

The Board's Attributes and Their Influence in Company's Performance.

A Review over the Recent Literature

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Abstract - This article provides a discussion supported on the review of the recent literature that analyses the relationship between board's attributes and the company performance. Furthermore, we discuss the methodology used and identify its limitations. Finally, we present some problems to solve these limitations and show other interesting topics for future research.

Keywords - Board's attributes; board's characteristics; company performance; corporate governance; boards of directors.

1. Introduction

The beginning of the twenty-first century started with some scandals in important world companies, like the examples of Enron and WorldCom, among many other situations. In general, the stock prices of these companies were very high and suddenly they have fallen down.

As said by Berk & DeMarzo (2007) the reasons behind these bankruptcies are associated with fraud that derived from the manipulation of accounting statements. These situations impose some questions like the following one: Why the board of directors did not do anything?

Good governance increases the value of the firm. However, bad governance has a high opportunity cost.

Corporate governance is the system by which companies are directed and controlled in order to prevent fraud. At the same time, this topic is about possible conflicts of interests between the different stakeholders of a company. One of the most known conflicts of interests is between the managers and the investors which result from the separation between ownership and control.

In order to align these interests, some types of incentives exist for cases of good behavior and punishments for the cases of bad behavior. The owning of stocks of the company is an example of incentive. The fire of a manager for poor performance can be presented as an example of punishment.

According to Berk & DeMarzo (2007) there are three types of directors: inside, gray and outside. Inside directors are for example the employees who have a direct relationship with the firm. Gray directors are for example the bankers who have a business relationship with the firm. Finally, outside directors are all the other directors.

One topic that is frequently studied by researchers is related with the study of the best type of directors. Weisbach (1988) study proved that there is a more powerful relationship between prior performances and the probability of managers to be fired if the board is composed in majority by outside directors. However, this topic is very complex and very difficult to explain because there are a lot of other aspects that may affect the performance of the companies.

Another topic that is very commonly analyzed about boards is the influence of their size on the company's performance. Yermack (1996) argued that board size is inversely related with firm value. He used a sample of 452 large U.S. industrial corporations to prove that.

2. Board of Directors' Theoretical Perspectives

In general, there are four main views related to the functions the board of directors should undertake

(Zahra & Pearce II (1989)):

- legalistic perspective,
- resource dependence,
- class hegemony,
- agency theory.

These perspectives have a lot of differences among them, for example in terms of the board characteristics that can influence the company performance. Moreover, every perspective considers a different role taken by the board. Even the theoretical origins are very distinct. For example, the agency theory derives from the area of economics and finance and the “legalistic perspective” proceeds from corporate law.

The first perspective - the legalistic - says that boards can influence the performance of the companies by doing their legally mandated responsibilities. This theory says that the board is responsible for selecting the CEO and monitoring its own performance. In this perspective, there is no interference by the board in the day-to-day operations. Related to the attributes that are relevant to the director’s performance, this perspective emphasizes four attributes: board composition, characteristics, structure and process.

The second perspective - “resource dependence” - argues that the board can help the firm regarding its general environment. According to Zahra & Pearce II (1989), this approach also takes into consideration the fact that boards can provide favorable interorganizational relationships. Moreover, this perspective includes another aspect: the strategy, which gives a wider view compared to the legalistic perspective.

Thirdly, there is the perspective related to “class hegemony” that in general is closer to the Marxist sociology. This perspective claims that boards are a way to keep the actual capitalist elite power. At the same time, according to this perspective, the CEO has much power and it can minimize the power of the board.

Finally, the agency theory perspective considers the board as the ultimate system of corporate control. This theory considers that with too much liberty the executives will have an incentive to pursue their own

objectives, which can be different from the objectives of the shareholders.

One important difference between agency theorists and class hegemony academics is that the first uses in general market measures and the second uses mainly accounting measures.

3. The Board’s Attributes and Their Influence in the Company Performance

Taking into consideration the four theoretical perspectives analysed before there are four main board attributes that influence the company performance:

- composition,
- characteristics,
- structure,
- process.

As said by Zahra & Pearce II (1989) these four attributes are tremendously correlated and do not show the entire picture about the boards of directors. However, these four attributes represent an important part of the research that is made about the relationship between the boards and the company performance.

According to Zahra & Pearce II (1989) the board composition attribute incorporates the different types of directors and the size of the board. In the case of characteristics, they integrate the director’s background and its personality. Thirdly, the board structure attribute consider for example the types of committees and the sharing of information among them. Finally, the process attribute is about the ways the board makes its deliberations.

Accordingly, the objective of this research is to discuss the recent literature developments in terms of the relationship between the boards of director’s attributes and the company performance.

In order to achieve this objective a group of well-known literature databases was used in order to find the most relevant articles, namely: Web of Science, Scopus, B-on and Proquest. The results obtained present 15 articles of major interest to analyse and to discuss.

The analysis among the various articles involved the comparison of the following aspects (table 1): dimensions that are analyzed, organization performance criteria, control variables, sample, analytical approaches and major findings.

In terms of the dimensions that are analyzed (table 1), most of the articles try to explain the impact of board size in the company performance (in this case 12 of the total number of articles). The second most analysed dimension is the board composition (with 6 articles). Other topic of greater attention is the board independence (with a total of 5 articles).

Now considering the organization performance criteria (dependent variable) the most commonly used measure is the ROA (return on assets) that appears in 7 articles. Others commonly used measures of performance are ROE and Tobin's Q.

In the majority of the cases the analytical approach that is used is the regression complemented with Pearson correlations. However, there are some articles that use more powerful methods, such as two-stage least square or generalized method of moments.

With the application of the regression most of the authors choose to include control variables in the regression model. The majority decided to control the size of the firm using the natural log of assets. Some had used a ratio to control the effect of leverage dividing the total debt by the total assets.

In terms of the sample used in the studies the majority of the authors appealed to companies from a single country and that were publicly listed.

Furthermore, the major findings showed that smaller boards and more independent boards are in general good for the company's performance. However, we need to be aware that not all the articles achieve these results, what means that there are contradictions when the results are compared.

4. Discussion

As is common with the majority of the empirical studies in corporate governance there are several econometric problems. The most relevant problems were identified by Börsch-Supan & Köke (2002) as follows: endogenous variables considered wrongly as exogenous variables; the use of a convenience sample; some of the variables have large errors and some of the databases have a lot of errors.

Firstly, in order to avoid the problem of endogeneity Börsch-Supan & Köke (2002) recommend to use panel data and at the same time to take into consideration the unobserved firm characteristics. Regardless, to the articles analyzed not all had used panel data what can be a problem in order to validate the results. Moreover, not all had considered in careful way the unobserved part of the model.

Secondly, the sample selection bias also occurs in the majority of the articles, because the samples were composed only by listed companies. We have to remember that in most of the cases the listed companies have good performances which will affect the dependent variable of the model, normally a measure of performance.

Thirdly, Börsch-Supan & Köke (2002) suggest that all the studies should include data about shareholder type, debt structure, composition, market power and takeover activity. The analysis of the literature showed that the majority of the regressions do not include the market power neither the takeover activity factors. The other three were in general included in the models.

Our analysis also detected that a great part of the studies involved data from a single country confirming the scarcity of multi-country level studies.

Moreover, there is an excessive focus in the analysis of the effects of the board's characteristics in company performance when compared to the studies that analyze the influence of board's member's characteristics in the company performance.

5. Avenues for Future Research

The analysis of the recent empirical studies about the relationship between the board's attributes and the company performance showed that some of the typical problems remained. So, it is clear that in the future the researchers need to be more careful about the inclusion of the necessary control variables in order to have good estimation results.

Moreover, it is necessary to produce wider studies which may include various countries in the analysis. We have for example the recent article from Black, de Carvalho, Khanna, Kim, & Yurtoglu (2013) that shed some light on this issue.

The choice of the dependent variable has shown also several limitations and the use of accounting measures of performance or the use of market measures of performance do not guarantee reasonable results. So, it is necessary to combine different types

of performance measures in order to obtain better results.

Table 1. Board Attributes and Corporate Financial Performance

Study (Year)	Dimensions	Performance Criteria	Control Variables	Sample	Analytical Approaches	Major Findings
Kim (2005)	Board network density Board external social capital	ROA	Lagged ROA Age of the firm Log (assets) Debt / equity ratio Board age Group affiliated company dummy Board education level Board average age Board size	199 publicly traded Korean companies (1990-1999)	GLS random effects model	Firm value is positively influenced by a moderate level of board network density. Firm performance is positively affected by member's elite school networks.
Ghosh (2006)	Board size Proportion of non-executive CEO remuneration	ROA PERF (arithmetic average of RoA, return on sales (RoS) and return on equity (RoE)) Adjusted Tobin's Q (ratio of market value of equity to the book value of debt)	Dummy variables to control for firm ownership (public versus private) Logarithm of size of board of directors Logarithm of total assets netted for depreciation Cash flows divided by total assets Logarithm of number of years since incorporation Leverage = (total assets – equity capital) / total assets Percentage share price change Dummy variable indicating uncertainty in the economic environment	127 listed manufacturing firms in India for 2003 (classified in nine industries).	Regression	Larger boards tend to diminish the firm performance. Positive effect between the number of non-executive directors and firm performance. The compensation of the CEO has a relevant effect on the company performance.

Table 1. Board Attributes and Corporate Financial Performance (continued)

Study (Year)	Dimensions	Performance Criteria	Control Variables	Sample	Analytical Approaches	Major Findings
Juras & Hinson (2008)	Board independence Board size	Net interest margin ROA ROE Efficiency ratio	Natural log of assets	1440 bank-year observations (1999-2003)	OLS regressions	The results obtained contradict the hypotheses elaborated under the agency theory.
Dunn & Sainty (2009)	Shareholder orientation Board independence Firm risk	CSP Score (retrieved from the Canadian Social Investment Database)	EPS ROE Log of total assets	104 Canadian firms	Regression Pearson correlation	Board independence is positively associated with social performance but shareholder orientation is not. Exists a positive relationship between social performance and financial performance. The same happen to the case of debt.
O'Connell & Cramer (2010)	Board size Smaller firms Board composition	ROA Financial Q (Sum of market capitalization plus long and short-term debt over the book value of total assets) RET (The one-year raw stock market return.)	Proportion of the company owned by the directors	44 Irish non-financial firms with significant data listed on the Irish Stock Exchange in 2001.	Regression Two-stage least square	Board size shows a relevant negative relationship with firm performance For the case of smaller firms the relationship between board size and firm performance is less negative

Table 1. Board Attributes and Corporate Financial Performance (continued)

Study (Year)	Dimensions	Performance Criteria	Control Variables	Sample	Analytical Approaches	Major Findings
Qianbing & Pingping (2010)	CEO age CEOs' education levels Non-executive director proportion	The quantity of company patent claims	Company total assets Establishing time	318 listed companies in Shenzhen stock market - 2009	Regression analysis	Company innovation performance is positively correlated with CEO education level
García-Ramos & García-Olalla (2011)	Board size Board independence CEO Duality Board Activity	Market-to-book value ratio as the proxy for Tobin's Q	Lag value of Tobin's Q Natural logarithm of the total value of assets Quotient between total debt and assets Year factors Country factors Industry level factors	77 family businesses from Spain, Portugal and Italy.	Two Steps System Estimator of the Generalized Method of Moments (GMM)	Smaller and more independent boards do not conduce to better firm performance In the case of nonfounder-led family firm the performance is positively affected by the board size. For the case of founder-led family businesses the board has a negative effect on performance.
Ferrer (2012)	Board size Board independence Duality of the Chairman's role and the Chief Executive Officer's role Multiple directorial positions Managerial ownership	Share price – closing share price of the stock at the end of the calendar year. Return on equity (ROE)	Log of the company's total assets Total liabilities divided by total assets Length of time that an entity's shares have been traded in the Philippine Stock Exchange (PSE) up to December 31, 2009.	29 listed property companies in the Philippines	Regression ANOVA	The firm performance is positively influenced by the managerial ownership.

Table 1. Board Attributes and Corporate Financial Performance (continued)

Study (Year)	Dimensions	Performance Criteria	Control Variables	Sample	Analytical Approaches	Major Findings
Turki & Sedrine (2012)	Ownership concentration Managerial ownership Board size Outside directors Board leadership structure	Market-to-book - natural logarithm of the market value of equity divided by the book value of equity.	Natural logarithm of the book value of total assets. Ratio of total debt to total assets. Ratio of net working capital to the book value of assets. Beta coefficient of the stock.	23 non-financial companies listed on the Tunisian Stock Exchange (TSE)	Regression Two-stage least squares (2SLS)	Presence of endogeneity plus a two-way causality in the case of ownership variables and market to book performance.
Ghabayen (2012)	Audit committee size Audit committee composition Board size Board composition	ROA – earnings before tax divided by total assets.	-	102 non-financial listed companies from the Saudi Market (Tadawul)	Regression	Firm performance is not affected by audit committee size, audit committee composition and board size.
Al-Matari, Al-Swidi, Fadzil, & Al-Matari (2012)	CEO duality CEO tenure Audit committee size Board size Board composition	ROA	Natural log of total assets Ratio of total liabilities to total assets	136 non-financial firms (2009) – Kuwait stock exchange	Multiple linear regression analysis	Firm performance is negatively influenced by the effects of CEO tenure and leverage.

Table 1. Board Attributes and Corporate Financial Performance (continued)

Study (Year)	Dimensions	Performance Criteria	Control Variables	Sample	Analytical Approaches	Major Findings
Ferrero-Ferrero, Fernández-Izquierdo, & Muñoz-Torres (2012)	Board size Independent board composition Board fees Chairman duality Level of debt	Earnings before extraordinary items and after taxes to total assets (EBEAT)	Natural log of total assets Dummy variable that takes in consideration the differences of the financial industry when comparing to the others sectors. Temporal dummies for different years	Standard & Poor's 500 index firms (2005-2008)	Three-stage least squares estimation method	The economic period affect the efficiency of the board.
Shukeri, Shin, & Shaari (2012)	Managerial ownership Board size Board independence CEO duality Ethnic diversity	ROE	-	300 Malaysian public listed companies	Multiple regression analysis Correlation analysis	The firm ROE is positively affected by the board size and ethnic diversity. Board independence affects negatively the ROE.
Y. A. Al-Matari, Al-Swidi, Fadzil, & Al-Matari (2012)	Board composition CEO duality Board size Audit committee independence Audit committee activity Audit committee size	Tobin's q	The book value of the total assets of the company. The percentage of total liabilities to total assets.	146 non-financial companies in Saudi Stock Market (TADWAUL) - 2010	Pearson correlation Multiple linear regression	In general the results contradict the agency theory which emphasizes that boards of directors tend to diminish the agency cost.

Table 1. Board Attributes and Corporate Financial Performance (continued)

Study (Year)	Dimensions	Performance Criteria	Control Variables	Sample	Analytical Approaches	Major Findings
Liang, Xu, & Jiraporn (2013)	Board size Board composition Board functioning	ROA ROE Operating income minus operating expenses/total assets Problem loans/total loans Natural log of total problems loans Net charge-offs/total loans Natural log of (gross charge-offs minus recoveries) Net charge-offs/total loans Natural log of (gross charge-offs minus recoveries)	Natural log of total assets Total loans/total assets Equity/total assets Dummy variable equal 1 if a bank has been listed at the end of the year and 0 otherwise Dummy variable equal 1 if a bank has been listed at the end of the year and 0 otherwise Percentage of shares held by the largest shareholders if the largest shareholder is government or government agency Percentage of shares held by the largest shareholders if the largest shareholder is a foreign investor Percentage of shares held by the largest shareholders if the largest shareholder is a private investor Herfindahl index of shareholdings of the second to tenth largest shareholders Natural log of weighted average GDP per capita of cities that a bank's branches are located	52 Chinese banks (2003-2010)	Regression	Bank performance is positively influenced by the ratio of independent directors. Bank performance is negatively influenced by the board size.

Finally, no one of the classical corporate governance theories fully explains the major issues involved in this area, and so there is a need to develop a broader theory.

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