Does the composition of the board matter? On the relationship between corporate governance and value creation

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DOES THE COMPOSITION OF THE BOARD MATTER? ON THE RELATIONSHIP BETWEEN CORPORATE GOVERNANCE AND VALUE CREATION

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Research Question / Issue: This paper studies the effect of corporate governance on value creation for listed companies. It also examines whether the fact that a business is owned or partly owned by a family has an impact on this variable as well as the behavior of companies at different stages of the economic cycle.

Research Findings / Insights: Our research makes use of a dataset consisting of the companies in the IBEX-35 for the period 2005/12. It carries out a sub-analysis for the periods 2005-2008 and 2009-2012, to evaluate the effect of the crisis. The results indicate that neither the presence of women on boards of directors nor family ownership affect value creation in the companies analyzed. The size of the entity revealed a statistically significant and negative coefficient for the entire period under analysis. However, recorded profitability revealed a statistically significant and positive coefficient only for the pre-crisis period and not for the later period. In contrast, board size and the percentage of independent board members are both relevant and reveal a positive coefficient for the crisis period.

Theoretical / Academic Implications: Although its starting point is agency theory, complemented by resource dependence theory, the paper resorts to the sociological theory of the strength of weak ties, to explain its results. Gender diversity and family ownership do not seem to have an impact on value creation, while the level of independence of the governance bodies has a positive effect throughout the crisis period. This result supports the notion that board structure is much more relevant in difficult and challenging times. In addition to increasing the number of independent directors, it is also crucial that a minimum percentage be reached in order to influence the board and generate value.

Practitioner / Policy Implications: According to the empirical evidence, in times of crisis, it seems advisable and more efficient to increase board size with more independent directors, regardless of gender. Gender equality does not harm value creation.

Keywords: Corporate governance, Value Creation, Executive Committee, Board composition, Director independence

JEL CODES: G32, G34, H11

INTRODUCTION

The literature on the relationship between corporate governance and value creation has expanded in recent years[i]. Most of this research is based on three classic theoretical paradigms analyzed by Nicholson and Kiel (2007): agency theory, stewardship theory, and resource dependence theory. Furthermore, research on corporate governance has also been enriched by new perspectives. In particular, Huse, Hoskisson, Zattoni and Vigano (2011) point out three additional approaches: (1) Dismantle fortresses: based on a team production approach, it builds up agency theory to refocus on multi-theoretical approaches integrating micro and macro theories (Daily, Dalton and Cannella, 2003); (2) Context, behavior and evolution: this approach also takes agency theory as its main theory, refocusing it on behavioral theories (Gabrielsson and Huse, 2004); (3) Behavioral perspectives: perspectives based on economic and legal approaches redirected to theories about power, social and organization psychology (Hambrick, van Werder and Zajac, 2008).

In this paper, we adopt an interdisciplinary approach and draw from three important theories taken from economics and sociology: agency theory (Jensen and Meckling, 1976), resource dependence theory (Pfeffer and Salancik, 1978), and the theory of The strength of the weak ties (Granovetter, 1973).

Agency theory is based on the premise that there is an inherent conflict between the interests of a firm's owners and its management (Fama and Jensen, 1983). As to the mechanism by which a board is expected to influence corporate performance, agency theory suggests that a greater proportion of outside/independent directors will be able to monitor any self-interested actions by managers. Such monitoring will provide less opportunity for managers to pursue self-interest at the expense of owners (lower agency costs), so shareholders will enjoy greater returns (or increased profits).

Whereas agency theory is appropriate for conceptualizing the control/monitoring role of directors, additional theoretical perspectives are needed to explain directors' resource, service, and strategic roles (Daily, Dalton and Canella, 2003). Resource dependence theory provides a theoretical foundation for directors' resource role. Proponents of this theory (Pfeffer and Salancik, 1978) suggest four primary benefits for the external linkages: (1) provision of resources such as information and expertise; (2) creation of channels of communication with constituents of importance to the firm; (3) provision of commitments for support from important external organizations or groups; and (4) creation of legitimacy for the firm in the external environment (cited in Carter, D'Souza, Simkins and Simpson, 2010: 398).

Finally, Gabrielssson and Huse (2004) assume that the behavior and conduct of directors can be successfully inferred from the board's demographic characteristics. Following these authors, we turn to the sociological theory of the strengh of the weak ties. Granovetter believes that to establish links that can really have an influence on the group (in our case, on the Board of Directors), there must be a minimum of actors. A minimum number and percentage of independent members is required to influence value creation; such independent directors must have ties that allow them to exercise an influence on the board, and must be united by the common goal of making the most effective decisions. This theory allows us to understand the relevance of the personal characteristics of the independent directors and their influence on the group dynamics of the board; minority group members may encourage divergent thinking in the decision-making process.

The evolution of the literature that examines the relationship between corporate governance and value creation has been influenced by the drafting of codes of good governance throughout the world (Zattoni and Cuomo, 2008). All of them recommend greater independence and gender diversity on boards.

The relationship between gender diversity and corporate governance has also been widely studied. In Europe, in addition to codes of good governance, there have been several legislative proposals aiming to increase the number of women on boards. The literature shows different results in the relationship between value creation and diversity in several countries.

The effect of family ownership on value creation has also been extensively discussed in the literature, with varying results. Although most studies conclude that family ownership positively affects the generation of value, in others there is negative or no significant relation.

The so-called "great recession" that started in 2007 offers a good opportunity to test the influence of corporate governance on value creation in different scenarios. Our main hypothesis is that the effects of the composition and structure of governance structures, captured by the number of independent directors, board size, the representation of women, and family ownership of the company are amplified in times of crisis. The idea is very simple: the board of directors is much less relevant when market conditions are favorable. When they are not, the board is crucial to explain differences in value creation.

For this purpose, we carry out an econometric study using time-series cross-section data for listed companies in the IBEX-35 over the period 2005-2012. The results confirm the idea that board structure is much more relevant in difficult and challenging times. In addition to increasing the number of independent directors, it is also crucial that a minimum percentage be reached in order to influence the board and generate value. Conversely, gender effects and family ownership do not matter.

The rest of the paper is organized as follows. The next section reviews the literature to determine the relationship between the different variables and the process of value creation and establishes several hypotheses. The third section describes the data and construction of the variables. The fourth section presents empirical results and interpretations. Finally, we draw conclusions and discuss implications.

LITERATURE REVIEW AND HYPOTHESES

Corporate governance and value creation

A significant number of studies have tried to determine the impact of different decisions on corporate governance in companies from different markets. These papers analyze to what extent compliance with good governance recommendations affects business results and, therefore, the creation of value. They find that: implementation of the Sarbanes-Oxley Act in the U.S. has a positive impact on the value of the companies; introduction of the Peters Committee recommendations caused no significant changes in the value of companies in the Netherlands; the degree of compliance with the German code of good governance is relevant information valued by the market; there is no significant relationship between total compliance with the recommendations of the Cadbury Committee and the performance of a sample of British organizations. Clearly, a wide range of results are observed.

The first code was issued in 1978 in the United States, followed by Hong Kong, Ireland, the United Kingdom, and Canada. Today, more than sixty countries have drafted codes of good governance. Companies, as well as countries, seek to make their corporate governance practices more effective, in part as a consequence of corporate governance scandals, but also to attract investors (Aguilera and Cuervo-Cazurra, 2009).

The literature on codes of good governance has expanded a great deal since the Cadbury Report in the UK in 1992, and particularly since the early 2000s. Worldwide, codes provide a set of recommendations that listed companies should take into account when issuing their Annual Reports on Corporate Governance. Codes have some key universal principles for effective corporate governance that are common to most countries to achieve a balance between executive and non-executive directors, and a clear division of responsibilities between the chairman and the chief executive officer.

The composition of the board therefore seems to be an important variable when considering whether the level of board independence, measured in terms of the percentage of external members, can create or destroy value in a company. Mínguez and Martin (2003: 18) cite empirical studies that obtained varying results[ii] (no cases with a significant relationship, some with a positive effect, and others with a negative relationship).

We therefore pose the following hypothesis:

Hypothesis 1: Independence on the board enhances value creation

Gender diversity and value creation

Female representation in corporate decision-making is an important issue for policymakers all over the world (Terjesen, Sealy and Singh, 2009).

Spain has published a Unified Good Governance Code of Listed Companies (CNMV, 2006). Recommendation 15 states that "achieving adequate gender diversity on boards is not only a challenge in terms of ethics, politics and corporate social responsibility but is also an efficiency target that listed companies should at least consider in the medium term." It also raises the need for the percentage of women on the boards of Spanish

listed companies to reach 40% by 2015 (De Anca, 2008). This Code outlines a supposedly economic definition stating that "wasting the potential entrepreneurial talent of women who represent 51% of the population does not make economic sense within the global context of large enterprises in our country".

Previous research has analyzed the relationship between diversity of corporate governance and value from multiple perspectives. Some authors consider that diversity allows for a better understanding of the market, increases creativity and innovation, and makes problem-solving more effective (Carter, Simkins and Simpson, 2003; Esteban, 2007). Bilimoria (2000) supports the argument that the presence of women not only improves the reputation of the company, but also improves its strategic management by bringing a more global view to the company.

Other studies rely on agency theory to establish a link between board diversity and firm value. Fama and Jensen (1983) proposed that the board plays an important role as a mechanism to control and monitor managers. However, the results of published studies analyzing the relationship between gender diversity and value generation are not consistent. Carter *et al* (2003) concluded that this relationship is significant and positive for Fortune 1000 companies. Others researchers reached similar conclusions[iii], confirming that there is a positive relationship between gender diversity on boards and greater financial performance (measured by Tobin's Q). Other authors,[iv] however, point to a negative relationship. In summary, the economic case for board diversity and corporate governance can be related to the following proposition:

Hypothesis 2: Gender diversity enhances value creation

Family business and value creation

According to Santana and Cabrera (2001), the boards of non-family-owned firms are significantly bigger than those of family-owned businesses and have the lowest proportion of board members involved in company management. Their empirical work expresses the idea that family firms seem to be at an advantage because of their lower proportion of agency conflicts. They also find a negative relationship between family ownership and the creation of value. Conelly, Limpaphayom and Nagarajan (2012) find a negative relationship between the existence of major family control and value creation. This may be because a greater presence of family members on the board implies a lower level of independence and this, in turn, is associated with a lower generation of value.

Pukthuanthong, Walker and Nuttanontra (2013) find that family ownership helps to resolve agency conflicts between owners and management and enhances firm value. Using Tobin's Q as a variable representing the greater presence of family members in managerial positions, these authors conclude that family-owned companies generate more value than non-family-owned companies. They also consider the effect of age to be a statistically significant and negative coefficient with respect to the generation of value.

The results obtained by Cruz and Núñez (2011) show that European listed family-owned businesses generated greater shareholder value over the period 2001-2010. Analysis of the possible effect of factors that could be affecting value creation (size, level of debt, risk and sectorial distribution) suggests the existence of a family effect

that positively influences the creation of long-term shareholder value. We therefore propose the following hypothesis:

Hypothesis 3. Family business enhances value creation

METHODOLOGY, DATA AND VARIABLES

Sample and variables

Our sample includes companies listed on the IBEX-35 for 2005-2012[v]. This choice is explained by the fact that companies necessarily have to be listed because of the value creation measures used in this work. In addition, according to Fernández, Aguirreamalloa and Corres (2011: 1), "trading volume of Ibex- 35 companies accounted for over 95% of trading on the continuous stock market" for the period 1991-2010.

Dependent variable: Value Creation

The dependent variable is Tobin's Q ratio. This measure of value creation has been widely used in the recent literature (see Table 1). Alternatively, several studies, such as De los Ríos *et al* (2009), use Economic Value Added (hereinafter EVA™ [1]) as a measure of value creation. However, a number of relevant caveats and potential problems have been claimed, related to the fact that this measure is static and based on accounting (Fernández, 2003). Hence we do not consider EVA and, instead, use as a measure of value creation an approximation of Tobin's Q, defined as the sum of the market value of stock and the book value of debt divided by the book value of total assets.

TABLE 1
Literature review for constructing q as a proxy for firm value

	Lang and Stulz (1994)	**Demsetz and Villalonga (2001)**	**Mínguez and Martín (2003)**	**Campbell and Mínguez-Vera (2010)**	**Lefort and Urzúa (2008)**
q: Tobin´s Q	Market value of common stock and the book value of debt and preferred stock. / Book value of assets	Market value of the firm / estimated replacement cost of the firm's tangible assets	Financial Q = Market value of common stock and the book value of debt /book value of assets	Aproximation of Tobin`s Q= Market value of stock and the book value of debt /book value of assets	Market value of assets /book value of assets.

Explanatory variables. Board structure is captured by four variables, which we call family, committee, independence and board. In preliminary estimates, some other variables were also included: the number and percentage of women on the board, CEO gender, and whether the chairman and CEO positions are held by the same person

The number and percentage of women on the board were ruled out because of multicollinearity. CEO gender was also ruled out because it always takes zero. Consequently, we measured gender diversity as the committee variable, which takes the actual number of women on the board. We measured whether the chairman and CEO positions are held by the same person as a dummy variable taking a value of 1 when there is a single person in both positions, and zero otherwise. This variable was ruled out because, for this sample, it always takes zero.

We also included the following three control variables: age, size, and ROA. The definitions of the variables are given in Table 2. In preliminary estimates, the ratio of total debt to total assets was also included but this gave rise to multicollinearity so it was dropped in the final estimate. A set of dummy variables was also included to control for the firm's sector of activity, but a formal test clearly showed that they were redundant.

TABLE 2
Definition of explanatory variables

Variable	Definition	Predicted sign	Source
Age	Age of the firm	-	SABI
Size	Natural logarithm of total assets	-	SABI
ROA	Return on assets	+	SABI
Family	Dummy variable that takes a value of 1 if the firm is a family business and zero otherwise	+/-	SABI
Committee	Number of women members on different committees	+/-	CNMV
Independent	Percentage of independent board members	+	CNMV
Board	Number of board members	+	CNMV

The results of the papers that include these variables are described in table 2.

Regarding the *age* variable, Campbell and Mínguez-Vera (2010) found this variable not significant. However, Mínguez Vera and López-Martínez (2010) and Pukthuantong, Walder and Nuttanontra (2013) found a negative and significant correlation with Tobin's Q. Perhaps the explanation is that younger firms have future growth opportunities and a simpler organization. For this reason, we expect a negative relation with value creation.
The results obtained by Carter *et al* (2010) for the *size* variable are not significant. However, most of the previous studies (Campbell and Mínguez-Vera, 2010; Mínguez Vera and López-Martínez, 2010, and Vivel *et al*, 2013) obtained a negative and significant correlation with Tobin´s Q. We expect the same relationship because, like these authors, we considerthat smaller firms have a higher firm value.

Relative to the *ROA* variable, we expect the firms that have a greater ROA also have a higher firm value, as shown in the results obtained by Campbell and Mínguez-Vera (2010) and Vivel *et al* (2013).

Table 3 shows that the relationship between family business and value creation takes different signs in the literature reviewed. However, most studies conclude that family ownership positively affects value creation. We believe that when a listed family-owned company qoted is very professionalized, it has less agency costs, and can generate more value.

The *committee* variable is used as a proxy of gender diversity and measures the actual number of women on different committees. We expect a positive relation with value creation, because most of the studies on gender found this association.

Lefort and Urzúa (2008) found that an increase in the proportion of outside directors positively affects value creation. However, Carter *et al*., (2010) found that the *independent* variable is not significant. We believe that independent directors can provide more resources to the firm and improve networking, positively affecting value creation.

The literature review on board size obtained different results. Lefort and Urzúa (2008) found the *board* variable not significant. Yermack (1996) found an inverse relation between this variable and Tobin`s Q, and explained his result with agency theory. Conversely, Nicholson and Kiel (2007) and Jackling and Johl (2009) found a positive and significant relation. These authors base their results on the resource dependency theory, which argues that a greater number of directors provides more information for appropriate decision-making. In line with the latter study, we expect a positive association between the *board* variable and Tobin's Q.

TABLE 3. The effects of explanatory variables in previous studies

Variables used	Authors	Results	Countries	Years
Age	Campbell and Mínguez-Vera (2010)	No significant	Spain	1989-2001
	Mínguez-Vera and López-Martínez (2010)	Significant and negative	Spain	2008
	Pukthuanthong, Walder and Nuttanontra (2013)	Significant and negative	Canadá	1999-2007
Size	Carter *et al.,* (2010)	No significant	United States	1998-2002
	Campbell and Mínguez-Vera (2010)	Significant and negative	Spain	1989-2001
	Mínguez-Vera and López-Martínez (2010)	Significant and negative	Spain	2008
	Vivel *et al.,* (2013)	Significant and negative	Spain	2004-2007
ROA	Campbell and Mínguez-Vera (2010)	Significant and positive	Spain	1989-2001
	Vivel *et al.,* (2013)	Significant and positive	Spain	2004-2007
Family	Villalonga and Amit (2006)	Significant and positive	United States	1994-2000
	Barontini and Caprio (2006)	No significant	11 european countries	1999-2001
	Shyu (2011)	Significant and positive	Taiwan	2002-2006
	Cruz and Núñez (2011)	Significant and positive	26 european countries	2001-2010
	Connelly, Limphayom and Nagarajan (2012)	Significant and negative	Thailand	2005
	Pukthuanthong, Walder and Nuttanontra (2013)	Significant and positive	Canadá	1999-2007
Committee	Carter *et al.,* (2003)	Significant and positive	United States	1997
	Erhardt, Webel and Shrader (2003)	Significant and positive	United States	1993 and 1998
	Campbell and Mínguez-Vera (2010)	Significant and positive	Spain	1989-2001
	Carter *et al.,* (2010)	Significant and positive	United States	1998-2002
	Kochan *et al.,* (2003)	Significant and negative	United States	1997
	Bohren and Strom (2010)	Significant and negative	Norway	1989-2002
	Rose (2007)	No significant	Denmark	1998-2001
Independent	Lefort and Urzúa (2008)	Significant and positive	Chile	2000-2003
	Carter *et al.,* (2010)	No significant	United States	1998-2002
Board	Lefort and Urzúa (2008)	No significant	Chile	2000-2003
	Yermack (1996)	Significant and negative	United States	1984-1991
	Nicholson and Kiel (2007)	Significant and positive	Australia	2003-2005
	Jackling and Johl (2009)	Significant and positive	India	2005-2006

ECONOMETRIC ANALYSIS

Data, specification and econometric methodology

The main descriptive statistics for all the variables are reported in Table 4. The corresponding Variance Inflation Factors (VIF) were also computed in order to detect potential multicollinearity problems. They are shown in the last column. All variables meet the various recommendations for acceptable levels of VIF published in the literature (10, 5, or even 4).

TABLE 4

Descriptive statistics and VIF

Variable	Mean	Standard Deviation	Minimum	Maximum	VIF
q	1.82	0.97	0.19	5.96	
q_{-1}	1.90	0.99	0.19	5.96	2.15/2.51
Age	2.52	1.06	1	4	1.49/1.52
Size	15.85	1.45	13.59	19.93	2.10/3.83
ROA	6.33	8.34	-20.70	42.09	1.82/1.76
Family	0.40	0.9	0	1	1.33/1.22
Committee	0.97	1.18	0	5	1.22/1.54
Independent	0.40	0.19	0.06	0.89	2.00/3.62
Board	14.24	3.25	7	21	1.62/2.15

Notes: 160 observations for each variable. VIF values are reported for the whole period 2005-2012 and for 2008-2012, respectively.

Time-fixed effects are included in order to control for common shocks affecting firms, and OLS standard errors are replaced by robust SUR period errors. A formal test on redundant time-fixed effects confirmed their relevance[vi]. Moreover, addition of the lagged endogenous effect as a right-hand variable is required in order to deal with dynamic econometric problems. Once both the lagged endogenous and time-fixed effects are included, the Breusch-Godfrey test for first order autocorrelation clearly rules out problems in this connection, and then validates OLS estimates.

In sum, the econometric specification finally estimated is the following:

$$q_{it} = \beta_0 + \rho \cdot q_{it-1} + \beta_1 \cdot Age_{it} + \beta_2 \cdot Size_{it} + \beta_3 \cdot ROA_{it} + \\ + \beta_4 \cdot Family_{it} + \beta_5 \cdot Committee_{it} + \beta_6 \cdot Independent_{it} + \beta_7 \cdot Board_{it} + \varepsilon_{it} \quad [1]$$

Results

The econometric results are summarised in Table 5. In column 1 the sample includes all available observations (160). In columns 2 and 3, the sample is split into two. While the first four-year period (2004-2008) coincides with the last phase of the recent economic boom in Spain, the second period (2009-2012) represents the depression years. This dramatic change in the economic scenario gives us the chance to check the determinants of firm performance under extreme and opposite conditions.

TABLE 5

Econometric estimates of equation [1]

Period	2005-2012	2005-2008	2009-2012
Intercept	2.20*** (4.35)	2.44*** (2.76)	2.73*** (4.56)
q_{-1}	0.64*** (10.88)	0.64*** (6.83)	0.52*** (6.79)
Age	0.045 (1.25)	0.089 (1.28)	0.0085 (0.25)
Size	-0.13*** (3.67)	-0.13** (2.31)	-0.18*** (4.16)
ROA	0.014** (2.48)	0.022** (2.02)	0.006 (1.32)
Family	-0.026 (0.40)	-0.089 (0.58)	-0.073 (1.13)
Committee	-0.0084 (0.28)	0.031 (0.45)	-0.041 (1.32)
Independent	0.31 (1.11)	0.25 (0.54)	0.84*** (2.65)
Board	0.0098 (0.71)	-0.006 (0.27)	0.033** (2.33)
R^2	0.799	0.768	0.806
Number of observations	160	80	80

Notes: OLS estimates, including fixed-time effects.
OLS standard errors are replaced by SUR period robust errors.

In column 1, the statistically significant variables are the lagged endogenous *Size* and *ROA* variables. Smaller firms and those with higher *ROA* show higher Tobin's Q values. This result is in line with Campbell and Mínguez-Vera (2010). The *Age* variable is not result significant. This is in line with Campbell and Mínguez-Vera (2010). However, this is not the case in Mínguez and López-Martínez (2010), where *Age* is significant and has a negative coefficient.

Things are different when the two sub-samples are used. Both the lagged endogenous and *Size* variables remain relevant and with the same sign throughout both four-year periods. But *ROA* becomes statistically significant in the period 2005-2008, as in Vivel *et al.*, (2013), and *Independent* and *Board* become relevant in the last column. Lefort and Urzúa (2008) also find that the *Independent* variable is not significant given that the period under study is 2000-2003, the pre-crisis period. The coefficient for these variables is positive. Value creation grows with both the share of independent board members and board size. This result supports the idea that the structure of boards is much more relevant in difficult and challenging times. Moreover, results are the same when the share of dominical counselors is used instead of the proportion of independent directors. The sign of the coefficient is the opposite: value drops with the share of dominical counselors in the board[vii]. Estimated coefficients in the last column of Table 5 and ranks of both variables in Table 4 can be combined to get an idea of the impact of both variables on q[viii]. Ceteris paribus, the positive contemporaneous effect of

Independent on *q* would range from 0.05 to 0.75; and the effect of *Board* from 0.26 to 0.66. For this second period *q* ranged from 0.19 to 3.67 and the mean was 1.46.

Finally, family ownership and the number of women on firms' committees are not relevant to explain Tobin's Q. Our result regarding family ownership differs from the result reached by Villalonga and Amit (2006), who obtain a positive relationship between family business and value creation. In contrast, it matches the result obtained by Barontini and Caprio (2006). Our interpretation of results is related to the fact that family-owned businesses move forward from one generation to another, with ownership and management growing apart, corporate governance becoming more professionalized and the differences between family and non-family businesses in terms of governance becoming non-existent. All the family businesses analyzed in this study are beyond the founding stage. Concerning the role of women, our results match with those by Carter *et al*., (2010), who also found the relationship between gender diversity and financial performance (measured via Tobin's Q) to be neither positive nor negative. In our opinion, this last result can also be interpreted in more positive terms: measures to promote gender equality on boards have not involved paying a price in terms of value creation.

DISCUSSION

Our findings contribute to understanding of the link between corporate governance and value creation. They show that: independence of directors has been relevant and involved a positive effect on the creation of value in the crisis period; gender diversity in corporate governance has no systematic or significant effect (either positive or negative) on value created; family ownership does not seem to exert a differential influence on value creation.

Independence on boards

Our results lead us to believe that current governance structures are not as efficient as they could be. It seems that restructuring companies would lead to greater generation of value. In recent years, many countries have drawn up codes of good governance for listed companies in an attempt to improve the way their governing bodies function (Zattoni and Cuomo, 2008), with most of them proposing that the number of independent directors be increased. Restructuring of boards to achieve greater professionalism and independence would lead to greater value creation.

Therefore, according to Lei and Song (2012), companies that want to increase their value through corporate governance should reorganize their boards by giving them more independence. In line with this, empirical work concludes that in difficult times, the level of independence has had a positive effect on the creation of value.

Gender diversity

Previous studies analyzed how diversity in governance bodies affected the creation of value. Moreover, in recent years several countries have adopted different regulatory attempts to try to increase the number of women in corporate governance, both in the public and private arenas (Storvik and Teigen, 2010). In our research we analyze the presence of women in governing bodies, by measuring their presence in key committees and their impact on value creation in listed companies. Our results are neutral. No

effect, either positive or negative, was observed in the generation of value has been observed.

Family ownership

The literature seems to reflect different results when it analyzes the effect of family character on value generation. In our paper, no effect (either positive or negative) on the value of firms is observed. The reason may lie in the fact that, given market demands, the companies under study listed on the main Spanish stock index are highly professionalized and, therefore, there are no differences in the way the board functions in respect to non-family-owned firms. Family-owned businesses that are beyond the founding stage, as is the case of all the family firms in our sample, separate the place for making business decisions (the board of directors) from the place for family decision-making (by creating specific family structures such as a family board).

Theoretical Implications

Although its starting point is agency theory, complemented by resource dependence theory, the paper resorts to the sociological theory of the strength of weak ties (Granovetter,1973) to explain its results. Since a board consists of people with individual characteristics and different professional profiles, we believe that it is necessary to complement purely economic theories with behavior theories as these provide new perspectives.

In mathematical sociology, interpersonal ties are defined as information-carrying connections between people. Interpersonal ties generally come in three varieties: strong, weak, or absent. It is argued that weak ties are more present in social networks, and are the ones that transmit most information through these networks. More specificall, new information flows to individuals through weak ties rather than through strong interpersonal ties. Absent ties correspond to relationships with no substantial meaning. "The strength of an interpersonal tie is a linear combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize each tie" (Granovetter, 1973: 1361). Weak ties act as bridges between both groups.In our case, the weak ties would be represented by independent directors (men or women) who represent a bridge between shareholders and executive members, and whose common goal is to be more efficient in decision-making.

Practical implications

This study leads to some conclusions that are relevant for business management. The observed results indicate that companies restructuring their boards could be recommended to move towards greater independence. This change in their composition would have a positive effect on the creation of value (according to Lei and Song, 2012).

Our study seems to reflect that new regulations and codes of good governance are not having the desired effect: greater inclusion of women in relevant managerial positions. Norway is the only European country where parity has been accomplished (through punitive measures). Perhaps both Spanish and European institutions should reconsider the measures they have implemented, if they want to achieve real parity.

According to the theory of the strength of weak ties (Granovetter, 1973), this is not just about increasing the number of independent directors, and the number of women. It also means that they must achieve a minimum percentage so they can exert an influence on corporate governance, and thus on value creation.

Limitations and future research

We are aware that this paper has some limitations. The first is that the work is focused on the analysis of listed companies in Spain alone. Future research should extend this study to other countries for the purpose of comparison. A comparative analysis between two blocs could also be considered: one made up of the nations most affected by the crisis (Greece, Portugal, Italy, Spain), and the other of countries such as France, Germany and Britain.

The second limitation concerns gender diversity. The presence of women in corporate governance in the companies analyzed is very small. It does not reach the minimum critical mass (of at least three women, according to Konrad, Dramer and Erkut, 2008) to be able to exert an effect on the generation of value. So perhaps our research should be repeated in the future within a context where a greater number of women enrolled in the highest management bodies is observed.

CONCLUSIONS

The results obtained may induce us to think that the current governance structures of listed companies are not the most efficient, and therefore restructuring them will allow for the generation of more value. There have been several attempts to improve the governing bodies of Spanish listed companies, with the publication of several reports and codes of good governance (CNMV, 1988, 2003, 2006). All of them recommend greater board independence. This paper analyzes the level of independence of the governing bodies of listed companies for the period 2005-2012. Empirical work shows that the greater the number of independent directors, the greater the value created. This impact is higher in times of crisis than in good times. In this case, independence is valued more than gender. Additionally, it appears that it is not only important to increase the number of independent directors, but it is also vital that this number should reach a minimum percentage to influence the board.

In Spain in recent years, institutional and legislative efforts have attempted to increase the presence of women on the boards and committees of listed companies. Following these changes, it appears that in many cases women have been included on boards just to comply with the rule, regardless of efficiency. Proof of this is the fact that, in several companies, after publication of Law 3/2007 for Effective Equality between women and men, only one woman was included on the board and the critical mass cited by the literature of at least three women to exercise a certain impact on value creation was not reached. This study shows that gender diversity in the governing bodies of the Spanish companies listed on the IBEX-35 does no harm but has no positive effect either. This reflection should be taken with caution, given the small numerical presence of women in the companies under study. Policy and actions are planned to increase gender diversity in corporate governance by the year 2015. Future research could consider performing an additional analysis after this period.

In this study, family ownership is not observed to have any effect on governance whatsoever. This may be because all of listed companies are highly professionalized.

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NOTES

[i] Demsetz and Villalonga, 2001; Carter, Simkins and Simpson, 2003; Nicholson and Kiel, 2007; Esteban, 2007; Lefort and Urzúa, 2008, De los Ríos, Jiménez, Valencia and Peralbo, 2009; Campbell and Minguez-Vera, 2010.

[ii] Hermalin and Weisbach (1991), Wiblin and Woo (1999) and Minguez and Martin (2003) find no significant relationship; Agrawal and Knoeber (1996) show a significant but negative relationship, while the results of Baysinger and Butler (1985), Barnhart; Marr and Rosenstein (1994) and Yermark (1996) point towards a conflicting significant and positive relationship.

[iii] Erhardt, Werbel, and Shrader (2003) and Campbell and Minguez -Vera (2010), Carter *et al.,* (2010) ,Bilimoria (2000) and Esteban (2007).

[iv] See, amongst others, Kochan, Bezrukova, Ely, Jackson, Joshi, Jehn, Leonard, Levine, and Thomas. (2003) and Bohren & Ström (2010). Rose (2007) states that there is no evidence of any relationship between the two variables on Danish boards due to the very tiny presence of women in leadership positions there.

[v] In this paper, insurance companies, banks, and firms that were not listed during the research period were excluded. The 21 companies analyzed were the following: Abertis, Abengoa, Acciona, Acerinox, ACS, Ebro Foods, Enagás, Endesa, FCC, Ferrovial, Gas Natural, Iberdrola, Indra, Mediaset, OHL, Red Eléctrica, Repsol, Sacyr, Telefónica, Viscofán. While Inditex was also included in preliminary estimates, , in the end it was discarded.

[vi] We also tested, and rejected, the need for including individual fixed-effects.

[vii] Insofar as both proportions are highly correlated, when both variables were observed at the same time, multicollinearity was troublesome.

[viii] While the rank for *Independent* in the second four-year period is the same as in Table 6, the rank is slightly lower in the case of *Board*: 8-20 instead of 7-21.