



## **THE IMPACT OF BOARD COMPOSITION ON FIRMS' PERFORMANCE: A META-ANALYTIC REVIEW**

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**Abstract.** The study examined the impact of board composition on firm's performance based on the agency theory. Through meta-analysis, the study reveals systematic relationships between board composition and four variables of firm's performance. The result predicts support the agency theory on the impact of board composition on firm's performance. Since failure to observe the theory creates a potential conflict of interest between managers and shareholders. The study suggested that policymakers should reconsider the size of the composition of the board of a company since it adds up to cost than to performance.

**Keywords:** meta-analysis; board composition, performance, ownership structure

**JEL codes:** M11, M50

### **1. Introduction**

Many results from academic research studies centres on an inadequate representation of outside directors as a likely explanation for boards' failure to fulfil their monitoring role (Finkelstein and Hambrick 1996). According to the findings of Johnson, Daily & Ellstrand (1996), a key recommendation from the agency theory is that any effective board composed of many outside directors. This is because there is the perception that it is unlikely for inside director to monitor the activities of the CEO actions effectively due to their tie with the firm which makes them beholding to the CEO (Patton and Baker 1987). However, according to Baysinger and Hoskisson, (2012) there are many numerous benefits having a representation of inside directors this is because the inside directors have directors' superior information enables them to better evaluate complex decisions the firm has to make.

Many empirical studies have been produced on the issue of whether board composition matters, one section of research has examined the impact of board composition on firm

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performance, however, the result has been mixed and inconsistent (Dalton, Daily, Ellstrand and Johnson 1998). In relation to these results of mixed and inconsistent findings, several researchers have conducted meta-analytic reviews on the relationship between board composition and a firm's financial performance. These reviews provide little evidence of a systematic relationship (Rhoades, Rechner and Sundaramurthy 2000). The other section of research explained that it is prudent to examine the discrete decisions that involve a potential conflict of interest between management and shareholders (Sundaramurthy 2000). Moreover, a company's financial performance is influenced by a multitude of endogenous and exogenous factors beyond the composition of its board (Kosnik 1987). Due to uncertain findings in the extant research, the purpose of the study is to use meta-analysis decision whiles examine whether a systematic relationship exists between board composition and four variables that determine firms performance.

### ***Agency theory and firms performance***

The theory rest on three basic assumptions about agents and principals underlie agency theory: Both agents and principals are assumed to be (a) rational and (b) self-interested, whereas the agent is assumed to be (c) more risk-averse than the principal (Jensen and Meckling 1976). In instances there is a conflict of interest between the agents and principals, it is likely to select self-serving actions at the expense of the latter's welfare (Fama 1980). One line of agency theory, the positivist stream, has focused on the principal-agent relationship between shareholders and top managers of publicly traded, widely held corporations. This stream of research identifies situations in which shareholders' and managers' goals are likely to diverge and examines mechanisms that can mitigate managers' self-serving behaviour (Eisenhardt 1989).

### ***Outside Independent Directors and firm's performance***

It is assumed that Independent non-executive directors from outside the firm may not have the material interest of the firm at heart. Fields and Keys (2003) explained that those independent directors are appointed based. They influence effectively the board's decisions and ultimately add value to the firm. Independent directors are interested in the responsibility and monitor firm's financial performance and plays a critical role in risk management of the firm. They questions information asymmetry an make a good recommendation on executives compensation and dismissal of CEO following poor performance (Hermalin and Weisbach 2003). As practically of appointing independent directors are neither employees of the company, nor have they any business relationship with the firm (Hulbert 2003). For the effective role of independent director, their appointment must be transparent and at arms' length. In contrast, here are controversies of the questions of the independence of the appointment. It is possible that independent directors are known to the CEO or other inside directors prior to their appointments. There are instances where the new outside board

members who are proposed by inside board members may have personal relationships with them (Finkelstein and Hambrick 1996).

However, outside independent director has challenges and limitations. Nicholson and Kiel (2007) argue that “inside directors live in the company they govern, they better understand the business than outside directors and so can make better decisions”. Besides, a lack of day to day inside knowledge by the independent outside director reduces the control role of the independent directors in the firm, and that the independent directors may fail to perform because of appropriate support by the inside directors (Cho and Kim 2007). The values of outside independent directors are questionable as they may not have what it takes to execute their assigned tasks in that they are part-timers and do not have inside information about the firm. (Brennan 2006). The following hypothesis is proposed: *H1: there is a positive relationship between outside independent director and firms' performance.*

### ***Board size***

Many renowned researchers such as (Linck et al. 2008) have examined board size. Coles et al. (2008) explained that the impact of board size of board size on performance may differ for different types of firms. The size of the board is not only a dependent on characteristics of the firm but also vary from one country to the other. It is believed that large size board do not effectively work well but this differs according to the institutional and legal environment (Franks et al. 2001). UK board size and structure is not determined by the costs and benefits of monitoring, although it is determined by advisory needs (Guest 2008). Therefore, although larger UK firms have larger boards (Guest 2008) our evidence suggests that this is a suboptimal rather than optimal outcome, whereby many large firms could improve performance by moving to a smaller board size. The following hypothesis is proposed: *H2: there is a positive relationship between board size and firms' performance.*

### ***CEO duality***

CEO duality means one person practising and serving the position of both a firm's CEO and board chair (Finkelstein and D'Aveni 1994). According to Fernando (2007) combining leadership structure is an unsuitable manner to design the most powerful relationships in an organization. Therefore, it is important to separate the positions of chairman and CEO. Combined ownership structure encourages CEO entrenchment and leads to opportunistic and ineffective behaviour (Rashid 2008). It is appropriate to separate the two positions due to the need to attract external finance (Suryanarayana 2005). Chairman becomes less powerful, more symbolic and ceremonial than the position of CEO when the CEO takes a dual position. With duality, it increases accountability and ensures the shareholder's objectives are given due weight (Baxt, Ramsay and Stapledon 2002). About 70-80 percent US corporations adopted CEO duality where board leadership structure is combined with the roles of chief executive officer (CEO) and chairperson (Rhoades et al., 2001). According to the submission of Zardkoohi (2005), corporate governance practice in Europe separates the CEO and

chairperson, while only 10 percent of UK publicly-listed companies combine these two roles. The following hypothesis is proposed: *H3: there is a positive relationship between CEO duality and firms' performance.*

### ***Ownership structure and firm performance***

Zeitun and Tian (2007) explained that "Ownership structure and concentration are considered as important factors that affect a firm's health." they found a positive relationship between return on assets (ROE) in Jordan. Kapopoulos and Lazareto (2006) found that higher firm profitability requires a less diffused ownership. Similarly, Jiang (2004) examined the correlation between ownership structure and firm performance among Chinese listed companies as a sample, and concluded that higher ownership concentration causes lower firm profitability. Wei and Geng (2008) explain that state-shareholders and concentrated ownership of listed companies cause incompleteness and ineffectiveness of corporate governance. Sun and Tong (2003) examined the performance changes of 634 equities listed in Shanghai stock exchanges and Shenzhen stock exchanges from the year 1994 to 1998 and find that state ownership has a negative impact on firm performance. The following hypothesis is proposed: *H4 there is a positive relationship between ownership structure and firms' performance.*

## **2. Method Sample**

The research acquired the data and tested the research hypotheses developed from published empirical studies that reported a relationship between board composition and firm performance and any of the four variables that affect firm performance. Studied literature that reported a relevant correlation between the variables was included in the meta-analysis. The researcher used computer-aided searches of the ABI/Inform, Social Science Index, and Journal Storage (JSTOR), Web of Science databases to identify relevant studies. As well as reference lists of studies identified earlier, and cited them. The study ended up with 25 studies with 67 samples (N = 26,230).

Several of these studies include multiple samples that stem from multiple indicators of firms' performance and different measures of board independence. To analyzed these samples separately researchers divided the sample into four subgroups according to the four critical variables of interest. The number of studies, sample size, and the number of samples included in each subgroup are presented in table 1. The study employed the meta-analyses for this research according to guidelines recommended by Hunter and Schmidt (1990) and used the Comprehensive Meta-Analysis software (Borenstein & Rothstein, 2000) to analyze the data.

To procure the observed correlation-weighted mean and to calculate the observed standard deviation, each correlation obtained from individual studies are weighted by the sample size used in the original study. The total variability across the individual correlations may stem from true variation in the population or statistical artifacts such as sampling error, reliability,

and range restriction (Hunter and Schmidt 1990). Lacking data on potential artifacts, we corrected for sampling error and used a conservative reliability estimate of 0.8. An indicator for a significant relationship is obtained when zero is not included within the 95% confidence interval (Hunter and Schmidt 1990).

Table 1. Studies included in the four meta-analyses

Wang, Lim (2008)	Becker-Blease (2011)
Bebchuk, Grinstein (2005)	Deutsch (2005)
Balkin, Markman, Gomez-Mejia (2000)	Wiesenfeld, Wurthmann, Hambrick (2008)
Estrada (2004)	Humphrey-Jenner (2013)
Bebchuk, Fried (2004)	Bergh, Fairbank (2002)
Capezio, Shields, O'Donnell (2011)	Wang, Barney (2006)
Minneapolis, Fong (2010)	Lee, Madhavan (2010)
Hamilton, Nickerson (2003)	Chakraborty, Sheikh, Subramanian (2007)
Kim, Mahoney (2010)	Wowak, Hambrick, Henderson (2011)
Henderson, Miller, Hambrick (2006)	Simsek (2007)
Wolfen (2011)	Tuggle, Sirmon, Reutzel, Bierman (2010)
Berrone, Gomez-Mejia (2009)	Wan, Hoskisson (2003)
	Borenstein & Rothstein (2000)

Source: own work

### 3. Results

The results of the meta-analyses of the percentage of composition of board of directors and each of the four variables were presented in table 2 and 3.

#### *Outside director and firm's performance*

Hypothesis 1 predicted a positive relationship between the percentage of outside directors and companies performance. However, no systematic relationship was found between the two variables. The corrected mean correlation estimate is 0.5, but the 95% confidence interval includes zero; therefore, there is no true relationship between the two variables. The analysis is based on samples from studies (N = 5,764). Outside executive director and firm's performance.

#### *Board size and firm's performance*

Hypothesis 2 predicted a positive relationship between the percentages of board size and expressed as a ratio of firms performance. However, to this prediction, the results indicate a systematic negative relationship between these two variables. The corrected mean correlation estimate is - 0.7, and the 95% confidence interval does not include zero. This result is based on three samples from three studies (N = 6,235).

#### *CEO duality and firm's performance*

Hypothesis 3, which predicted a negative relationship between the percentages of CEO duality the land level of firms' performance, was not supported. The results, based on 13 samples obtained from 12 studies (N = 3,830), indicate a positive systematic relationship. The corrected mean correlation estimate is a modest 0.3, and zero is just on the lower boundary of

the 95% confidence interval, indicating that the population value of the relationship under consideration is negative.

### ***Ownership structure and companies performance***

Ownership structure. Contrary to the prediction of Hypothesis 4, which posits a positive relationship between the percentage of level of ownership structure and a firm's performance, the results here indicate a positive systematic relationship between these two variables. The corrected mean correlation estimate is 0.5, and the 95% confidence interval does not include zero. This result is based on samples of studies (N = 8,228).

Table 2. Summary of Predictions and Results on the Relationship Between the board composition and firms' performance.

Variables	Predicted direction	Actual result	Relationship
Outside Director (H1)	(+)	(-)	(-)
Board Size (H2)	(+)	(-)	(-)
CEO duality (H3)	(-)	(-)	(-)
Ownership (H4)	(-)	(+)	(+)

Source: own work

Table 3. The Relationship between the Percentage of composition of board and Firms' performance.

Variables	Outside Director	Board Size	CEO duality	Ownership
Sample size	5,764	6,235	60,038	8,228
No. of studies	5	7	6	7
No. of samples	12	15	19	21
Observed R	0.7	-0.6	0.3	-0.05
Occurred R	0.5	-0.9	0.6	0.8
Observed SD	0.9	0.7	0.8	0.5
Corrected SD	0.8	0.8	0.1	0.6
90% Credibility interval	-0.9	-1.24	0.4- 0.7	0.2-0.3
95% Confidence interval	0.87-0.91	0.65-0.22	0.56-0.93	-0.71

Source: own work

## **4. Discussion**

The study evaluated the impact of board composition and other variables that contribute to and firms performance this are issues that lead to a conflict of interest between managers and shareholders, and whether the systematic relationships found are consistent with the predictions of positivist agency theorists. The results provide evidence for the relationships between board composition and four variables examined. For the most part, however, these relationships are not in the direction that was predicted, based on positivist agency theory.

## 5. Conclusion

The results of the meta-analyses conducted are essential to corporate governance research and practice. The study examined two sections. The first section has to do with the impact of the composition of the board and the section has to do with the impact of the composition of board on the firm's profit. The findings of the study's results suggest that the latter stream warrants further exploration. A relationship was found between board composition and firm's performance and it is the issue in which shareholders and managers' interests potentially diverge. The relationships found, provide a strong support to the predictions based on positivist agency theory. The study suggested that policymakers should reconsider the size of the composition of the board of a company since it adds up to cost than to performance.

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