THE INFLUENCE OF THE BOARD ON FIRM PERFORMANCE: AN EMPIRICAL VISION IN THE SPANISH CAPITAL MARKET

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Abstract

Corporate governance research suggests that board monitoring will be more effective if boards consist primarily of independent outside directors. However, the results of previous studies testing board effectiveness have been mixed. We offer new insights of these relationships in a country whose particular corporate governance system is characterized by high concentration of ownership, mainly through pyramidal groups, and low legal protection of investors. Specifically, the aim of this paper is to investigate the influence of the independent directors on firm performance in Spain. We find that the addition of independent directors to the boards increases firm value, as the relationship between the proportion of independent directors and performance is positive and significant.

Keywords: corporate governance; board; performance; capital markets.

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1. Introduction

Corporate governance affects the development and functioning of capital markets and exerts a strong influence on resource allocation. Previous studies have analysed the effectiveness of a firm's governance system by looking for the relationship between corporate governance and market value, discretionary accruals and voluntary disclosure, although the greater attention has been paid to the effects on firm performance.

The board of directors is the highest internal control mechanism responsible for monitoring the actions of top management. Corporate governance research usually distinguishes between inside or executive and non-executive (independent) directors: executive directors are those involved in the management of the firm, and independent directors are those members of the board that represent the interests of the minority shareholders. Obviously, a board dominated by inside directors may not be able to fulfil its supervisory function properly, as personal relations make critical reflections on corporate policy less likely. That is why the adoption of outside directors in the board enhances the board monitoring power: outside directors on corporate boards select, monitor, reward or punish management, and can also play an important role in formulating business strategy. As a result, in an effort to enhance the effectiveness of the board, a recent trend is to require that the board be constituted with a majority of independent directors (Park and Shin, 2004).

The importance of outside directors is widely debated in the literature. However, although corporations in most countries of the world have board of directors, and it is considered an effective corporate governance mechanism in theory, in practice its value is less clear, and the research on the benefits associated with the increasing number of independent directors on the board is still limited and mixed.

Existing empirical evidence supports the prediction that board effectiveness in protecting stockholders' wealth is a positive function of the proportion of outsiders on the board (Weisbach, 1988; Brickley et al., 1994). Fama and Jensen (1983) observe that outside directors compete in the outside directors' labor market and have incentives to develop reputations as experts in monitoring management because the value of their human capital depends primarily on their performance as monitors of top management of other organizations. Weisbach (1988) finds a significant relationship between firm performance and CEO turnover only when at least 60% of the board is made up of outside directors. Rosenstein and Wyatt (1990) find a positive stock price response to 1,251 outside director appointment

announcements between 1980 and 1985. Byrd and Hickman (1992) use 128 tender offers between 1980 and 1987 to show that bidding firms with outside-dominated boards have significantly less negative abnormal returns around their takeover announcements than firms without outside-dominated boards. Similarly, Brickley et al. (1994) use a sample of 247 poison pill announcements between 1984 and 1986 to show that the market reaction to poison pills is positive when a firm has an outside dominated board and negative when the majority of a firm's directors are insiders. Finally, Cotter et al. (1997) use a sample of 169 tender offer targets to show that target shareholder gains are larger when a majority of the target's board are outsiders.

On the other hand, several recent studies have identified a negative or none relation between firm performance and the dominance of outside directors. Agrawal and Knoeber (1996) document that outsiders on the board have a negative effect on firm performance, even when the endogeneity of board composition is taken into consideration. Similarly, Yermarck (1996) finds that firms with a greater proportion of outside directors perform worse than the rest of companies, and Hermalin and Weisbach (1991) and Bhagat and Black (1999) also show that firms with more independent boards do not perform better than other firms. Another interesting hypothesis is advanced by Baysinger et al. (1991), who suggest that enhanced monitoring process provided by outside directors may actually have a perverse effect: managers may reduce their time horizon for planning and become risk averse because of their fear of actions by outside directors. Overall, as Bhagat and Black (1999) argument, there is no convincing evidence that greater board independence correlates with greater firm profitability. In particular, there is no empirical support for current proposals that firms should have "supermajority-independent boards" with only one or two inside directors.

This paper contributes to the existing literature on the role of the board by focusing on Spain, a continental country that differs strongly from the Anglo-Saxon business world. We conduct the first large-sample, long-horizon study of whether the degree of board independence (proxied by the fraction of independent directors on a company's board) correlates with performance of large Spanish firms. We find that even controlling the omitted firm characteristics (unobservable firm heterogeneity) through panel data methodology, independent directors improve firm value, as the relationship between performance and the proportion of institutional directors on the board is positive and significant.

The paper is organised as follows: In section 2 we detail the methodology used and describe the sample and variable measures used in the empirical analysis. Section 3 summarizes the principal findings and, finally, we finish with the conclusions and implications of the results.

2. Empirical research

The aim of this study is to analyse the influence of independent directors on firm performance. For this purpose we use a sample of Spanish non-financial listed companies on the Madrid Stock Exchange during 1999-2002. The principal source of our data is the CNMV (Spanish Securities and Exchange Commission), which provides accounting and financial information for listed companies. The data on directors have been collected from the answers to a questionnaire voluntarily sent by a set of firms to the CNMV about the compliance with the recommendations of the Olivencia Report. We exclude financial companies because government regulation leads to more limited roles for their board of directors.

In accordance with previous literature, we use panel data that allow us to control for the unobserved firm effects and employ several control variables, such as size and leverage. We have constructed an unbalaced panel of 41 firms and 104 firm-year observations for the period 1999-2002. As some of these firms enter or exit into the capital market in the period and since nowadays is more accepted to use the whole unbalanced data set, the option of studying an balanced panel with fewer firms that might induce survivorship bias was discarded (Baltagi and Chang, 1994). The number of observations by year and industry, following the classification of CNMV in seven sectors is shown, respectively, in tables 1 and 2. The main sector is *Investment and Intermediate goods*, which provides a 25% of all the companies, whereas *Building* represents less than 6% of the sample. For the remaining sectors, the number of observations are rather balanced, oscillating between 16 and 18% of the sample.

Insert table 1 here
Insert table 2 here

Variables and descriptive statistics

We use Q ratio (the market value of the firm divided by the replacement cost of its assets) as the measure of firm performance. To calculate Q we follow the aproximation used for many studies in corporate governance (Himmelberg et al., 1999; Faccio and Lasfer, 1999; Demsetz and Villalonga, 2001; Kappler and Love, 2003): sum of market capitalization plus long and short-term debt over the book value of total assets. As the purpose of our paper is to assess the effect of independent directors on firm performance, we employ the

percentage of independent directors on the board (*indep*). To the extent that independent directors monitor management more effectively than inside directors, we hypothesize that companies with a greater proportion of independent directors will have higher profitability.

We control for variables other than governance, which may affect the firm performance. Following previous studies in corporate governance (Morck et al., 1988; Cho, 1998; McConnell and Servaes, 1990; Faccio and Lang, 2000; and de Miguel et al., 2003b), the control variables are: firm size, leverage and year dummies. L_Sales is the natural logarithm of annual sales revenue, while Lev represents the debt to total assets ratio, which controls for any possible leverage effect. The dummy variables (λ_{00}, λ_{01}, λ_{02}) control for the possible year effect. The descriptive statistics for the variables are shown in table 3:

Insert table 3 here

The mean of Tobins' *Q* in our sample is 1.71, similar to those values reported by other studies: in US Demsetz and Villalonga (2001) report a Q value of 1.1; in UK Faccio y Lasfer (1999) obtain an average Q value of 1.51 while in Hillier and McColgan (2001) the Q is of 1.96. The average value for *indep* is 38.32%, which is lower that the value reported by other studies: Peasnell et al. (2000) found a mean value of outside members of 42.7% in U.K. and Park and Shin (2004) in Canada reported a mean of 67.3%. Nevertheless, in Spain there is an acceptable degree of compliance with good governance practices since apart from the independent directors, there is also another type of non-executive directors, the institutional directors, who represent the interests of institutional shareholders.

Econometric model and estimation process

In order to evaluate the effect of independent directors on firm performance we regress *Tobin's Q* on *indep* and the control variables. Specifically, the model for testing our hypothesis is the following:

$$Q = \beta_0 + \beta_1 Indep_{it} + \beta_2 L\_Sales_{it} + \beta_3 Lev_{it} + \lambda_t + \eta_i + \upsilon_{it}$$

Where *Indep* is the percentage of independent directors on the board; *L_Sales* is the natural log of sales; *Lev* is the debt to total assets ratio; λ_t represents the temporal effects (year dummies); η_i the unobserved firm effects (unobservable heterogeneity), and υ_{it} is the error term..

Since we have a panel of firms, with data both across firms and over time, panel data methodology was employed in the empirical analysis in order to obtain consistent estimates of the parameter coefficients. This methodology allows us to control for the unobserved (time-invariant) firm effects that influence firm value and cannot be measured. The estimation process has been carried on considering the possibility that there exist or not a correlation between firm fixed effects (unobservable heterogeneity) and independent variables. In the first case (fixed effects estimation) the estimation is based on the within groups estimator, while in the second one (random effects estimation) the estimation is carried on with the Generalized Least Squares (GLS) method. In order to choose between both estimation methods, we have performed Hausman's test (1978), which compares the consistent fixed-effects model with the efficient random-effects model under the null hypothesis of difference in coefficients not sistematic.

3. Results

The results in table 4 show that the percentage of independent directors on the board has a positive and significant effect on performance (p < 0.01) supporting their monitoring role of top management and their contribution to reduce agency problems, ensuring that managers act in the interest of outside stockholders. The results also confirm that the independence of the board affects firm value due to it may mitigate the agency problems that arises when the board aligns itself with management as opposed to being an advocate for the shareholders. The results are in accordance with those that support the role of outside directors in protecting stockholder' wealth (Fama and Jensen, 1983; Weisbach, 1988; Brickley et al., 1994). Regarding the control variables, we observe that L_Sales has a positive and significant impact on firm performance (p<0.1) and the negative coefficient on the debt ratio confirms the pecking order theory,

Insert table 4 here

Conclusions

In this paper we examine, using panel data methodology, the relationship between firm performance and the independence of the board of directors for a sample of Spanish non-financial companies listed on the Madrid Stock Exchange during the period 1999-2002. We offer new insights of these relationships in a country whose particular corporate governance system is characterised by high concentration of ownership, mainly through pyramidal groups, and low legal

protection of investors. Work in this area leads to determine the underlying factors contributing to economic growth and to ascertain the key factors that shape the effectiveness of different corporate governance mechanism. As a result, this work tries to provide valuable input to the work of Committees, such as the OECD Council or the Commission of the European Communities, which are requesting continuous analytical work in this field. In particular, our evidence is also important to financial statement users wishing to know where to focus if they seek to identify governance factors associated most highly with firm performance. We find that even controlling the omitted firm characteristics (unobservable firm heterogeneity) through panel data methodology, the independent directors may help increase firm value. The results support previous arguments regarding the monitoring role of these directors and their contribution to the development of the company value, but are contrary to other results that suggest a negative effect of these directors on firm performance. The divergence of results suggests that additional research is necessary before making blanket statements about what corporate governance structures work best.

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Appendices

Table 1. Sample by year

	1999	2000	2001	2002	Total
Nº observations	22	26	27	29	104
%	21.1	25.0	26.0	27.9	100

Table 2. Sample distribution by sector classification

Sector	Nº of observ.	% Observ.
Consuming goods	19	18.3%
Investment and intermediate goods	26	25.0%
Energy	18	17.3%
Building	6	5.8%
Comunication and information services	18	17.3%
Market services	17	16.3%
Total		100

Table 3. Descriptive statistics

	N	Mean	Standard deviation	*Median*	Percent 10	Percent 90	Skewness	Kurtosis
Indep	104	38.32	20.40	33.33	14.29	73.33	.24	-.41
Q	104	1.71	1.48	1.20	.92	2.68	4.13	21.05
L_Sales	104	13.64	1.80	13.64	11.44	16.25	.23	-.30
Lev	104	.57	.17	0.58	.34	.80	-.44	-.17

Table 4. Estimation results

Model: $Q = \beta_0 + \beta_1 Indep_{it} + \beta_2 L\_Sales_{it} + \beta_3 Lev_{it} + \lambda_t + \eta_i + \upsilon_{it}$

Indep is the percentage of independent directors on the board; *L_Sales* is the natural log of sales; *Lev* is the debt to total assets ratio; λ_t represents the temporal effects (year dummies); and η_i the unobserved firm effects.

	Model
	Fixed effects
Indep	0.1198***
	(3.77)
L_Sales	1.611
	(1.71)*
Lev	-4.777**
	(-2.11)
λ_{00}	-0.971***
	(-2.96)
λ_{01}	-1.113**
	(-2.61)
λ_{02}	-1.550***
	(-3.44)
C	-21.189
	(-1.66)
R^2	0.3173
Prob>F	0.0010
p-Hausman	0.0377
Nº obs.	104

t statistics in parentheses
Significant at 1% (***), 5% (**), and 10% (*) levels.
p-Hausman: Hausman's test (1978) p-value: if Ho is rejected, then only within groups estimation is consistent. If Ho is not rejected, random effects estimation is a better choosing because is not only consistent but also more efficient than within groups estimation.