive director D.I.					0.022** (0.033)		0.025*** (0.001)
Family D.I.						0.016 (0.200)	0.003 (0.490)
Family President	0.012 (0.540)	0.010 (0.440)	0.016 (0.300)	0.013 (0.360)	0.012 (0.310)	0.012 (0.410)	0.018 (0.360)
CEO duality	-0.020** (0.040)	-0.025*** (0.029)	-0.027** (0.024)	-0.025** (0.033)	-0.025** (0.032)	-0.027** (0.024)	-0.027** (0.032)
Size	0.010*** (0.006)	0.011** (0.020)	0.011*** (0.004)	0.012*** (0.004)	0.011*** (0.004)	0.010*** (0.003)	0.011*** (0.004)
Size ²	-0.0004** (0.034)	-0.0004** (0.027)	-0.0004** (0.023)	-0.0004** (0.022)	-0.0004** (0.024)	-0.0004** (0.022)	-0.0004** (0.027)
F. ownership	0.011 (0.540)	-0.009 (0.620)	-0.007 (0.560)	-0.007 (0.540)	-0.006 (0.590)	-0.007 (0.610)	-0.006 (0.590)
Leverage	-0.059*** (0.001)	-0.066*** (0.001)	-0.075*** (0.001)	-0.074*** (0.002)	0.070*** (0.001)	-0.073*** (0.001)	-0.070*** (0.001)
ln(employees)	-0.004 (0.190)	-0.003 (0.340)	-0.004 (0.160)	-0.004 (0.160)	-0.004 (0.120)	-0.004 (0.200)	-0.004 (0.12)
Constant	0.020 (0.250)	0.066** (0.023)	0.087*** (0.004)	0.90*** (0.002)	-0.082*** (0.006)	0.086*** (0.006)	0.019 (0.119)
<i>Time dummies</i>	<i>yes</i>						
<i>Adj-R²</i>	<i>0.105</i>	<i>0.110</i>	<i>0.095</i>	<i>0.094</i>	<i>0.090</i>	<i>0.092</i>	<i>0.093</i>
<i>Obs</i>	<i>1264</i>						

*** Significant at 1%; ** Significant at 5%; * Significant at 10%. P-values in parenthesis.

Dependent variable: ROA, fixed effect model. "Gender D.I.", "Age D.I.", "Region D.I.", "Executive director D.I.", "Family D.I." are specific diversity indexes; "Total D.I." is a sum of all diversity indexes. "Family President" is a dummy variable with value 1 when the President of the board is a family member, value 0 otherwise; "CEO duality" is a dummy variable equal to 1 when the President is also executive, and 0 if he is not an executive; "Size" is the number of board directors; "F. ownership" is the percentage of family ownership; "Leverage" is the total assets/equity ratio; "ln(employees)" is the natural logarithm of the number of employees.

Table 5. Diversity indexes and profitability (ROA). Random effects model.

Independent variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Total D.I.	0.018*** (0.001)						
Gender D.I.		0.035*** (0.000)					0.029*** (0.000)
Age D.I.			0.015* (0.075)				0.012 (0.141)
Region D.I.				0.013 (0.214)			0.006 (0.571)
Executive director D.I.					0.023*** (0.005)		0.022*** (0.008)
Family D.I.						0.021** (0.020)	0.009 (0.272)
Family President	0.005 (0.580)	0.005 (0.584)	0.006 (0.560)	0.004 (0.649)	0.004 (0.641)	0.005 (0.617)	0.005 (0.567)
CEO duality	-0.011 (0.109)	-0.009 (0.175)	-0.009 (0.165)	-0.009 (0.189)	-0.008 (0.190)	-0.011 (0.133)	-0.007 (0.0290)
Size	0.005** (0.015)	0.007** (0.016)	0.006** (0.028)	0.006** (0.025)	0.007** (0.022)	0.006** (0.038)	0.005** (0.032)
Size ²	-0.0002* (0.078)	-0.0003* (0.095)	-0.0002 (0.120)	-0.0003* (0.089)	-0.0003 (0.115)	-0.0003* (0.090)	-0.0003* (0.095)
F. ownership	0.011 (0.282)	0.005 (0.423)	0.007 (0.478)	0.009 (0.401)	0.009 (0.580)	0.009 (0.400)	0.005 (0.612)
Leverage	-0.049*** (0.001)	-0.048*** (0.001)	-0.051*** (0.001)	-0.053*** (0.001)	-0.049*** (0.001)	-0.051*** (0.001)	-0.043*** (0.004)
ln(employees)	-0.004* (0.048)	-0.004* (0.057)	-0.004** (0.033)	-0.004** (0.036)	-0.004** (0.029)	-0.004* (0.072)	-0.005* (0.056)
Constant	0.036* (0.082)	0.071*** (0.000)	0.078*** (0.004)	0.083*** (0.000)	0.070*** (0.000)	0.069*** (0.001)	0.021 (0.203)
<i>Time dummies</i>	<i>Yes</i>						
<i>Adj-R²</i>	<i>0.110</i>	<i>0.092</i>	<i>0.095</i>	<i>0.100</i>	<i>0.089</i>	<i>0.085</i>	<i>0.090</i>
<i>Obs</i>	<i>1264</i>						

*** Significant at 1%; ** Significant at 5%; * Significant at 10%. P-values in parenthesis.

Dependent variable: ROA, random effect model. “Gender D.I.”, “Age D.I.”, “Region D.I.”, “Executive director D.I.”, “Family D.I.” are specific diversity indexes; “Total D.I.” is a sum of all diversity indexes. “Family President” is a dummy variable with value 1 when the President of the board is a family member, value 0 otherwise; “CEO duality” is a dummy variable equal to 1 when the President is also executive, and 0 if he is not an executive; “Size” is the number of board directors; “F. ownership ” is the percentage of family ownership; “Leverage” is the total assets/equity ratio; “ln(employees) ” is the natural logarithm of the number of employees.

References

- Adams, R.B., Ferreira, D., 2009, Women in the boardroom and Their Impact on Governance and Performance. *Journal of Financial Economics* 94(2), 291–309
- Amabile, T.M., 1996. *Creativity in context*, Westview Press, Boulder, CO
- Amit, R., Schoemaker, P., 1993. Strategic assets and organizational rent. *Strategic Management Journal* 14, 33-46
- Anderson, R.C, Reeb, D.M., 2003. Founding family ownership and firm performance: evidence from the S&P 500. *Journal of Finance* 58(3), 1308-1328
- Anderson, R.C., Duru, A., Reeb, D.M., 2009. Founders, heirs, and corporate opacity in the United States. *Journal of Financial Economics* 92(2), 205-222
- Auden, W.C., Shackman, J.D., Onken, M.H., 2006. Top management team, international risk management factor and firm performance. *Team Performance Management* 12(7/8), 209-224
- Barney, J.B., 1986. Strategic factor markets: expectations, luck and business strategy. *Management Science* 32, 1231-1241
- Barth, E., Gulbrandsen, T., Schønea, P., 2005. Family Ownership and Productivity: The Role of Owner-Management. *Journal of Corporate Finance* 11(1-2): 107-127
- Beaver, G., Hutchings, K., 2005. Training and developing an age diverse workforce in SMEs: The need for strategic approach, *Education and Training* 47, 592-604
- Bennedsen, M.K., Nielsen, M.K., Pérez-González, F., Wolfenzon, D., 2007. Inside the family firm: the role of families in succession decisions and performance. *Quarterly Journal of Economics*, 109(4), 1125-1156
- Bianco, M., Ciavarella, A., Signoretti, R., 2011. Women on boards in Italy. *Quanderno di Finanza* n. 70, Consob
- Blackwell, J., Northcraft, N., 1999. Why differences make a difference: a field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly* 44(4), 741-763
- Bloom, N., Van Reenen, J., 2007. Measuring and Explaining Management Practices Across Firms and Countries. *Quarterly Journal of Economics* 122(4), 1351-140
- Boone, C., Hendriks, W., 2007. Top Management Team Diversity and Firm Performance: Moderators of Functional-Background and Locus-of control Diversity. *Management Science* 55(2), 165-180
- Campbell, K., Minguez-Vera, A., 2008. Gender Diversity in the Boardroom and Firm Financial Performance. *Journal of Business Ethics* 83, 435-451
- Carpenter, M.A., Westphal, J.D., 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* 4(4), 639-660
- Carson, C.M., Mosley, D.C., 2004. Boyar, S.L., Performance gains through top management teams. *Team Performance Management* 10(5/6), 121-126
- Carter, D.A. Simkins, B.J. Simpson, W.G., 2003. Corporate Governance, Board Diversity and Firm Value. *The Financial Review* 88, 33-53
- Carter, D.A., D'Souza, F.P., Simkins, B.J., Simpson, W.G., 2008. The diversity of corporate board committees and financial performance. *Working Papers Series*
- Cox, G.M., 2001. Creating the multicultural organization: A strategy capturing the power of

diversity. Jossey-Bass

Cox, T.Jr., Lobel, S.A., McLeod, P.L., 1991. Effects of ethnic group cultural differences on cooperative and competitive behaviour on a group task. *Academy of Management Journal* 34, 827-847

Dezso, C., Ross, D. G., 2008. 'Girl Power': Female Participation in Top Management and Firm Performance, University of Maryland, RH Smith School of Business

Dobbin, F., Jung, J., 2011. Corporate board gender diversity and stock performance: the competence gap or institutional investor bias? *North Carolina Law Review* 89(3), 809-838

Eklund, J., Palmberg, J., Wiberg, D., 2009. Ownership Structure, board Composition and Investment Performance. Working Paper Series in Economics and Institutions of Innovation 172

Erhardt, N.L., Werbel, J.D., Shrader, C.B., 2003. Board of Director and Firm Financial Performance. *Corporate Governance* 11(2), 102-111

Fama, E.F., Jensen, M.C., 1983. Separation of Ownership and Control. *Journal of Law and Economics* 26(2), 301-325

Ferreira D., 2010. Board Diversity, in: Baker H.K., Anderson R., *Corporate Governance: A Synthesis of Theory, Research, and Practice*. J. Wiley&Sons.

Francoeur C., Réal L., Sinclair-Desgagne' B., 2008. Gender Diversity in Corporate Governance and Top Management. *Journal of Business Ethics* 81(1), 83-95

Gao, T., 2003. Ethnic Chinese networks and international investment: Evidence from inward FDI in China, *Journal of Asian Economics* 14(4), 611-629

Gersick, K.E., Davis, J.A., Hampton, M.M., Lansberg, I., 1997. *Generation to Generation: Life Cycles of the Family Business*. Harvard Business School Press, Cambridge, MA

Gomez-Mejia, L.R., Nuñez-Nickel, M., Gutierrez, I., 2001. The role of family ties in agency contracts. *The Academy of Management Journal* 44(1), 81-95

Hambrick, D.C., Mason, P.A., 1984. Upper echelon s: The organization a reflection of i t s top managers", *Academy of Management Review* 9, 193-206

Harrison, D. A., Klein, K.Y., 2007. What 's the difference? Diversity constructs as separation, variety, or disparity organizations. *Academy of Management Review* 32, 1199-1228

Hatfield, S., 2002. Understanding the four generations to enhance workplace management. *AFP Exchange* 22, 72-74

Irving L. J., 1972. *Victims of Groupthink: A psychological study of foreign-policy decisions and fiascoes*. Houghton Mifflin Company

Jackson, S. E., 1992. Consequences of group composition for the interpersonal dynamics of strategic issue processing. *Advances in strategic management*, Greenwich, JAI Press, 345-382

Jean, R.JB., Tan, D., Sinkovics, R. R., 2011. Ethnic ties, location choice, and firm performance in foreign direct investment: A study of Taiwanese business groups FDI in China. *International Business Review* 20, 627-635

Jehn, K.A., Northcraft, G.B., Neale, M.A., 1999. Why differences make a difference: a field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly* 44(4), 741-763

Jensen, M.C., 1998. *Foundations of Organizational Strategy*. Harvard University Press, Cambridge, MA

Jensen, M.C., Meckling, W.H., 1976. Theory of the firm: Managerial behaviour, agency costs, and

- ownership structure. *Journal of Financial Economics* 3, 305-360
- Jurkus, A.F., Park J., Woodard, L.S., 2008. Gender Diversity, Firm Performance, and Environment, Working Paper Series, 2008
- Lauterbach, B., Vaninsky, A., 1999. Ownership structure and firm performance: evidence from Israel. *Journal of Management and Governance* 3, 189-201
- Li, J., Chu, C.W.L., Lam, K., Liao, S., 2011. Age diversity and firm performance in an emerging economy, implications for cross-cultural human resource management, *Human Resource Management* 50(2), 247-270
- Lubatkin, M.H., Schulze, B., Ling, Y., Dino, R., 2005. The effects of parental altruism on the governance of family-managed firms. *Journal of Organizational Behavior* 26, 313-330
- Marimuthu, M., 2008. Ethnic Diversity an board of Directors and Its implications on Firm Financial Performance. *The Journal of International Social Research* 1/4, 431-445
- Meckling, W.D., Jensen, M.C., 1976. Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics* 3(4), 305-360
- Molly, V., Laveren, E., Deloof, M., 2010. Family business succession and its impact on financial structure and performance. *Family Business Review* 23(2), 131-147
- Montaigne, M., 1580, *Essays*, II, 37, 786
- Morck, R., 2004. Family Control and the Rent-Seeking Society. *Entrepreneurship Theory and Practice* 28(4), 391-409
- Ouchi, W.G., 1980. Markets, bureaucracies and clans. *Administrative Science Quarterly* 25, 129-141
- Pérez-Gonzalez, F., 2006. Inherited control and firm performance. *American Economic Review* 96(5), 1559-1588
- Peteraf, M., 1993. The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal* 14, 179-191
- Peterson, S.J., Spiker, B.K., 2005. Establishing the positive contributory value of order work workers: A positive psychology perspective. *Organizational Dynamics* 34, 153-167
- Pfeffer, J., Salancik, G.R., 1978. *The external control of organizations: A resource dependence perspective*, New York: Harper & Row
- Pitcher, P., Smith, A.D., 2001. Top Management Team Heterogeneity: Personality, Power, and Proxies *Organization Science*. 12(1), 1-18
- Rotter, J.B., 1954. *Social learning and clinical psychology*, N.Y., Printice-Hall
- Schneider, B., 1987. The People make the place. *Personnel Psychology* 40(3), 437-457
- Schulze, W.S, Lubatkin, M.H., Dino, R.N. & Buchholtz, A., 2001. Agency relationships in family firms: theory and evidence. *Organization Science* 12(2), 99-116
- Schulze, W.S., Lubatkin, M.H., Dino R.N., 2003a. Exploring the agency consequences of ownership dispersion among the directors of private family firms. *Academy of Management Journal* 46(2), 179- 194
- Schulze, W.S., Lubatkin, M.H., Dino R.N., 2003b. Toward a theory of agency and altruism in family firms. *Journal of Business Venturing*, 18(4), 473-490
- Schwizer, P., Soana, M.G., Cucinelli, D., 2012. The advantages of Board Diversity. En empirical analysis on the Italian market, *Bancaria* 3, 24-36

- Shleifer, A., Vishny, R.W., 1997. A Survey of Corporate Governance. *Journal of Finance* 52(2), 737-783
- Shleifer, A., Vishny, R.W., 1997. A Survey of Corporate Governance. *Journal of Finance* 52(2), 737-783
- Simons, T., Pelled, L.H., Smith, K.A., 1999. Making use of difference: diversity, debate and decision comprehensiveness in top management teams. *The Academy of Management Journal* 42(6), 662-673
- Slocum, J.W., and Hellriegel, D., 2007. *Fundamentals of Organizational Behavior*, Paperback
- Smith, K.A., Olian, J.D., Sims, H.P., O' Bannon, D.P., Scully, J.A., 1994. Management Team Demography and Process: The Role of Social Integration and Communication", *Administrative Science Quarterly* 39(3), 412-438
- Sraer, D., Thesmar, D., 2007. Performance and behaviour of family firms: Evidence from the French stock market. *Journal of the European Economic Association* 5(4), 709-751
- Stewart- Williams, S., 2007. Altruism among kin vs. non kin: effect of cost of help and reciprocal exchange, *Evolution and human behavior* 28, 193-198
- Teece, D.J., Pisano, G., Shuen, A., 1997. Dynamic capabilities and strategic management, *Strategic Management Journal*, 18, 509–534
- Van Yoder, S., Goldberg, B., 2002. Coping with the graying workforce. *Financial Executive* 18 (1), 26-29
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., Wetherell, M. S., 1987. *Rediscovering the Social Group: A self-categorization Theory*. New York: Blackwell.
- Villalonga, B., and Amit, R. H., 2006. How Do Family Ownership, Control and Management Affect Firm Value?, *Journal of Financial Economics* 80(2), 385-417
- Williams, K., O'Reilly, C., 1998. Demography and diversity in organizations: A review of 40 years of research. *Research in Organizational Behavior* 20, 77-140
- Zaheer, S., Lamin, A., Subramani, M., 2009. Cluster capabilities or ethnic ties location choice by foreign and domestic entrants in the services offshoring industry in India, *Journal of International Business Studies* 40(6), 944–968