

THE SUBSTITUTION EFFECT BETWEEN MANAGERIAL CONTROL MECHANISMS AND ITS EFFECT ON THE CREATION OF VALUE IN REFERENCE TO FIRM DIVERSIFICATION

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Abstract

This paper aims to investigate the relationships between two governance mechanisms such as active shareholder control and the board of directors, as well as their effect on the creation of value for the shareholder, using firm diversification strategy as the moderating variable. These relationships indicate the existence of a substitution effect between both governance mechanisms, with a more inactive board in firms with large shareholders. On the other hand, the analysis of governance mechanisms and firm diversification strategy indicate the positive effect of shareholder concentration on the creation of value for shareholders in non-diversified firms and, the positive effect of the board of administration on the creation of value for shareholders in diversified firms.

Keywords: managerial control, firm diversification, corporate governance

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Introduction

Studies dealing with the agency relationship between shareholders and managers have focused on the problem of separating ownership and control (Jensen and Meckling, 1976; Fama, 1980; Fama and Jensen, 1983a,b; Eisenhardt, 1985,1989; Shleifer and Vishny, 1997). This paper will approach the issue dividing the agency relationship into two parts: the relationship existing between shareholders and board members and the relationship that exists between board members and directors. The division of the agency relationship into two different agency relationships can be justified when the focus is placed on the analysis of the board of directors as a corporate administrative organ.

The "traditionally studied" agency relationship reveals, in the first place, the consequence of the separation of ownership and control, which will be studied analyzing the types of board members: insiders as opposed to outsiders on the board, where the literature on the subject (Kesner et al., 1986; Baysinger and Butler, 1986; Hermalin and Weibach, 1991; Rosentstein and Watt, 1990; Kaplan and Reishus, 1990; Mallette and Fowler, 1992; Rechner et al., 1993) considers outside board members as better agents to represent shareholders' interests. In the second place, the above-mentioned "traditionally studied" agency relationship points to the need for control by the board of directors over operational and strategic management followed by corporate

management, in the interest of creation of wealth as the shareholder's goal.

This paper aims to determine the existence of a substitution effect between the control of active shareholders and the board of directors as mechanisms of control over top management, as well as its influence on the creation of value depending on firm diversification. In order to fulfil our objective, we shall firstly present, basing our study on the agency theory, the relationships between units of analysis: ownership structure, board of directors, diversification strategy, and performance. This will call for a model of analysis, based on Zahra and Pearce (1989), representing the function of control of the board of directors over managerial actions and decisions. We shall lastly present the design of our empirical research, the findings of the empirical testing of hypotheses and, to sum up, the conclusions.

Corporate Governance, Diversification Strategy, and Performance

Several different definitions of corporate governance have been coined. Baysinger and Hoskisson (1990) define corporate governance as the "integration of external and internal controls that harmonizes the conflict of interests of shareholders and managers resulting from the separation of ownership and control". Cadbury (1992) understands corporate governance as the "way in which businesses are managed and controlled". Shleifer and Vishny (1997) maintain that "corporate governance has to do with

the means by which those who supply financial funding are assured of an adequate compensation for their investments". Zingales (1998) defines it as the "Set of conditions that shape the negotiation a posteriori concerning the quasi-income generated by the firm".

Upon analyzing the above-mentioned definitions, we might point out that they all include two features. On the one hand, an internal element (management) and, on the other, an external factor (control). The mechanisms of control related to corporate governance may be classified as internal and external (Jensen and Meckling, 1976; Fama and Jensen, 1983b). The former include executives and board members as shareholders, compensation systems for managers and the board of directors itself. External mechanisms encompass capital markets, the control exerted by large stockholders, the takeover market, debt, the managerial labor market, and the product and service market.

The agency theory points to the fact that management will opt for diversification strategies that destroy value, if the personal profits derived from diversification exceed personal costs (Jensen, 1986; Sulz, 1990; Jensen and Murphy, 1990). Consequently, reasons exist to believe that management obtains personal profits from diversification strategies. Given that such strategies reduce shareholders' wealth (Denis, Denis and Sarin 1997, 1999), management and shareholders' interests are clearly in conflict in regard to diversification as a strategic decision. Amihud and Lev (1981, 1999), Hill and Snell (1988), Denis, et al. (1997, 1999) point out that corporate diversification is related to ownership concentration, in such a way that firms with ownership diffusion tend to be more diversified, especially in unrelated activities.

Therefore the goal of corporate governance, according to the agency theory, is to minimize agency costs, aiming to avoid that the separation between ownership and control give rise to inefficient organization and management. Thus, management discretion finds its limits in the workings of different control mechanisms.

INSERT FIGURE 1

Basing our study on the model set forth by Zahra and Pearce (1989), this paper makes use of two premises as a point of departure: firstly, the composition of the board of directors is influenced by the existence of significant or controlling shareholders and, secondly, the control exerted by the board itself, depending upon its composition and characteristics (number of members, types of members, frequency of meetings, and the commissions of the board of directors), will lead the firm towards the development of diversification strategies in the interest of shareholders and, consequently, the creation of value as an objective of corporate ownership.

Marseguerra (1998) pointed out the necessary conditions for considering shareholder concentration as a control mechanism for management. In this sense and in the first place, it is necessary to observe patterns of corporate ownership, which should reveal an important degree of concentration. And, secondly, shareholders should be given an incentive as far as performance (profits) is concerned in order to carry out an active control function. Only when both conditions are met can ownership concentration be defined as an effective mechanism to monitor management.

A great deal of literature concerned with the issue of corporate governance identifies the role of board control (Bainbridge, 1993; Fama, 1980; Mizuchi, 1983; Zahra and Pearce, 1989; Johnson, Daily and Ellstrand, 1996). Board control is a key element in the study of corporate governance since it involves the monitoring and validation of important corporate decisions.

A key element in the study of the control function of the board of directors is the analysis of ownership structure, since we can expect the composition of the board to differ in accordance with ownership concentration or dispersion¹ (Rediker and Seth, 1995; Whidbee, 1997). Therefore, in firms in which stockholders have active control, as a consequence of their shareholdings, agency problems are fewer, since ownership concentration itself is defined as a control mechanism of management². The above-mentioned relationships are the consequence of different attitudes towards shareholder and managerial risk. (Jensen and Murphy, 1990; Comment and Jarell, 1995; Berger and Ofek, 1995). As to risk, while shareholders may diversify risk in the market, managers must carry out investment policies in different sectors so as to minimize the risk of losses.

The substitution effect between corporate governance mechanisms

Different findings in the literature dealing, on the one hand, with relationships between shareholder concentration and performance (Demsetz and Lehn, 1985; Morck et al., 1988; Weibach, 1988; Kaplan and Reishus, 1990; McConnell and Servaes, 1990; Marr and Rosentein, 1994; Agramal and Konoerber, 1996), and on the other, with the relationships between board control and corporate performance (Baysinger and Butler, 1985; Rechner and Dalton, 1986; Boeker and Goodstein, 1993; Daily and Dalton, 1994; Barnhart, Marr and Rosetein, 1994) are the result of the consideration of a governance mechanism in isolation (Rediker and Seth, 1995). Performance efficiency therefore depends on the consideration of multiple governance mechanisms. Thus Morck et al. (1988) encounter different relationships between ownership in the hands of board members and performance, for different levels of ownership. These findings can be explained by the

effect produced by other substitute governance mechanisms for particular levels of ownership.

Following the basic model of analysis where two governance mechanisms considered in this paper are identified (ownership structure and board of directors), we shall next establish the relationships between them in accordance with decisive elements of control by the board of directors.

Size, composition and characteristics of the board of directors

The size of the board of directors should "allow for the representation of the rank and file of shareholders, diversity of opinions, efficiency in the analysis and decision-making process, as well as performance cost (Eguidazu Mayor, 1999:59). Apart from the type of board member, large boards of directors reduce agility and capacity of reaction in the face of complex reality, and this type of board may be considered a mere organ of cost (Pfeffer, 1972; O'Reilly, Caldwell and Barnett, 1989; Lipton and Lorsh, 1992; Yermack, 1996). On the other hand, a large board of directors offers more criticisms of and points of view regarding questions to be dealt with, thus improving the performance of board members and, consequently, the quality of corporate management (Pearce and Zahra, 1992; Fernández Méndez, 2000).

There is no standard measurement of board composition and the literature reviewed offers different definitions of outside board members (Daily, Johnson and Dalton, 1999). The key to the question is to discern to what extent the board members are truly independent of the president or controlling shareholders (Dalton, Johnson and Ellstrand, 1999).

Reforms in corporate governance advocate an increase in outside representation on the board as a measure to protect shareholders' interests, assuming that outside members are more effective as far as shareholders' interests are concerned (Mallete and Fowler, 1992; Rechner, Sundaramurth and Dalton, 1993; Kesner, Victor and Lamont, 1986).

The study of power duality (one person in the post of CEO and Chairman) attempts to analyze, on the one hand, features of power and, on the other, board member independence. The concentration of shares in the hands of one or few shareholders is associated with firms in which the ownership structure as a governance mechanism offers incentives for the exertion of control. In this type of firms, power is exerted by large shareholders and, as board members, they will offset the power of the CEO. Nevertheless, in firms with disperse ownership and without majority shareholders, dual power structures can be found and the dual president directs not only day-to-day operations but also the board's agenda. If the exertion of control by shareholders justifies the separation of dual posts, then firms with disperse ownership will show a greater tendency to develop dual power structures than firms with concentrated ownership. A study of the number of meetings offers a new line of research suggesting an analysis of the

intensity of board control. Thus more or less board control over managerial actions is measured by the effect that board meeting frequency has on corporate performance (profits-profitability). Conger et al. suggest that board meeting frequency may be considered a measure of board effectiveness as far as control is concerned and they also point out that boards which meet frequently carry out, in greater measure, their obligations in accordance with shareholders' interests. Jensen (1993) suggests that boards are relatively inactive and that they are forced to maintain a large degree of control, meeting with greater frequency when problems arise. Thus, board meetings serve as proactive measures of corporate governance. If the most important control function of the board of directors is a good proxy measurement of active control by board members, then the control function of the board should be a substitute for high levels of ownership for managerial monitoring. Concretely, where ownership concentration exists, shareholders have incentives to protect their interests and need less board supervision, and consequently, the exertion of control by the board measured by the number of meetings is an alternative for costly control.

Bilimoria and Piderit (1994) offer several contributions in relation to board functions, which can be summarized as follows: legitimization (monitoring the fulfillment of legal requirements), management (regarding the approval of corporate mission, strategies, and policies), and control of management. On the other hand, the authors state that these three functions are being delegated to board commissions, handing over responsibility to them. The idea behind the establishment of commissions of the board of directors is the specialization of its members in specific undertakings of the board (Kesner, 1988).

Given the existing restrictions in Spain regarding this type of data, we shall set forth an hypothesis that links the composition of the board of directors to the number of commissions. Accordingly, in a board dominated by outsiders, it is likely that board commissions will be formed at the request of those outside members in order to exert a more thorough control over the firm.

The effect of active shareholder or board control on firm performance has been studied, but few studies (Morck et al., 1988; Rediker and Seth, 1995; Whidbee, 1977) analyze both governance mechanisms alternatively in their research. The idea behind our study departs from the definition of shareholder concentration as a control mechanism that reduces activities of control practiced by the board of directors. In this way, when firms have active or controlling shareholders, the board of directors as a governance mechanism is more inactive than in firms in which shareholder dispersion exists.

Hypothesis 1: *The existence of shareholder concentration in the composition as well as in the characteristics of the board of directors implies less*

control potential than with the existence of shareholder dispersion.

Hypothesis 2: *The existence of CEO duality, frequency of board meetings and the number of board commissions depend on the proportion so outside directors.*

Corporate governance and diversification

Corporate diversification involves "decisions tending to widen and/or diversify the sphere of corporate activity" (Suárez González, 1993). This paper will consider that the sphere of corporate activity refers solely to the sectors in which the firm operates.

Corporate diversification may involve a conflict of interests between shareholders and directors in situations in which such diversification implies maximizing the wealth of the latter. The agency theory anticipates a negative relationship between shareholder concentration and corporate diversification. Without shareholder control, directors are more likely to adopt policies that reduce shareholders' wealth since they tend to maximize their utility function. Therefore, the relationship with diversification is negative in the presence of large shareholders since they have incentives to exert active control over management.

Unrelated diversification can be considered the result of managerial discretion, aiming towards the maintenance of high growth rates and the reduction of corporate risk. This second reason provides the justification for unrelated diversification as a corporate strategy to attain managerial rather than shareholder objectives.

Berle and Means (1932) pointed out that ownership concentration has significant implications as far as corporate strategic development is concerned. Other authors (Demsetz, 1983; Demsetz and Lehn, 1985) conclude, on the other hand, that ownership distribution is irrelevant. More current studies (Lane, Cannella and Lubatkin, 1998, 1999; Amihud and Lev, 1981, 1999; Denis, Denis and Sarin, 1997, 1999) insist on the contradictions in the results. However, these contradictions, according to the debate set forth by these authors, are due to the theoretical approach chosen as the basis of their study. Amihud and Lev (1981, 1999) and Denis et al. (1977, 1999) defend the theoretical basis of agency, while Lane, Cannella and Lubatkin (1988, 1999) conclude pointing out that little theoretical and empirical evidence exists to believe that shareholder control has an influence on diversification and acquisition decisions.

On the other hand, asserting that the board of directors should become involved in strategic management (Mizruchi, 1983; Zahra, 1990; Urquijo de la Puente and Crespo de la Mata, 1998), the obligation of outside directors is to ratify the initiatives and control the quality of the decision-making process, as well as the introduction of strategies arising from this process (Hoskisson et al.,

1994). For this reason, we affirm that determinant factors of the board of directors delimit diversification strategy.

Hypothesis 3: *The exertion of control by active shareholders or by an active board of directors conditions the extent and type of corporate diversification.*

Corporate governance, diversification, and creation of value

The research proposed has as its objective the explanation of corporate performance, relating it with both the composition and the characteristics of the board and diversification strategy. For this reason and considering the control function of the board to be defined by its composition and characteristics, we propose the following hypothesis:

Hypothesis 4: *The exertion of active control by majority shareholders or by the board of directors, in the absence of the former, and corporate diversification strategy have an influence on corporate value.*

Although the wording of this hypothesis is not in line with expected relationships, we consider the number of board members and the proportion of outside members on the board to have a positive effect on performance. If outside board members are considered representatives of shareholders in firms with no existing majority shareholders, we should find a positive relationship between this outside representation and creation of value. On the other hand, if control by the board is more exhaustive with a greater number of board members, we should expect a positive relationship with firm value.

As to the characteristics of the board, if insiders represent managerial interests and outside members represent shareholders' interests, and if, in addition, dual power structures are related to a fewer number of outsiders and scarce shareholder concentration, then according to the agency theory, a negative relationship between power duality and firm performance can be anticipated³.

The relationship between the number of meetings and corporate value is not, at first sight, clear. In the first place, there are costs related to meeting frequency, managerial time, travelling and other expenses, etc. But there are also a series of benefits such as more time for consultation, strategy development and managerial control on the part of board members. In brief, the relationship between board control measured by the number of meetings and corporate value is an empirical issue (Conger et al. 1998).

As to the number of board commissions, it is to be expected that if the board delegates decision-making to commissions created for this purpose, board control will be more effective and, consequently, the relationship with performance will be positive (Kesner, 1988; Bilimoria and Piderit, 1994).

Research Design

Data and Samples

To check our hypotheses a sample of firms unrelated to the finance sector and quoted on the Madrid Stock Exchange was selected. Of a total of 158 analyzable firms, the final sample included 56 firms⁴.

The data required was taken from reports on the extent of adaptation to the 1998 *Ethical Code of Corporate Boards of Directors*⁵ to Spain. Of a total of 86 firms that elaborated this report, only 27 identified the type of board member (considered a key factor in our study). In order to enlarge the sample, information supplied by Spencer Stuart Consulting in 1999 concerning Spanish boards of directors in 1998⁶ was analyzed. We found information on 39 firms, 10 of which had already been included in our database after elaborating a report on the extent of adaptation to the *Ethical Code of Corporate Boards of Directors*. After analyzing the information on these 10 firms and verifying the information supplied by the consultants⁷, the sample increased by 29 more firms as compared to the first 27 that had elaborated a report on the extent of adaptation to the *Ethical Code of Corporate Boards of Directors*.

Variables

Ownership Structure

Shareholder concentration, dummy variable that takes value 1 if the firm is considered concentrated ownership due to the existence of large shareholders, and 0 if it is considered disperse ownership. To classify firms in one group or another, a cutting-off point of 10% of ownership in the hands of the largest investor was used- A_1 - (Kamershen, 1968; Lerner, 1970; Levin and Levin, 1982, among others). The determination of this cutting-off point is justified due to the fact that ownership concentration in Spanish firms is quite high when compared to American firms (Cuervo Cazorra, 1997).

On the other hand, as to firm ownership structure, we have taken into account shareholder participation of the president and ownership in the hands of board members. The participation of members of the board of directors (board members and the president) have been categorized for two reasons: firstly, because in some firms the president neither declares nor demonstrates his participation and, secondly, so that no information will be lost in statistical analyses.

Composition and characteristics of the board of directors

The number of board members is defined as the total number of board members in 1998. Though this measurement is mainly descriptive, we consider that it should be taken into account. Dalton, Johnson and Ellstrand (1999) find that firm size has a moderating influence on the relationships between the size of the board and firm performance.

As to the composition of the board of directors, we have defined the proportion of insiders and the proportion of outsiders, differentiating in the latter the proportion of independents on the board and the proportion of "dominicales".

The characteristics of the board of directors have been measured using the following variables: Duality of power, defined by a dummy variable that takes the value 0 if the power structure is independent and 1 if it is dual. Number of meetings, defined as the number of sessions held during the year in question. Total number of commissions, defined by the total number of commissions of the board of directors as a proxy measurement of the delegation of board control to specialized organs.

Strategic diversification

Strategic diversification. There is no standard measurement of strategic or firm diversification in literature dealing with this question, but traditionally two different measurements can be found: continuous and categorical. The goal of the former is to measure the degree of diversification, while the latter measures the type of diversification.

As continuous measurements we have used: an Entropy Index, based on studies by Palepu (1985) and Hoskisson et al. (1993), defined as: Entropy index = $\sum_{i=1}^n P_i \times (\ln 1/P_i)$, where P_i is the proportion of sales from activity i over total firm sales. The entropy index can take values that vary from 0 to 460. The values approaching 0 indicate a high degree of diversification, while those approaching 460 show a low degree of diversification, and consequently the relation between the degree of diversification and index values is inverted.

As to categorical measurements, we have made use of the measurement set forth by Wrigley (1970) and modified by Rumelt (1974), which classifies firms according to the ratio of productive specialization (RE) and the ratio relation (RR)⁸.

In order to carry out the classification of firms in accordance with the type of diversification strategy we have proceeded as follows: in the first place, the percentages of sales of each declared activity were extracted from the annual reports. Secondly, the declared activities were identified with the corresponding 4-digit SIC codes. Once the sector in which each one operates and the sales figures were determined, the ratio of productive specialization was calculated. Thirdly, groups of segments in which the firm operates were determined, using the first two digits of the SIC code, and with this data the ratio relation was calculated. Finally, comparing the values of the ratios obtained with the fixed intervals in the definition of the RUMELT variable, we proceeded to classify the firms in the following categories: only one sector, dominant, related or non-related diversification.

In our research and making use of continuous measurement, the degree of diversity was quantified and, afterwards, the data was transformed in order to

describe the type of diversification using the categorical measurement (Hall and St. John, 1994).

Creation of value

The literature dealing with this question, upon analyzing the effects on performance, has made use of diverse measurements, both accounting and market measurements. In this paper and given that theoretical arguments refer to the maximization of shareholders' wealth, we have opted for a market-based measurement. To be exact, we shall use the "value curve", defined as the quotient between the market value of funds and their accounting value of these funds.

Lastly, two control variables have been considered. Firm size measured by the number of employees and firm age measured by the number of years since the founding of the firm to the date in question.

Results

Substitution effect

Before analyzing the substitution effect between two governance mechanisms in consideration- ownership structure and the board of directors- we have proceeded to study the correlations between the variables in order to approach the existing relationship between them.

INSERT TABLE 1

The correlation analysis shown in Table 1 indicates the existence of significant and negative relationships between shareholder concentration in the hands of large shareholders and the proportion of independents, number of meetings and board commissions. This leads us, in principle, to consider the possible existence of the substitution effect between ownership structure and the board of directors as a governance mechanism. Greater shareholder concentration is linked to greater shareholder control, and the independent is therefore not regarded as a crucial element to represent shareholders' interests. On the other hand, as a consequence of shareholder concentration and control, the board of directors does not establish the need for a large number of meetings and board commissions as proactive means of governance.

As to ownership in the hands of the board of directors, we surprisingly encounter a positive relationship between this variable and the proportion of insiders. Thus, the greater the ownership directly represented on the board, the greater the proportion of inside members on the board. This relationship can be explained from a point of view opposed to the substitution effect. That is, in the presence of greater direct representation of shareholders on the board, the number of insiders will increase due to the need to balance inside or executive points of view concerning firm development with views that are external or

related to control over the board and its actions. In this way, the board becomes a forum for debate between the principal and the agent of the "traditionally studied" agency relationship.

As to ownership in the hands of the president, an increase in his participation shareholding is linked to fewer board members, fewer outsiders, and fewer numbers of meetings and board commissions. These relationships point to an entrenchment effect on the part of the president and, therefore, the variables used as means of control by the board become less important as the president's shareholdings increase.

On the other hand, we find a positive and significant relationship between ownership in the hands of the president and the proportion of insiders. This relationship leads us to consider, as pointed out in the literature dealing with the issue (Filkelstein and D'Aveni, 1994; Westphal and Zajac, 1995; Mace, 1971; Pfeffer, 1972; Kosnik, 1987; Wade et al., 1990; Cannella and Lubatkin, 1993; Shivdasani and Yermack, 1999, among others), that in firms in which the president possesses a high degree of discretion and power, due either to his duality or large shareholdings, a larger number of insiders sit on the board.

Once analyzed the linear relationships between variables, we shall proceed to carry out an analysis of the mean difference in order to determine the existence or not of differences between groups of firms according to their ownership structure.

INSERT TABLE 2

The results shown in Table 2 indicate that firms with disperse ownership have a greater number of board members, a larger proportion of outsiders, of independents, number of board meetings commissions. Both governance reform and the literature, as we have pointed out, advocate an increase in these variables in order to maintain tighter control over management. On the contrary, firms with concentrated ownership show a greater percentage of insiders and "dominicales", therefore reducing the importance of the remaining variables. This, as we have hypothesized, is due to the fact that ownership structure itself is defined as a mechanism of interest alignment on account of the control incentive of larger shareholders. These findings are in line with the literature on the subject (Kosnik, 1987; Daily and Dalton, 1992; Judge and Zaithaml, 1992; Li, 1994; Rediker and Seth, 1995; Zahra, 1996, among others), since the lack of interest alignment between shareholders and directors requires and active board of directors as far as control is concerned.

The analysis of differences between firms with ownership concentration and dispersion in reference to board composition and characteristics thus confirms the research hypothesis concerning the substitution effect. These findings show, for the Spanish market, the substitution effect in accordance with the study by Rediker and Seth (1995) for the American market.

INSERT TABLE 3

The evidence in Table 3 indicates that the firms included in the analysis tend to largely adopt dual structures of power (71.1% and 63.6% of firms as opposed to 28.9% and 36.4% respectively). The results, in general, indicate a high concentration of power in the hands of dual presidents. The correlation between variables (R of Pearson) finds no relationship between them, and we cannot therefore confirm the first hypothesis concerning power duality. These results do not support the hypothesis 1 as to the relationship between shareholder dispersion and dual power structures, grounded in Strickland et al. (1996) and Wahal (1996).

Thus, we confirm hypothesis 1, pointing to the existence of a substitution effect between ownership structure and the board of directors, with the exception of the relationships between shareholder concentration and dual power structures.

Composition and characteristics of the board of directors

To test the second hypothesis, we carried out a cluster analysis in order to establish different groups of firms according to the quantitative and qualitative composition of the board. Then we proceeded to carry out an analysis of the mean difference between groups and the number of meetings and the total number of board commissions. On the other hand, and given the fact that power duality has been defined as a dichotomic variable, its relation with the types of firms, obtained by means of chi-squared tests, will be analyzed.

INSERT TABLE 4

Analyzing of firms three groups⁹, the results shown in Table 4 were obtained. Group one is defined as having the largest number of total board members and a majority of independents. The second group shows the lesser number of board members with a majority of insiders and independents, giving rise to a situation of equilibrium between groups with different interests. And lastly, the third group, with an intermediate number of total board members is characterized by having a majority of "dominicales" on the board. These three groups can be regarded as representative of different types of firms according to shareholder concentration: disperse ownership, medium ownership concentration, and firms with concentrated ownership.

INSERT TABLE 5

The results of the analysis of differences presented in Table 5 indicate that boards with a majority of outsiders have a greater number of board commissions and they meet more frequently than boards in a situation of equilibrium or controlled by

"dominicales", showing significant mean differences. As can be observed, boards controlled by outsiders (independents and "dominicales") show larger means for both variables, and we can therefore confirm hypothesis 2: the composition of the board of directors determines its characteristics as to the number of board commissions and meetings.

INSERT TABLE 6

The analysis of the relation between different groups of firms according to board composition and power structure duality indicate that firms included in the sample, no matter which group they belong to, tend to adopt dual power structures, and we encounter no relation between variables. Thus, we cannot conclude that board composition determines firm power structure.

The hypothesis testing concerning whether board composition determines its characteristics partially confirms the hypothesis because, though the number of commissions and meetings can be verified, the duality of power structures cannot.

Governance mechanisms and firm diversification

In the study of strategic diversification, we shall, in the first place, carry out an analysis of mean difference in order to analyze the question of whether shareholder dispersion is a determinant factor of different levels or types of diversification. The effectuation of this analysis is a consequence of the substitution effect found between ownership structure and the board of directors as governance mechanisms. Once this testing is done, we shall proceed to explain this strategy as related to shareholder concentration and the board of directors, in order to discern the contribution of these variables to the explanation of firm performance and diversification strategy.

INSERT TABLE 7

The findings in the above Table show how the entropy index is greater in the case of firms with ownership concentration, and less for firms with disperse ownership. This indicates that ownership-concentrated firms are diversified to a lesser extent than ownership-disperse firms or firms with managerial control. These results, in principle and grounded in the agency theory, confirm the hypothesis that in firms with greater managerial discretion (firms with disperse ownership as opposed to firms with concentrated ownership), the managerial team tends to develop diversification policies in order to attain its own objectives. These results are in accordance with Amihud and Lev (1981, 1999) and Denis et al. (1997, 1999), who, as in our study, base their hypothesis testing on the agency approach.

The study of diversification types (related as opposed to non-related) leads us to the analysis of categorical measurements of diversification

(RUMELT). For this investigation, we carried out qualitative analyses based on contingency tables in order to study the independence or non-independence of the variables.

INSERT TABLE 8

Taking into account the findings in Table 8, we can observe how firms with disperse ownership show a lower percentage of single-sector operations, and a larger percentage for the remaining categories than firms with concentrated ownership. The results obtained concerning type of diversification and the governance mechanism seem to show that, for the measurement used, firms with concentrated ownership are more inclined to develop a strategy of single-sector operations, while those with disperse ownership tend to develop strategies of dominant-sector operations. Although the predominance of these categories for each of the types of firms is clear, it should be pointed out that firms with disperse ownership have a greater tendency to develop different activities, since 85.7% of firms with disperse ownership are grouped in the last three categories presented in the RUMELT variable as opposed to 37.1% of firms with concentrated ownership.

The chi-squared statistics, used for the analysis of dependency between shareholder concentration and the categorical measurement of diversification (RUMELT), indicate that the hypothesis of dependency between variables cannot be accepted. We might therefore conclude stating that although the distributions of firms with disperse ownership is grouped around dominant-sector operations; firms with concentrated ownership do the same around single-sector operations.

Nevertheless, likelihood ratio statistics appear to be significant and indicate the degree of adjustment. The results, therefore, allow for the acceptance of hypothesis 3 that establishes a relationship between ownership structure and the type of diversification strategy. These results might lead one to believe that the problem raised between these units of analysis and the current debate reopened concerning the effects of ownership structure on firm strategy is more a problem of measurements and not of verification of the agency theory as a theoretical basis. This is due to the fact that in Spain important shareholder participation between firms exists, justifying the diversification between groups of firms and not in firms studied in isolation.

INSERT TABLE 9

To carry out the analysis of differences of firm types according to board composition, we have taken the variable obtained in the cluster analysis used to test our second hypothesis as our dependent variable.

The findings indicate a lower entropy index for the case of the majority of independents on the board as opposed to the situation of equilibrium and

majority of "dominicales". Comparing these two groups, it can be observed, as expected, that the means for firms dominated by "dominicales" is greater and, therefore, the degree of diversification is lower than firms in a situation of equilibrium.

The result of the analysis of mean differences does not indicate the existence of significant differences between groups. It should be pointed out that we have carried out a variance analysis *ex-post* between groups, where we find the existence of significant differences between firms with boards dominated by independents and "dominicales", obtaining significant differences between groups for a significance level of 0,1. This confirms that shareholding board members (dominicales") seem to show a greater resistance to firm diversification policies than independent board members. Given that these results have not been related to firm performance, we cannot conclude asserting that these strategic decisions are developed in the interest of shareholders or in the interest of the board of directors.

Grounded in the results presented, we cannot affirm that board compositions characterized by variables representative of control carry out, to a greater or lesser extent, corporate diversification strategies. Boards dominated by outsiders do show differences as to the degree of diversification depending on the type of outsider who dominates the board. We can therefore say that firms with lower degrees of diversification are related to those with boards controlled by shareholders as opposed to those controlled by independents. These results therefore verify the first agency relationship.

INSERT TABLE 10

The analysis of firm type according to board composition and type of diversification strategy indicates that, for the measurement grounded in Rumelt (1974), in the case of a board with a majority of "dominicales", 76.48% of the firms develop diversification strategies in one single sector. At the same time, in the remaining cases, it cannot be said that the majority of the firms tend towards any one of the categories defined. The results to be highlighted are those regarding the case of equilibrium and majority of independents. In the first case (situation of equilibrium) we find greater percentages for the category single-sector, and lower percentages for the remaining categories: dominant, related and non-related diversification.

The analysis of the association between board composition and diversification strategy type shows no relation between them; therefore we cannot confirm the third hypothesis when the active control mechanism is the board of directors.

From the analyses for the study of diversification strategy in relation to shareholder concentration and control by the board, as to its composition, we can point out that we have only obtained results that allow

us to affirm the existence of a relation between firm diversification and ownership concentration.

Finally, we present the relationships between corporate governance and creation of value controlled by diversification strategy. Given that the number of firms grouped in categories Rumelt (1974) is quite low, we have proceeded to re-codify the variable in another referred to as RUMELT2 which takes the value 0 if the firm develops a single-sector strategy or if does not diversify, and it takes value 1 if it develops a dominant-sector strategy, related or non-related diversification, that is, if it develops, to a greater or lesser extent, a diversification strategy.

INSERT TABLE 11

To carry out this study, we have proceeded using a regression analysis so that collinear variables will be eliminated from the model, if the tolerance index considers it advisable.

The results of the analysis confirm that corporate governance has a positive influence on firm performance. For firms that do not develop diversification strategies (RUMELT2=0), related in the above-mentioned analyses to firms with ownership concentration, we find that the control incentive of large shareholders confirms the validity of the control exerted by such shareholders as a supervising mechanism of management actions. These results are in line with those found by Rediker and Seth (1995) and Whidbee (1977) and with our working hypotheses based on Marseguerra (1998). The results found indicate that the variables that define ownership structure have a greater explanatory significance of firm performance than those factors which define the exertion of board control. These results confirm for the Spanish market those found by Denis et al. (1997, 1999) and Amihud and Lev (1981, 1999).

On the other hand, the control variables indicating firm age and size confirm that firm size as a managerial objective is negatively associated with firm value, and firm age is positively related.

For firms that develop diversification strategies to a greater or lesser extent (RUMELT2=1), associated with diffuse ownership and in which the most important control mechanism is the board of directors, the results obtained differ considerably when compared to those which do not develop diversification strategies.

Shareholder concentration is negatively associated with firm performance. These results indicate that the exertion of control by major shareholders does not increase firm value, since, by definition, they are non-existent. This result therefore indicates that the absence of control by major shareholders is negatively associated with the creation of value for the shareholder. In this type of firms the exertion of control by the board provides an active managerial control mechanism through its defining variables. Thus, the proportion of independents,

number of meetings and board commissions as representative control factors of the board have a significant and positive relationship with corporate creation of value. These results, like those obtained for non-diversified firms, confirm for the Spanish market the findings related to the substitution effect (Rediker and Seth, 1995; Whidbee, 1997) and to the effects of shareholder control on firm strategy and performance (Hill and Snell, 1988; Denis et al., 1997, 1999; Amihud and Lev, 1981, 1999).

On the other hand, power duality is significant and positive in the results. Taking into account former studies and analyses of power duality, the majority of firms included in the sample tend to have dual power structures and, considering the fact that the president's holdings exert a positive influence on firm performance, we may conclude pointing out that the positive effect of power duality on the performance of firms that carry out diversification strategies is due to interest convergence. These results are therefore in line with Boyd's (1995) findings and are grounded in interest alignment derived from the shareholding participation of a dual president.

From the results of the regression analysis, we may conclude confirming hypothesis 4 that determines the influence of corporate governance and diversification strategies on firm performance.

Conclusions

This paper aims to analyze the effect that two alternative governance mechanisms- ownership structure and the board of directors- have on firm diversification strategy and the creation of value for shareholders. The consideration of both mechanisms attempts to establish the active governance mechanism as related to shareholder control incentives. This study, based on Rediker and Seth's (1995) work, is justified given the high shareholder concentration found in the Spanish market.

The theoretical grounds, based on the agency theory, allow for the analysis of managerial discretion as a consequence of the separation between ownership and control. Thus and with the objective of finding the determinant factors of board control, we have defined a model of analysis based on Zahra and Pearce's (1989) model to identify the relationships and basic units of analysis.

As to our research methodology, our sample includes 56 firms of a total of 158 susceptible to analysis. Hypothesis testing on this sample indicates high shareholder concentration in the Spanish market, which leads us to conclude that governance reform in Spain is not justified by the separation of ownership and control, but rather, by historical board passivity.

The consideration of two alternating governance mechanisms in the analysis allows us to establish that, in the presence of majority shareholders in the firm, the definition of board control variables, considered in this paper, are less significant than in the case of firms with ownership diffusion. In addition, we find that the

establishment of groups of firms depending on their composition determines the differences between them in relation to meeting frequency and the number of board commissions. Consequently, more outsiders on the board prompt more board control activity such as a larger number of meetings and the creation of board commissions.

Lastly and as to the influence of corporate governance on diversification strategy, we find a clear superiority of shareholder control as opposed to board control. This result, at first sight, can be explained by the substitution effect and to the fact that the number of firms classified as diffuse ownership in our market is quite low. On the other hand, the results seem to indicate that firm diversification is found in industrial groups as a consequence of pyramidal ownership between the firms. Indeed, in the analysis of the integrated model, we find that in firms that do not develop diversification strategies and have been associated with ownership concentration, the most active governance mechanism is shareholder control by major shareholders. Nevertheless, in firms that have more or less developed diversification strategies, the most important explanatory governance mechanism is the board of administration, and these firms are related to ownership dispersion and shareholders who do not exert an active control function.

Footnotes

¹ Definitions

A firm with a disperse ownership structure is one in which there are no major or controlling shareholders. On the contrary, a firm with ownership concentration has major or controlling shareholders and, in addition, these shareholders have incentives to exert an active controlling function.

As to types of board members, insiders are considered to be those members who also hold directive posts, while outsiders are those who are not involved in firm management. Outsiders are subdivided into independents and "dominicales". Independents are considered to be board members who are not associated with any form of firm ownership and who are appointed for reasons related to competence and professional prestige. "Dominicales" are those board members who have a significant participation in firm capital or who represent a large shareholder.

Lastly, a firm is considered to have a dual power structure when the same person holds the posts of president of the board of directors and executive president.

² As pointed out above, in the presence of shareholder concentration, we find shareholder incentives to exert active control over firm management.

³ This relationship is justified by the limited operation of the control market, of the limited capacity of insiders to supervise a dual president, and the reduced probability of direct substitution.

⁵ Ethical code of governance excellence published in February 1998 whose objective is to respond to the demand from the professional sector and the market itself as to questions concerning efficiency, agility, responsibility, and transparency in corporate governance, to attain more credibility and to better defend shareholder interests. This

work is popularly known in Spain as the "Informe Olivencia".

⁶ Spain 1999, Spencer Stuart Index of Boards of Directors.

⁷ The data on firms contained in the two databases used were identical.

⁸ We define the productive specialization ratio as the percentage of the total figure corresponding to the main activity of the firm; that is, to the activity from which the firms obtains the greatest volume of income. We define the ratio relation as the percentage of total income that corresponds to the most important group of related sectors owned by the firm.

Taking into account these ratios, firms are classified in the following categories, using a categorical variable, RUMELT, defined by the following items: (a) Single sector (0), if the RE \geq 95%; (b) Dominant sector (1), if 70% \leq RE < 95%; (c) Related diversification (2), if RE < 70% and RR \geq 70% and, Non-related diversification (3), if RE < 70% and RR < 70%.

⁹ Three groups of firms have been analyzed, introducing four variables in the analysis: number of board members, proportion of insiders, proportion of independents, and proportion of "dominicales". The differences between groups are established according to the four variables used in the analysis.

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Appendices

FIGURE 1: Basic model for analysis

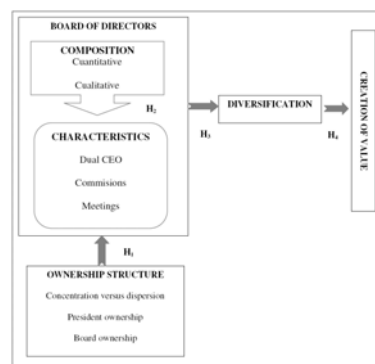


TABLE 1: Correlations between larger shareholders and board of directors

	Large Shareholder	Board Ownership	President Ownership
Insiders	0,216 (0,120)	0,301** (0,028)	0,316** (0,033)
Outsiders	-0,216 (0,120)	-0,301** (0,028)	-0,316** (0,033)
"Dominicales"	0,150 (0,287)	-0,114 (0,422)	-0,176 (0,248)
Independents	-0,252 (0,064)	-0,167 (0,223)	-0,006 (0,966)
Board meetings	-0,322** (0,029)	-0,193 (0,198)	-0,287* (0,072)
Commissions	-0,482*** (0,000)	-0,237* (0,084)	-0,261* (0,073)

* P< ,10

** P< ,05

*** P< ,01

TABLE 2: Mean differences between ownership concentration and board composition

	Type of firm	N	Mean	Std. Dev.	Levene		T-Test	
					F	Sig.	t	Sig.
Board of Directors	Concentration	11	14,72	4,90	0,338	0,563	3,055***	0,003
	Dispersion	45	10,53	3,87				
Insiders	Concentration	11	17,06	9,25	6,855	0,012	-1,993*	0,055
	Dispersion	42	24,80	17,49				
Outsider	Concentration	10	82,93	9,25	6,855	0,012	1,993*	0,055
	Dispersion	45	75,19	17,45				
Independents	Concentration	10	51,43	23,17	0,834	0,365	1,830*	0,073
	Dispersion	45	38,29	19,97				
Dominicales	Concentration	10	25,20	27,28	0,820	0,369	-1,352	0,183
	Dispersion	42	36,57	23,09				
Board meeting	Concentration	9	10,88	3,14	0,523	0,473	2,316**	0,025
	Dispersion	37	7,91	3,51				
Commissions	Concentration	10	2,00	1,05	0,001	0,978	2,555**	0,014
	Dispersion	44	1,09	1,00				

* P< ,10 , ** P< ,05 , *** P< ,01

TABLE 3: Ownership concentration and dual CEO

Type of firm	Power				
	Dual CEO	%	No dual CEO	%	R of Pearson
Concentration	32	71,1	13	28,9	0,065
Dispersion	7	63,6	4	36,4	(0,636)

TABLE 4: Cluster Analysis of board composition

	GROUP OF FIRM		
	1	2	3
Board of directos	12,25	9,62	11,52
Insiders	11,23	45,19	19,20
"Dominicales"	22,24	13,72	54,52
Independents	62,36	41,09	26,28

TABLE 5: Mean difference between the cluster analysis of board composition and the board characteristics

	Mean	Std. Dev.	Levene	Sig.	F	Sig.
COMMISSION						
Majority of independents	1,8750	1,1475				
Equilibrium	0,5385	0,8771	3,735	0,031	7,368***	0,002
Majority of "dominicales"	1,1429	0,7928				
BOARD MEETINGS						
Majority of independents	10,5000	2,7942				
Equilibrium	6,4515	2,6018	2,984	0,062	4,824**	0,013
Majority of "dominicales"	8,2941	4,2392				

** P< ,05

*** P< ,01

TABLE 6: Chi-square test between dual CEO and board composition

	Majority of independents	Equilibrium	Majority of "dominicales"	Chi-square
DUAL CEO				
0	6	3	5	1,322
1	10	10	18	(0,516)

TABLE 7: Mean differences between ownership concentration and degree of diversification

Group of firm		Mean	Std. Dev	Levene		T Test	
				F	Sig	T	Sig.
Degree of diversification	Dispersion	389,65	37,00	1,310	0,259	-2,146 ^{ns}	0,038
	Concentration	429,16	48,78				

** P< ,05

TABLE 8: Frequency and Chi-square test between type of diversification and ownership structure

	Dispersion	%	Concentration	%
Single	1	14,3	22	62,9
Dominant	4	57,1	7	20,0
Related	1	14,3	2	5,7
unrelated	1	14,3	4	11,4
Chi-square of Pearson			6,226	
Likelihood ratio			6,377*	
Linear association			2,166	
N			42	

TABLE 9: Anova test between degree of diversification and board of directors

		Mean	Std. Dev	Levene		T Test	
				F	Sig.	T	Sig.
Degree of diversification	Majority of independents	404,51	55,54				
	Equilibrium	420,70	46,61	0,508	0,606	1,565	0,222
	Majority of "dominicales"	435,31	44,27				

TABLE 10: Frequency and chi-square between type of diversification and board of directors

Board of Directors	RUMELT			
	Single	Dominant	Related	Unrelated
Majority of independents	5 (35,72%)	5 (35,72%)	2 (14,28%)	2 (14,28%)
Balance	4 (44,45%)	3 (33,33%)	1 (11,11%)	1 (11,11%)
Majority of "dominicales"	13 (76,48%)	2 (11,76%)	0 (0,00%)	2 (11,76%)
Chi-square	0,430 (0,934)		6,986 (0,322)	
Likelihood ratio	0,455 (0,929)		8,244 (0,221)	
Linear association	0,138 (0,711)		2,564 (0,109)	

TABLE 11: Regresión to integrated model

VARIABLES	Undiversification					Diversification
	Regr. 1	Regr. 2	Regr. 3	Regr. 4	Regr. 5	Regr. 1
Constant	(-1,891)	(-2,174 [*])	(-2,307 [*])	(-2,860 ^{***})	(-4,597 ^{***})	(-2,169)
Large Shareholder	0,856 (2,013)	0,855 (2,304 [*])	0,824 (2,428 [*])	0,933 (3,093 ^{***})	0,841 (2,908 ^{***})	-0,259 (-3,974 [*])
Board ownership	0,054 (0,206)					1,326 (34,896 ^{***})
President ownership	0,870 (2,962)	0,858 (2,3416 ^{***})	0,875 (3,787 ^{***})	0,934 (4,402 ^{***})	0,948 (4,455 ^{***})	0,136 (6,396 ^{***})
CEO dual	0,125 (0,507)	0,537 (0,620)				0,393 (18,331 ^{***})
Independents	0,661 (0,951)	0,694 (1,174)	-0,684 (1,250)	0,956 (2,288 [*])	1,129 (2,945 ^{***})	0,157 (8,248 ^{***})
Meetings	0,262 (0,711)	0,216 (0,842)	0,187 (0,804)			0,230 (3,689 [*])
Commissions	1,026 (1,881)	1,046 (2,233 [*])	1,102 (2,607 ^{***})	1,297 (3,862 ^{***})	1,110 (3,918 ^{***})	0,662 (14,200 ^{***})
Strategy commission	-0,272 (-0,693)	-0,285 (-0,842)	-0,282 (-0,901)	-0,310 (-1,028)		-0,587 (-15,081 ^{***})
Age firm	0,411 (1,783)	0,433 (2,444 [*])	0,460 (2,923 ^{***})	0,462 (3,029 ^{***})	0,517 (3,602 ^{***})	0,257 (11,788 ^{***})
Size firm	-0,646 (-1,312)	-0,654 (-1,528)	-0,654 (-1,650)	-0,740 (-2,000 [*])	-0,442 (-1,912 [*])	-0,417 (-16,297 ^{***})
F	2,828	4,085 [*]	5,255 ^{***}	6,197 ^{***}	6,875 ^{***}	639,769 ^{***}
R ²	0,912	0,911	0,904	0,892	0,873	1,000
R ² Ajust.	0,590	0,688	0,732	0,748	0,746	0,998

^{*}P< ,10^{**} P< ,05^{***} P< ,01