

## BOARD COMPOSITION AND FIRM PERFORMANCE: A LITERATURE REVIEW

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### *Abstract*

*This paper discusses the empirical studies investigating the association between board composition and organizational outcome. The board composition is the most important attribute of the board institution as such a composition determines board's characteristics, structure and process. The paper explores the motivation and contribution of previous studies that serves as a basis for defining the significance of a replication work. The paper also presents the outcome approach adopted by previous works. An avenue for further research is presented in the last sections.*

**Keywords:** *corporate governance, board structure, firm performance, outcome approach, specific task, financial-based performance*

### **INTRODUCTION**

This paper discusses the empirical studies investigating the association between board composition and organizational outcome. According to Zahra and Pearce II (1989), the attributes of the board determine its role and its effectiveness, and subsequently affect the relationship between board and firm performance. They posit that board attributes refer to its composition, characteristics, structure and process, and state that there is dynamic interaction between these attributes. However, their model reveals that composition is an exogenous attribute while characteristics, structure, and process are endogenously determined by composition attribute. This provides justification for the claim that the board composition is the most important attribute of the board institution.

The paper is intended, firstly, to document the existing empirical studies in this area. Secondly, to identify the research gap, that serves as a basis for rationalizing the significance of the study in the context of Indonesia. Although this paper focuses on

the association between board of directors and firm performance, it is expected to provide a template that would help novice researcher to define the importance of an empirical study in a broader coverage of corporate governance issues. It begins with discussing the motivation and contribution of existing empirical research. The following sections present the indicators of organizational outcome. The last section concludes the discussion.

Empirical works investigating the relationship between the proportion of insider/outsider directors and firm performance have documented inconclusive findings (Appendix 1). A positive relationship is found in Dehaene, De Vuyst and Ooghe (2001), Hossain, Prevost and Rao (2001), Hutchinson and Gul (2004) and Krivogorsky (2006). Other studies present a positive relationship between the proportion of insider directors and firm performance (Kesner, 1987), a negative relationship between the proportion of outsider directors and firm performance (Bhagat and Black, 2002; Del Guercio, Dann and Partch, 2003; Erickson

*et. al.*, 2005; and Lawrence and Stapledon, 1999) while an insignificant relationships have been documented by Fosberg (1989), Hermalin and Weisbach (1991), Peng (2003), and Tian and Lau (2001). Moreover, the inconclusive findings are also found in a single study. For example, Vafeas and Theodorou (1998) find that the fraction of non-executive directors is insignificantly related to firm performance in OLS result, while 2SLS reveals a negative relationship. The work of Schellenger, Wood and Tashakori (1989) documents a positive relationship with market return and an insignificant relationship with accounting performance.

The inconclusive finding is also found in the empirical work addressing the issue of the relationship between leadership structure and firm performance (Appendix 2). Some studies present empirical support of a positive relationship between an independent leadership and firm performance (Carapeto, Lasfer and Machera, 2005; Coles, McWilliams and Sen, 2001; Desai, Kroll and Wright, 2003; and Faccio and Lasfer, 2000) and a positive association between combined leadership and organizational outcome (Davidson, Worrell and Cheng, 1990; and Tian and Lau, 2001). A negative relationship is found in the work of Rechner and Dalton (1991) while an insignificant relationship is presented by Daily (1995), Daily and Dalton (1993), Schmid and Zimmermann (2008), Brickley, Coles and Jarrell (1997), Chen *et. al.*, (2006) and Fosberg and Nelson (1999).

The inconclusive finding has been commonly cited as justifying the significance of the study. However, it should be noted that the prediction regarding as to why such a finding occurs is more important than that inconclusive finding *per se*. Therefore, a rigorous research requires a good understanding on the weakness of the existing study. In this circumstance, a careful literature would help a researcher to find the

shortcoming of previous study and addressing this shortcoming would contribute to the growing body of knowledge.

## LITERATURE REVIEW

### Motivations and Contributions of Previous Studies

Empirical works investigating board composition advance various rationales justifying the importance of the study. However, the main motivation remains unchanged: to empirically test the underlying theory concerning the association between board composition and the behaviour of contracting parties. These works assume that such association is reflected in the observable and significant relationship between board composition and particular organization outcome (Hermalin and Weisbach, 2003). Accordingly, most of these works begin with research questions asking whether the different board size, leadership structure (either combined or separated), and the proportion of outside directors to total number of directors, lead to different decisions and presumably, produce different outcomes.

The objective of earlier studies, which mostly focus on US firms, is arguably simple: to examine directly the effect of certain board composition on firm value, where this effect is assumed to be straightforward. Recent empirical work commonly begins with the argument noting the shortcomings and the inconclusive finding of earlier studies. This argument, it is believed, would justify further investigation of the same theme in a different setting and using different methods. Thus, the scholarly *raison d'être* of these works is twofold. The first is to contribute to academic literature by seeking empirical confirmation of the underlying theory. The second is to challenge the generalizability of previous findings by verifying either its external or internal validity.

### **External Validity**

External validity refers to the verification of a previous finding in a different setting using a similar method. Most empirical studies investigating board composition fall into this category. This stream of works argues that firms in different populations possess specific characteristics that might affect the relationship between board composition and firm outcome. The specific population might refer to the firm size, type of industry and growth opportunity, although this list is not exhaustive.

As Daily and Dalton (1993) observe, studies researching board composition focus heavily on larger firms. They argue that firm size might confound such a relationship. Specifically, larger firms tend to be complex and face more internal and external forces, which reduce the ability of any given individual to initiate change, to affect the direction of the firm and to influence the organizational outcome. Consequently, the complexity of a large firm complicates the relationship between governance structures and organizational performance. By contrast, a small firm adopts simpler structures and systems, resulting in a more narrow focus, which makes it easier to direct and change the direction of a company. Thus, CEOs and directors are less constrained by the organizational and structural system in small firms, and therefore more able to influence the outcome of the firms. This implies that the effect of board composition on firm performance is more likely to be observable in small firms.

Barnhart, Marr and Rosenstein (1994) contend that firm performance varies systematically across industry. This indicates that industry characteristics may confound the association between board composition and firm performance. Accordingly, studies addressing this issue should account for industry effect. Based on this argument, Judge (1994) argues that focusing on a sin-

gle industry sufficiently justifies the importance of the study as an intra-industry comparison is more meaningful than a between-industry comparison.

The association between board composition and firm performance might also be affected by the presence of incremental agency conflict embedded in the growth opportunity (Hutchinson and Gull, 2004). The motivation of a study focusing on this issue is grounded on the premise that investment opportunity sets may exacerbate agency conflict due to the higher information asymmetry problem. Growth options, unlike assets-in-place, are discretionary investment opportunities specific to the firm, which require specific control mechanisms. Therefore, the optimal board for a growth firm require a composition different from those of a non-growth firm. Boone *et. al.*, (2007)) argue that a growth firm emphasizes the board advisory role, rather than the monitoring role, and this focus may complicate the association between board composition and firm performance.

The non-US based studies commonly begin with similar underlying presumptions. This work presumes that an environmental setting can potentially affect internal governance structure and its effectiveness. According to Vafeas and Theodorou (1998, p.384), "...while the assumption of a utility-maximizing agent is universal, each country's regulatory and economic environment, the strength of capital markets, and current governance practices are different" and therefore the US results regarding the board structure-performance relationship may not be generalized. Accordingly, they suggest that the importance and value of various governance structures should be separately examined in each country. This argument is consistent with an institutional perspective, which contends that, to some extent, the specific environment faced by the firm might have a substantial impact on the

firm's structure, governance, and its accomplishment.

The US institutional environment is commonly cited as being characterized by strong legal protection (La Porta *et. al.*, 1999, 2000) which eventually leads to a large, deep and liquid market, active institutional investors, and a dispersed ownership (Erickson *et. al.*, 2005). This setting it is believed would enhance the simultaneous working of both internal and external governance mechanisms in reducing self-interest behaviour from agents (Brunello, Graziano and Parigi, 2003). The departure from the US setting potentially affects the effectiveness of corporate governance, in general, and internal mechanisms in particular. Consequently, the motivation for the study refers to the verification of underlying theory in different institutional environments.

Park and Shin (2004) find that the differences between the Canadian institutional setting and that of the US hinge upon the ownership structure and the smaller number of institutional investors. Specifically, they contend that ownership of Canadian firms is concentrated in the hands of majority shareholders. This setting implies the existence of illiquid markets that force the institutional investor to actively monitor management as the market provides less liquidity to pursue an exit strategy. In such an environment, institutional investors would make demands for board representation in order to secure their investment. They argue that the directors representing institutional investors would result in a different impact on the relationship between board composition and firm performance as compared to those representing non-institutional shareholders.

The difference in institutional setting between Australia and the US has been documented by Matolcsy, Stokes and Wright (2004) contending that the market is

small in the Australian corporate governance system. This setting is less likely to encourage an active market for corporate control. Consequently, they argue that the effectiveness in "...inducing boards to be strict monitors and take corrective action in case of failure, may not be comparable to the US and the UK" (p. 2). Therefore, they believe that it is important to investigate the relationship between board of directors and firm performance in Australian setting as it may help to "...differentiate between the role of market specific factors versus governance characteristics" (p.3).

The European evidence has emerged, although the number of studies is limited. These works commonly refer to ownership structure and financing patterns as the main differences of institutional setting between those of US and European countries. Traditionally, firms in the European Union are stakeholder oriented and are characterized by the a prevalence of insider dominated control and relational investment and the reliance on credit markets and less on equity markets that make ownership fairly concentrated and stable over time, the prevalence of relational investment (Lehman and Weigand, 2000). This pattern of investment may mitigate agency problems as it enhances collective action of small owners and reduces information asymmetry.

A cross-country analysis of European-based firms by Krivogorsky (2006) suggests that management's objective is not necessarily to maximize the stock prices, nor to be typically sensitive to firm performance within this environment. This work reveals that, although the law systems are quite distinct from one another, the individual codes in a single country expresses relatively common views on issues related to the importance of board composition, ownership structure, and its influence on firm performance. However, Klapper and Love (2004) find that the effectiveness of investor protec-

tion provided by legal system varies across European countries. This finding suggests that different institutional settings exist across this region. Thus, although a common view might prevail, the different levels of investor protection might lead to the inherent endogeneity problem of cross-country analysis as this study suffers from different institutional settings among European countries.

Analysis of a single, European-based country has also been documented, although the number is still limited. The Belgium evidence by Dehaene, De Vuyst and Ooghe (2001) starts with the description that this economy is characterized by ownership concentration, less active institutional investors, fewer listed firms and the higher level of majority shareholders' involvement in management decisions while Postma *et al.*, (1999) claims the lack of take-over mechanism and low investor protection in the Dutch institutional setting. Similarly, an Italian-based study reveals that its institutional setting is also typified by concentrated ownership, the absence of large independent shareholders and limited bank monitoring (Brunello, Graziano and Parigi, 2003). This work argues that these features lessen the effectiveness of internal mechanisms to discipline poorly performing managers as the controlling shareholders dominate the board of directors and the management team. According to Dehaene, De Vuyst and Ooghe (2001) the different business contexts between those of US and European countries might create distinct corporate governance and accordingly "...comparing US and UK models in isolation can lead to the futile conclusions" (p.383).

The Asian-based studies commonly start with the similar presumption to those of European-based studies. These works are motivated by the importance of verifying the finding of developed countries in the different business contexts. However, unlike their

European counterpart, the agency problem of Asian firms is exacerbated by the existence of coalition between controlling shareholders and blockholders (Faccio, Lang and Young, 2001), excessive control by majority owners, and heavy reliance on external financing (ADB, 2000). Furthermore, LaPorta *et al.*, (2002) suggest that most Asian economies exhibit lower degrees of investor protection.

The Malaysian evidence by Haniffa and Hudaib (2006) reveals that this economy has different institutional settings to those of the US. First, ownership of the firm is highly concentrated, where the majority control is further enhanced through pyramidal and cross-holding ownership. This implies the absence of a corporate market for corporate control and hence leaving minority shareholders without protection except through adopting an exit strategy, which is a weak defence against management control. Secondly, the higher degree of owners' involvement in management decisions suggests the absence of separation of ownership and control and increases the likelihood of expropriation from minority shareholders. Thirdly, the lack of a merit system in the lending process, as a result of a close relationship between firms, bank and government, encourages morally hazardous lending practices. Yeh, Ko and Su (2003) posit that the specific institutional setting of Taiwan hinges upon the prevalence of ownership concentration, low institutional ownership, an inactive market for corporate control and less investor protection provided by the legal system. Similarly, Prabowo and Simpson (2009) and Prabowo *et al.*, (2009) suggest that the institutional setting of Indonesia is characterized by ownership concentration, weak investor protection by legal system, and the existence of excessive control-enhancing mechanisms by controlling shareholders. These institutional features thus provide majority investors with higher

degrees of control. Accordingly, these works contend that the relationship between board composition and firm performance of Asian firms is possible to demonstrate different patterns with those in the US and UK.

The change in economic system, as result of political change, has also been identified as providing sufficient rationale supporting the importance of study. Economic system, in general, can be broadly categorized as either being derived from capitalism or socialism. The political system change of Russia, which led to the switching of economic systems from socialism to capitalism, has been argued as having an impact on corporate governance demand (Peng, Buck and Filatotchev, 2003). This switching triggered mass privatization of former state-owned enterprises that then creates the demand for corporate governance. Given the earlier stage of market development, the internal governance mechanisms might produce different outcomes as compared to developed countries. However, governance reform might produce performance improvement as the new directors have less political connection with former communist regimes. Based on these arguments, Peng, Buck and Filatotchev (2003) contend that investigating Russian firms after mass privatization significantly contributes to the governance literature.

#### ***Internal Validity***

In complement to external validity, several studies have challenged the findings of previous research using different approaches. This so-called internal construct validity covers broader aspects of empirical methodology such as measurement, definition of variables, linearity, interdependence, and endogeneity issues. Internal validity is also related with the approach capturing the outcome of board monitoring effectiveness (Bhagat and Black, 2002). Indeed, this stream of works might also refer to the dif-

ferent prediction as a result of different underlying theory of empirical analysis. The following section presents further discussion of internal validity of empirical works.

#### **Theoretical Background of Board Structure Studies**

Study investigating the relationship between board composition and organizational outcome might adopt one of various existing underlying theories (Zahra and Pearce, 1989). According to Hung (1998), a theory reflects the argument of a different school of thought that proposes a different role and, accordingly, a different prediction regarding the effect of board composition on firm performance. Specifically, the association between board composition and organizational outcome could be analysed using resources dependence theory, class hegemony theory, legalistic approach, stewardship theory and agency theory (Hung, 1998; Zahra and Pearce, 1989).

Resources dependence theory emphasizes on the advice and service role, where the board is responsible for providing information to the executive and for securing the vital resources (Pfeffer, 1972). This view implies that such roles are best performed by interlocking directors that increase coordination, reduce transaction costs, and improve access to the resources and information (Pearce II and Zahra, 1992; and Provan, 1980). Class hegemony theory argues that the boards serve as a device of elite capitalists to consolidate and maintain their power in order to control social and economic institutions. Accordingly, the main responsibility of the board is to create inter-organizational relationships in order to ensure the sustainability of the firm. Within this view, only individuals of the ruling elite class may serve as directors and the exclusivity of this structure provides assurance that the interest of the elites are protected (Ratcliff, 1980). Zahra and Pearce (1989)

posit that empirical studies borrowing the resources dependence and class hegemony theories are limited.

Agency theory views the board as an ultimate mechanism of internal corporate control. This theory assumes that managers are self-interested individuals and therefore the main role of the board is to monitor management in order to ensure that the interest of shareholders is well respected. Unlike agency framework, stewardship theory assumes that the individual is trustworthy rather than self-serving (Davis, Schoorman and Donaldson, 1997). This implies that managers are good *stewards* of the corporation, and therefore the steward and principal might establish mutual cooperation and a "goal alignment". Consequently, stewardship theorists believe that managers will perform better whenever they are trusted and granted with decision-making authority. In this framework, a governance structure would be optimal if it permits coordination between board and management (Donaldson, 1990; Donaldson and Davis, 1991) as the board is expected to focus on their advisory role.

Legalistic approach posits that the boards contribute to firm performance by performing their mandated responsibility, where the directors are entitled to the legal power to fulfil their responsibility. This approach is intended to obtain empirical confirmation regarding the impact of specific legal provision on the association between the board composition and organizational outcome. Dahya and McConnel (2005) argue that the regulations imposing minimum inclusion of independent directors are pioneered by Cadbury Report of UK. This report is derived from the perspective of agency theory (Hung, 1998) and accordingly the theoretical background and the prediction of the relationship between board composition and firm performance is similar to that of agency theory. An example of this

study is found in Hossain, Prevost and Rao (2001) of New Zealand investigating the effect of the Company Act 1993 on the association between board composition and firm performance while similar work from Spain has been documented by Anson and Rodríguez (2001).

Zahra and Pearce II (1989) observe that most empirical studies use agency theory as their conceptual framework. However, some empirical works have borrowed agency theory and stewardship theory simultaneously. Empirically, such theories have been quoted as having two competing predictions in relation to the effect of board composition on firm performance. According to Desai, Kroll and Wright (2003), stewardship theory predicts that the proportion of independent directors serving on the boards has a negative association with market return, while under agency theory the proportion of independent directors is expected to have a positive association with such a return. Similarly, Tian and Lau (2001) test these hypotheses using accounting earnings as performance indicators.

### **Interdependence among Governance Mechanisms**

An important issue pertinent to the association between board composition and firm value is the interdependence among governance mechanisms (Agrawal and Knoeber, 1996). According to Berglöf (1997), interdependence refers to the substitutability and complementary relationships among governance mechanisms. The work of Heinrich (1999) provides a rationale for the coexistence of different configurations of corporate governance, as the consequence of the multitude of agency problems, that may produce equal outcomes. Consequently, a firm may choose a certain governance configuration across the mechanism or within the mechanism that most effectively meets its organizational and environmental context

(Du and Dei, 2002). In support of this notion, Danielson and Karpoff (1998) find that governance mechanisms vary across firms without any uniform pattern, suggesting that firms adopt certain governance combinations that best address their specific issues. However, specific combinations of instruments “...which reinforce each other in minimizing agency costs fit together better than alternative combinations” (Heinrich, 1999, p.2).

The substitution argument posits that the importance of a particular monitoring device depends on the presence of multiplicity of control mechanisms while complementarities argument suggests that the effectiveness of the board monitoring role is contingent upon the presence of other strong governance mechanisms (Rediker and Seth, 1995). A number of studies investigating the association between board composition and firm performance have addressed the substitutability issue among governance instruments and supported the existence of substitution effects among governance variables. Coles and Hesterly (2000) find that board independence becomes a significant negative predictor of organization outcome when there is interaction between board and leadership. This result suggests that the market views insider directors positively when the board chairperson is independent of management for the reason that insider directors provide information necessary to make effective decision making.

In a broader coverage of governance mechanisms, the work of Rediker and Seth (1995) implies that the importance of the board as a monitoring device depends on the presence of a multiplicity of control mechanisms. Berry (2006) examines the interdependence among the proportion of independent directors, insider ownership, large shareholderships, and directors representing venture-capital firm. This work finds that independent directors have a negative asso-

ciation with venture-capitalist directors, suggesting that independent directors be added to compensate venture capitalist directors in order to maintain board independence. This study provides supportive evidence that as higher agency costs occur from the decrease of insider ownership, other mechanisms such as independent directors, venture-capitalist directors, and unaffiliated blockholdings change in ways that help to mitigate agency problems. Zajac and Westphal (1994) report that CEO incentives (equity holding) are negatively related to the level of board monitoring as represented by the proportion of independent directors and separated leadership. They suggest that this finding supports the view that monitoring by boards is less important when the incentive structure is strong.

The complementary relationship among governance mechanisms has been documented by agency studies. Methodologically, these works commonly rely on the cumulative score of a particular governance index as a construct of governance level, where a higher score is believed to have better governance arrangements. This approach assumes that governance mechanisms complement each other and these complementarities are reflected in the higher cumulative scores. Based on this proposition, some studies have used governance composite index. Durnev and Kim (2005) and Mitton (2004) use governance index of CLSA, which incorporates governance mechanisms and provisions. Brown and Caylor (2004) borrows governance index developed by International Shareholders Service, namely Corporate Governance Quotient (CGQ), consisting of four aspects such as board composition, compensation, takeover defences, and auditing. Other works have constructed particular governance indices that suit the specific objective of the study. Gompers, Ishii and Metrick (2003) construct a governance index focus-



ing on the provisions that potentially reduce shareholder rights, consisting of five major items such as tactics for delaying hostile bidding, voting rights and their mechanisms, director/officer protection, state laws, and other takeover defences. Black, Jang and Kim (2006) and Bai *et. al.*, (2004) use a specific index incorporating governance mechanisms and particular provisions.

Coles and Hesterly (2000) believe that most empirical studies ignore the interdependence issue as such studies partially examine the single subset of governance mechanism in the isolated relationship. might contribute to the spurious findings and inconsistent estimator of regression analysis that complicates the interpretation and generalizability of the results (Agrawal and Knoeber, 1996). Accordingly, studies investigating the relationship between board composition and firm performance should control for the presence of other governance mechanisms available within a specific institutional context. Nevertheless, the literature is inconclusive as to whether the relationships among governance mechanisms are complementary to, or substitute, ~~each other~~.

Generally, directors can be characterized as insider and outsider (Dalton *et. al.*, 1998). The standard view of agency theory posits that outsider directors represent independence of management, but can be impaired by receiving incomplete information regarding firm operation, while insiders are well informed, although their independency on management may be compromised (Rhoades, Rechner and Sundaramurthy, 2000). Therefore, the board potentially lessens the conflict between manager and shareholder if the directors are independent of management and have sufficient knowledge of the firm (Ward, 2003). In support of this notion, Green (2005) suggests that the board would optimally monitor management whenever there is a balance between inde-

pendent and information properties. In this circumstance, the presence of insiders serving on the board potentially mitigates the information problem, while outside directors encourage an objective assessment of management performance. Accordingly, an optimal board composition comprises insiders and outsiders who bring different attributes, skills and knowledge to the board (Bhagat and Black, 2002).

Given that the optimal board comprise a balance of insider and outsider directors, Block (1999) argues that there exists an optimum point of inclusion of outsider directors serving on the board. Particularly, adding outside directors to the board is beneficial whenever the optimum point has not been reached. This inclusion will encourage board independence and therefore promote the effectiveness of its monitoring role. Eventually, higher board independence enhances the convergence of interest between those of principal and agent, which leads to better firm performance. After the optimal level has been achieved, the incremental benefit of having additional outsiders on the board will diminish due to the information asymmetry problem. This argument implies that there exists a non-linear relationship between both insider and outsider directors and firm value.

A study by Barnhart, Marr and Rosenstein (1994) incorporates this issue and employs quadratic and cubic terms in overcoming such issue. Their work reveals that firm performance is related to outside director in quadratic terms and in cubic terms, suggesting that the relationship is non-linear. Moreover, a polynomial shape is found in the relationship between outside director and firm performance, suggesting that firm performance tends to fall as outside directors increase, but then rises after outsider directors constitute approximately two-thirds of the board. Instrumental variables analysis also reveals that outside director has

a curvilinear relationship with performance. However, the instrumental variables methods depend on the first-stage result and therefore they suggest that these results must be interpreted cautiously. Baysinger and Butler (1985) confirm that the relationship between board composition and relative financial performance is not strictly linear with some forms of diminishing marginal performance return when adding independent directors to the board. To capture the non-linearity relationship, they divide the independent director representation into discrete categories based on the above and below average. They argue that such grouping reflects the sharp differences in board staffing philosophies. In similar vein, Block (1999) decomposes the sample into deciles groups and finds that the pattern of such a relationship clearly yields non-monotonic relationship.

The departure from optimal composition has been quoted as the source of boards' failure to effectively pursue their roles. Bhagat and Black (2002) suggest that the trend towards a greater proportion of independent directors on boards is evident in the US. Their work reveals that between 1970 and the late 1990s, the US has witnessed a switch from insider-dominated to outsider-dominated boards. The switching became dramatic after 1990, when significant numbers of corporations had a supermajority of outside directors on their boards. However, a supermajority of independent directors emphasizing the monitoring role might have a perverse effect (Baysinger, Kosnik and Turk, 1991). Due to the threat of disciplinary actions by outside directors, managers may become risk-averse, which forces them to reduce time horizons, change risk preferences, and limit the sensitivity of their wealth to the outcome. These factors tend to discourage managers from pursuing riskier projects with potentially positive returns.

Although non-linearity problems potentially might prevail, several studies continue to adopt linear relationship approaches without sufficient procedures to control for such problems. Examples of this approach are found in the work of Vafeas and Theodorou (1998) and Vafeas (2000). These works investigate the boards of UK firms and fail to support an unconditional empirical link between board structures (the proportion of outside directors and leadership structure) and organisational outcome. Similarly, Judge, Naoumova and Koutzevov (2003) examine Russian firms and also fail to support the association between insider directors and firm performance.

#### *Endogeneity*

An important issue pertinent to the association between governance mechanisms and firm performance is the endogeneity problem that has been quoted as a major concern for firm-level variables (Black, Jang and Kim, 2004, 2006). Endogeneity refers to the direction of causality on the relationship between governance and firm performance that inherently plagues empirical governance studies (Drobetz, 2003). Such issues potentially confound the interpretation of research findings as the governance improvement might enhance firm performance although, in reverse, firms might improve particular governance mechanisms in response to poor prior firm performance (Börsch-Supan and Köke, 2002). For example, Rosenstein and Wyatt (1990) find that the appointment of additional independent directors has a positive relationship with firm performance, and they interpret this finding as supporting evidence that governance improvement encourages firm performance.

However, Hermalin and Weisbach (1998) claim that the probability of independent directors being added to the board rises following poor firm performance. They

argue that governance mechanisms could be considered as a response to the prior poor performance in order to convince the market that the firms have adopted new strategies to overcome such performance problems. Within this context, empirical cross-sectional analysis may reveal that firms with a higher proportion of independent directors demonstrate lower performance and, consequently, independent directors will be interpreted as having a negative effect on the firm performance. This finding suggests that prior poor performance might drive outsider representation on the board. Conversely, the work of Yeh and Woitke (2005) reveals that an insider-dominated board is negatively related to prior performance. They argue that this pattern indicates that majority owners pursue the entrenchment strategy to reduce the board monitoring role in order to retain their control of the firm.

In a broader perspective, Demsetz and Lehn (1985) argue that endogeneity is also related to the optimal differences of governance portfolio suggesting that firms may endogenously and optimally choose different governance practices that best suit their specific challenge. This so-called reverse causation also implies that more profitable firms may choose weaker governance as they have less need for outside capital (Black, Jang and Kim, 2004). By contrast, Nowland (2008) contends that a particular governance improvement depends on the resources available to the firm implying that better prior performance is associated with better corporate governance. Although producing conflicting result, these studies indicate the existence of the association between prior performance and the existing board composition.

Governance-performance studies have taken different routes in controlling for endogeneity problems. Lemmon and Lins (2003) propose an approach in addressing endogeneity concerns by examining changes

in the variables of interest rather than its level. Similarly, Nowland (2008) uses panel data to relate changes in board measures to changes in firm performance. This work argues that such an approach provides a direct test as to whether improvements in board-related governance mechanisms are associated with better performance and therefore inherently control for unidentified firm-specific variables. Dherment-Ferere and Renneboog (2000) use lagged data for independent and dependent variables while Durnev and Kim (2005) measure the dependent variables using an estimate of projected need for outside capital rather than an outcome-based measure. Nevertheless, this work also uses the three-stage least squares method in addressing such an issue.

According to Seifert, Gonenc and Wrighta (2004), if a governance variable is endogenously determined, the OLS estimation will produce biased results while two step least squares (2SLS) will result in better estimates of the relationship between a governance variable and performance. They posit that 2SLS involves identifying instrument variables that are correlated with the key independent variable and uncorrelated with the dependent variables. Examples of this approach are found in the work of Himmelberg, Hubbard and Palia (1999), Lehman and Weigand (2000), and Black, Jang and Kim (2004, 2006). 2 SLS model adopted by empirical research is consistent with Borch-Supan and Koke (2002) who suggest that a structured model might mitigate endogeneity problem.

Although the structured model has been widely adopted, there is a lack of empirical consensus and theoretical support in identifying the determinants of particular governance mechanisms. Accordingly, empirical studies have proposed different models concerning the determinant of particular mechanisms that exacerbate the difficulties in identifying independent and instrument

variables. Moreover, the complementarities and substitution relationships between governance instruments imply that all of the governance variables are related to organizational outcome. As governance studies focus on the effect of particular mechanisms on firm performance, consequently, adopting a simultaneous equations approach to resolving the endogeneity is difficult to implement, "...because most instrumental variable candidates have been used as determinants in the regressions" (Fahlenbrach, 2003, p.24). Consequently, the effectiveness of the simultaneous model in resolving such a problem is questioned although such a model is econometrically robust (Coles, Lemmon and Meschke, 2007).

#### **Outcome Approach**

Agency theory posits that the main role of the board is to monitor management in order to prevent management from pursuing self-interest actions (Baiman, 1990). Jensen (1993) suggests that the effectiveness of a board's monitoring role depends on the level of board independence of management where such independence is determined by the leadership structure and the representation of outsider directors. As effective monitoring device potentially enhance firm performance, consequently, empirical studies follow the assumption that the effect of separated leadership and the higher proportion of outsider director will be reflected in the better outcome achieved by the firm.

However, empirical studies have documented the absence of consensus regarding the most suitable indicator measuring organizational outcome. Indeed, there are two approaches in studying the effect of board composition on organizational outcome. The first approach examines the effectiveness of the board monitoring role in the specific event that potentially affects shareholders' wealth. The second approach

directly investigates the effect of board composition on the overall firm value.

#### ***Specific Task***

Governance studies have investigated the monitoring role of the board using the discrete approach. This approach involves the board decision of a particular task to capture the outcome of monitoring effectiveness by the boards of directors. The advantage of this approach is it uses tractable data of the outcome, which makes it easier for the researcher to find statistically significant results (Bhagat and Black, 2002) and hence is potentially more powerful because it is less prone to unobservable factors contaminating the statistical relationship and is less likely to experience endogeneity problems (Hermalin and Weisbach 2003). However, the discrete approach "...does not tell us how board composition affects overall firm performance" (Bhagat and Black, 2002, p.235). A discrete approach mostly refers to a specific task such as CEO turnover, management compensation, and takeover defence (McColgan, 2001). This approach commonly starts out with the proposition that different board compositions reflect different levels of monitoring role that lead to different outcomes of specific tasks.

The CEO turnover refers to the sensitivity of management turnover to prior poor performance. Studies addressing such issues posit that corporate governance is intended to enhance the interest alignment between those of management and shareholders by removing poorly performing managers... According to Jensen and Ruback (1983), the threat of termination might discipline managers whenever there is high probability that managers are more likely to leave their firms following poor prior performance. Subsequently, if there is a threat of dismissal, a CEO is assumed to take "...this threat into account when deciding how to run the firm" (Lausten, 2002, p.395). Thus, the threat of

removal is expected to improve the alignment of interest of management and shareholders as it potentially reduces opportunistic behaviour of managers.

Some studies have investigated the effect of independent director representation on the sensitivity of poor performance to CEO turnover. These works commonly start with the assumption that the task to monitor and replace poorly performing managers is likely to fall mainly on the outside directors as they have an incentive to build the firm's human capital reputation as a decision control expert (Weisbach, 1988). Accordingly, it is predicted that the stronger relationship between poor performance and the probability of a CEO being replaced would be observed in the outsider-dominated and separated leadership board.

Executive compensation refers to the level of compensation and its sensitivity to performance. Within agency research, board compositions have been quoted as having an impact on compensation schemes. This proposition is grounded on the premise that self-interest agents prefer to maximize their wealth in regard to the compensation where its success depends on the ability to reduce the board's monitoring role. As the monitoring role is determined by board independence, it is expected that different levels of outsider director representation and leadership structure will affect executive compensation schemes. Specifically, agency research predicts that lower levels of CEO compensation and pay-performance contracts would be more likely to be observed in the firm with higher fractions of outsider directors and separated leadership. Conyon and Peck (1998) find that in UK firms the link between pay-performance is more sensitive with outsider-dominated boards, while the work of Ryan and Wiggins III (2004) documents that amongst US firms, equity-based pay is less likely to be found in the firm with higher proportions of insider directors. Core, Holthausen and Larcker

Core, Holthausen and Larcker (1999) and Boyd (1994) find that CEO compensation is positively related to CEO duality, while Conyon and Peck (1998) fail to support such a relationship.

Takeover defence refers to the adoption of a particular provision, which provides a target firm with certain tactics to prevent a potential bid including greenmail, golden parachutes, and poison pills. Brickley, Coles and Terry (1994) suggest that different board compositions might produce different outcomes with regards to the adoption of takeover defences. On the one side, some firms might use such provision to defeat offers and to create managerial entrenchment if the board is controlled by management. This view hinges upon the proposition that takeover is an important external governance as the changes in ownership are associated with the subsequent management turnover (Crespi-Cladera and Renneboog, 2003; and Koke, 2004). Thus, takeover could be viewed as turnover threat to the manager and takeover defence potentially related to an attempt of entrenching management. Accordingly, the adoption of takeover defence provisions is more likely to be observed in a firm with less independent board. Empirical work of Sundaramurthy (1996) confirms such prediction and documents that the percentage of loyal outsider directors to CEO is positively related to the adoption of anti takeover provision. Mallette and Fowler (1992) find that combined leadership is positively associated with the adoption of a poison pill.

In contrast, other firms might adopt takeover defenses in order to benefit shareholders. Under a shareholder-interest view, such provision is intended to extract the highest possible price from the bidder in a control contest. Brickley, Coles and Terry (1994) argue that this benefit might be achieved if the board demonstrates sufficient independence of management in represent-

ing shareholder interests. This works find that the average stock-price reaction to the announcement of the adoption of a poison pill is positively significant when outside directors comprise a majority of the board and negatively significant when they do not.

Complementary to the CEO turnover, management compensation and takeover defence, some studies propose the use of particular indicators of organizational outcome. These studies argue that the effectiveness of a board monitoring role might be reflected in the different firm's achievements. Baysinger, Kosnik and Turk (1991) address this issue by using average R&D spending per employee as the proxy of organizational outcome. Berry (2006) takes a different route by employing the state of the firm 11 years after an IPO, where firms are classified as either being survive, acquired, or bankrupt. Judge Jr. (1994) constructs social performance composite measures consisting of charity care, Medicaid revenue, and bad debts to total revenue. These works claim that adopting specific outcomes significantly contribute to the theoretical developments. As Judge Jr. (1994) argues, the use of specific outcomes is intended to develop a more integrative perspective on organizational effectiveness.

#### ***Financial-Based Performance***

In complement to the discrete approach, some studies investigate the direct effect of board composition on the overall firm performance. In this regard, the overall firm performance is measured using financial-based indicators. This approach allows the researcher to directly examine the bottom line of agency theory, which posits that board composition matters in predicting firm performance as it reduces perquisite taking by agent. According to Bhagat and Black (2002), the main disadvantage of this approach lays in the use of less tractable data of the outcome. Therefore, they suggest that

the firm performance, as the outcome of board monitoring, should be addressed carefully.

The indicators of the overall firm performance used by empirical research vary across studies. However, these indicators could be broadly categorized as either being "accounting-based" and "market-based". Accounting-based generally refers to the audited accounting information, while market-based relies on firms' share prices, which serve as direct proxy of shareholders' wealth. Rhoades, Rechner and Sundaramurthy (2000) observe that studies investigating the relationship between board composition and firm performance mostly utilize six financial indicators such as Return on Asset (ROA), Return on Equity (ROE), Earning per Share (EPS), profit margin, market value of share, and market to book value.

Some studies use market-based indicators as the proxy of firm performance. Barnhart *et. al.*, (1994) and Vafeas and Theodorou (1998) use market to book value while Lawrence and Stapledon (1999), and Postma *et. al.*, (1999), Rosenstein and Wyatt (1997) utilize market return. However, these indicators have been modified variously across studies. For example, Bhagat and Black (2002) use industry adjusted market return, while Lawrence and Stapledon (1999) use cumulative abnormal return. Other studies select accounting-based indicators measuring firm performance. Lehman and Weigand (2000) employ ROA, while Hutchinson and Gul (2004) choose ROE as performance indicators. Dehaene, De Vuyst and Ooghe (2001) use ROE and ROA, while Tian and Lau (2001) and Schellenger, Wood and Tashakori (1989) adopt both accounting and market-based measures as performance indicators.

Nevertheless, the various measures indicate that empirical works experience a lack of consensus regarding the most suit-

able measure of firm performance. Indeed, the work of Rhoades, Rechner and Sundaramurthy (2000) reveals that the empirical relationship between board composition and firm performance is sensitive to the operational definition of performance. Given this sensitivity issue, accordingly, empirical works commonly adopt various performance indicators in order to test the robustness of the results.

#### CONCLUDING REMARK

Studies investigating the association between board composition and firm performance advanced external and internal validity motivations, providing academic rationale to further investigate such issues. The external validity refers to the verification of previous findings in different settings using similar methods. The motivation of US based study refers to the presumption that a firm in a particular population possesses specific characteristics, which might affect the relationship between board composition and that firm's outcome. The importance of non-US based study hinges upon the presumption that the departure from the US institutional setting might affect the structure and effectiveness of firm level governance. Accordingly, the importance and value of various governance structures should be separately examined in each country. With regard to internal validity, there are three important methodological issues; namely endogeneity, interdependence, and linearity. The failure to adequately control for these issues is believed to lead to spurious results, which contribute to the inconclusive findings.

Although the inconclusive findings have been quoted as providing motivation to conduct meta-analysis study, Hubbard, Vetter and Little (1998) argue that the systematic replication of research is more useful than a meta-analysis. This view is in complement to Cortina (2002) and Fuller and

Hester (1999), who challenge the result of meta-analysis as a final finding. According to Kang and Zardkoohi (2005), a meta-analysis by Dalton *et. al.*, (1998) finds the potential for further moderating influences. Consequently, a well-designed primary study replicating previous research remains necessarily required in the theory development.

The previous discussion reveals that research gaps exist in empirical study investigating the association between board composition and firm performance. The first refers to the external validity, which suggests that replicating work in non-US settings is still needed. Secondly, such study is expected to address internal validity issues sufficiently in order to overcome the shortcomings of previous works. This implies that replicating such study focusing on the context of Indonesian settings might provide significant contribution to the governance research whenever such study adequately controls for methodological validity issues.

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### Appendix 1

**Table 1:** Empirical Studies Investigating the Association between the Proportions of Insider/Outsider Directors and Firm Performance

Authors	Period of data	Sample	Composition measurement	Measure of organisational outcome	Control for other governance mechanisms	Results
Barnhart <i>et. al.</i> , (1994)	1990	369 of Standard and Poor's 500	Outsider	Market to book value	Blockholder and managerial ownership	<ol style="list-style-type: none"> <li>1. The proportion of outsider directors is positively related to the firm performance (OLS).</li> <li>2. The proportion of outsider directors has curvilinear relationship with performance in the instrumental variable analysis.</li> </ol>
Baysinger and Butler (1985)	1970-1980	266 US major firms from Forbes	Outsider	ROE industry-adjusted	None	<ol style="list-style-type: none"> <li>1. Firm with higher proportion of independent directors at the beginning and ending period have the best performance in the ending period.</li> <li>2. Firm with lower proportion of independent directors at the beginning and ending period have the lowest performance in the ending period.</li> </ol>
Baysinger <i>et. al.</i> , (1991)	1981-1983	176 Fortune 500 firms	Insider	Average R&D spending per employee	Blockholder	<ol style="list-style-type: none"> <li>1. The proportion of inside directors positively affects the R&amp;D spending.</li> </ol>

Berry (2006)	1979-1997	823 firm-years that went public 1979-1986	Outsider	Survive, acquired, and bankrupt eleven years after IPO	Firm size, performance, risk (volatility), and asset composition	1. The proportion of independent directors in survive and acquired firms increases, but not for bankrupt firms
Bhagat and Black (2002)	1985-1995	928 US large firms	Insider, Grey, Independent	Q, ROA, ROS, Market adjusted return	Board size, CEO ownership, outsider directors ownership, firm size	1. Board independence has negative association with all three performance measures. 2. Past performance has negative association with board independence suggesting that poor performance adopt more independent directors on the board.
Block (1999)	1990-1994	1026 of firms announcing additional one outsider directors only	Outsider	Cumulative abnormal return	None	1. The impact of the new appointment of outsider director is positive with the greatest effect on the 30-50 percent range of outsider fraction before announcement. 2. The pattern shows non-monotonic relationship
Dahya and McConnell (2005)	1989-1999	700 industrial and financial firms of the LSE	Outsider and insider	Industry and size-adjusted stock returns	None	1. Stock price reaction to outsider directors appointments is positive and significantly greater than the reaction to inside CEO appointments
Daily and Dalton (1992)	1990	100 small firms	Outsider	ROA, ROE, P/E ratio	None	1. The proportion of outsider directors is marginally associated with higher firm performance
Daily and Dalton (1993)	1990	186 listed small firms	Outsider directors	ROE, ROA, Return	None	1. The proportion of outsider directors is positively related to the performance measures
Daily and Dalton (1994)	1972-1982	Pair of 57 bankrupt and survivor firms	Insider	Bankruptcy	None	1. Bankrupt firm have a greater proportion of affiliated director than survivor firm
Dehaene, De Vuyst and Ooghe (2001)	1995	61 listed and 61 non listed Belgium firms	Outsider	ROA, ROE	Leadership structure and board size	1. The proportion of outsider directors has positive relationship with ROE with low r square. 2. The larger outsiders and relative importance of outsiders is stronger in listed companies.
Del Guercio, Dann and Partch (2003)	1996	476 closed-end funds offered by 105 investment complexes	Outsider	Fund expense ratio, Discount levels	Board size	1. The proportion of outsider directors is negatively related to fund-expense ratio 2. The proportion of outsider directors is insignificantly related to discount level
Erickson <i>et. al.</i> , (2005)	1993-1997	679 observations (unbalanced) and 330 (balanced) panel of Canadian firms	Outsider	Tobin Q – industry adjusted	Board size and ownership structure	1. The proportion of outsider directors has negative effect on tobin Q 2. The proportion of outsider directors from financial institution have positive effect on Q



Faccio and Lasfer, (2000)	1996-1997	1650 firms of London Stock Exchange firms	Outsider	Q ratio, ROA, ROE	Blockholders Managerial ownership	1. Firm with at least 3 outsider directors displays highest performance at low level of managerial ownership and displays lowest performance at higher level of managerial ownership.
Fosberg (1989)	1979-1983	127 pairs of firms ( 90 pairing majority vs. non majority outsider directors firms 37 pairing majority vs. super majority outsider directors	Outsider	ROE, Sales, General & Administrative expense, Number of employee, Sales to assets, SGA to assets, EMP to assets	None	1. All of performance indicators displays insignificant differences between majority and non-majority 2. All of performance indicators displays insignificant differences between majority and super-majority
Haniffa and Hudaib (2006)	1996-2000	347 firms listed in Kuala Lumpur Stock Exchange	Outsider	Q ratio, ROA	Board size, leadership structure, ownership structure	1. The proportion of outsider directors is insignificantly related to Q ratio and ROA
Hermalin and Weisbach (1991)	1971	142 firms of NYSE	Outsider	Tobin Q	Ownership structure	1. Overall board composition is insignificantly related to Tobin Q 2. Outsider directors with longer tenure is positively related to tobin Q
Hossain <i>et. al.</i> , (2001)	1991-1995	633 firm-years of New Zealand	Outsider	Tobin Q	Ownership concentration	1. The proportion of outsider directors is positively related to the firm performance 2. The interaction between outsider directors and legislation is insignificant suggesting that Company Act 1993 do not affect such association
Hutchinson and Gul (2004)	1998-1999	310 top listed Australian firms	Insider	ROE	Insider ownership	1. The interaction between Investment Opportunity Set and non-executive directors is positively related to ROE suggesting that negative association between IOS and performance is weaker with higher proportion of outsider directors.
Judge Jr. (1994)	1985 – 1987	162 general medical hospitals	Outsider	Financial performance, Social performance	None	1. The proportion of outsider directors is negatively related to financial performance 2. The proportion of outsider directors is positively related to social performance
Kesner (1987)	1983	250 firms of fortune 500	Insider	ROA, ROE, PM, EPS, Market return	None	1. The proportion of insider directors has positive association with ROA and PM
Krivogorsky (2006)	2000-2001	81 firm of EU listed in US	Outsider Insider	ROA, ROE, MTB	Blockholder Managerial ownership	1. The proportion of outsider directors has positive relation with firm performance 2. Insider directors is insignificantly related to firm performance

Lawrence and Stapledon (1999)	1995	100 top listed Australian firms	Outsider	Market return	None	<ol style="list-style-type: none"> <li>1. The proportion of outsider directors is negatively related to the market return.</li> <li>2. The proportion of outsider directors is insignificantly related to accounting performance</li> </ol>
Matolcsy <i>et. al.</i> , (2004)	2001	306 Australian listed firms	Outsider	Market value of equity per share	None	<ol style="list-style-type: none"> <li>1. The interaction between the proportion of outsider directors and growth is positively related to firm performance indicating that outsider directors are beneficial at the presence of growth options</li> </ol>
Peng, Buck and Filatotchev (2003)	1995-1996	314 large Russian firms from six major industrial region		Perceived ROI within 7 Likert scale	Firm size	<ol style="list-style-type: none"> <li>1. No significant positive association between the proportion of outsider directors and firm performance</li> </ol>
Postma <i>et. al.</i> , (1999)	1996	94 firms of Dutch non-financial firm listed in Amsterdam Exchange	Outsider	Return, Composite average of ROA, ROE, ROS	None	<ol style="list-style-type: none"> <li>1. Board attribute have no significant impact on firm performance</li> </ol>
Rosenstein and Wyatt (1990)	1981-1985	1251 announcements (622 non-contaminated, 629 contaminated)	Outsider	Market return (cumulative standardized prediction error)	None	<ol style="list-style-type: none"> <li>1. The announcements of outsider directors' appointment produce positive return for total and non-contaminated sample is significantly positive. However, abnormal returns are small in absolute magnitude</li> </ol>
Rosenstein and Wyatt (1997)	1981-1985	170 inside directors appointment announcement of NYSE firms	Insider	Market return	Leadership structure and insider ownership	<ol style="list-style-type: none"> <li>1. The announcements of insider directors appointment produce positive return for intersection of inside ownership 5% to 25% and outsider directors 60%.</li> </ol>

## Appendix 2

**Table 2:** Empirical Studies Investigating the Association between Board Leadership Structure and Firm Performance

Authors	Period of data	Sample	Measure of organizational outcome	Control for other governance mechanism	Results
Baliga <i>et. al.</i> , (1996)	1980-1991	61 firms changes from separate-to-combined 37 firms changes from combined-to-separate 12 firms remain separated and 111 firms remain combined	Cumulative Abnormal Return, ROA, ROE, Operating cash flow to total assets ratio, Operating cash flow to sales ratio	None	<ol style="list-style-type: none"> <li>1. Leadership structure is insignificantly related to firm performance as the performances insignificantly differs between groups</li> <li>2. The authors mention the possibility that such result might be driven by other governance mechanism adopted by the firms</li> </ol>

Brickley, Coles and Jarrell (1997)	1984–1991	1628 US firms	Return on Capital 1988, Stock return 1988, Industry-adjusted return on capital 1988, Industry-adjusted stock return 1988, Return on Capital: 1989-91, Stock Return 1989-91, Industry-adjusted return on capital 1989-91, Industry-adjusted stock return 1989-91	CEO tenure	1. The relationship between leadership structure and performance indicators is inconsistent. The authors suggest that the prevalence of separated leadership is best viewed as a succession strategy (passing the button)
Carapeto, Lasfer and Machera (2005)	1995-2003	119 announcements to split and 49 to combine leadership of UK firms	CAR, Q ratio, ROE	None	<ol style="list-style-type: none"> <li>1. Split announcement is positively related to abnormal return</li> <li>2. Combined announcement is negatively related to abnormal return</li> <li>3. Split and combined announcement is not related the performance improvement 2 years after the decision</li> <li>4. ROE before announcement is positive implying that the decision to split the roles of the CEO and COB is not driven by poor performance</li> </ol>
Chen <i>et. al.</i> , (2006)	1999-2003	169 fraud investigations of China Listed firms	Company fraud	Outsider directors, board meeting, directors tenure, ownership concentration and owners identity	1. Combined leadership has insignificant relationship with fraud
Coles, McWilliams and Sen (2001)	1984–1988	144 large US firms	Cumulative abnormal return	Outsider directors, insiders ownership and blockholders	<ol style="list-style-type: none"> <li>1. Truly independent leadership is related to return</li> <li>2. Report substitutability effect between independent leadership and the fraction of outsider directors suggesting that board with independent leadership and greater outsider representation might face information flow problem</li> </ol>
Dahya, Lonie and Power (1996)	1989–1992	76 UK firms	Average abnormal stock returns		1. Reported significant negative relationships
Daily and Dalton (1992)	1990	100 US firms in Inc. magazine	ROA, ROE, P/E ratio	Outsider directors and founder involvement in management	1. CEO duality is insignificantly associated with firm performance
Daily and Dalton (1993)	1988	186 small US firms	ROA, ROE, P/E ratio	Outsider directors and founder involvement in management	1. CEO duality is insignificantly related to all performance indicators

Daily and Dalton (1994)	1972–1982	57 matched pairs of bankrupt and survivor US firms	Corporate bankruptcy	Outsider directors	<ol style="list-style-type: none"> <li>1. Bankrupt firm have greater incidence of CEO duality than survivor firm</li> <li>2. Reported a significant positive interaction effect for CEO duality and the proportion of affiliated directors</li> </ol>
Davidson, Worrell and Cheng (1990)	1986	157 events by Fortune 500 firms	Cumulative abnormal returns	None	<ol style="list-style-type: none"> <li>1. Reported significant positive relationships between CEO duality and firm performance</li> <li>2. The author's hypotheses focused on the announcements of consolidation of board leadership structure as an executive succession mechanism.</li> </ol>
Dehaene, De Vuyst and Ooghe (2001)	1995	Pairing of 61 listed and 61 non listed firms	ROA and ROE	Outsider directors and board size	<ol style="list-style-type: none"> <li>1. Duality have positive impact on ROA</li> </ol>
Desai , Kroll and Wright (2003)	1980-1990	149 firms announcing acquisitions	Cumulative abnormal Return	Outsider directors, outsider directors ownership, CEO compensation	<ol style="list-style-type: none"> <li>1. Separated leadership demonstrate positive CAR and combined leadership demonstrate negative CAR</li> <li>2. Leadership structure moderate the association between the fraction of outsider directors and return</li> <li>3. The authors offer competing hypotheses derived from agency and stewardship theory</li> </ol>
Faccio and Lasfer (2000)	1996-1997	1650 firms of London Stock Exchange firms	Q ratio	Outsider directors, board size, management ownership	<ol style="list-style-type: none"> <li>1. Separated leadership firms have higher Q. This result only robust with low level of managerial ownership</li> </ol>
Fosberg, and Nelson (1999)	1989-1992	54 firms with stable leadership	Operating income to asset ratio Market to book value	None	<ol style="list-style-type: none"> <li>1. The result shows that separated leadership is associated with subsequent performance improvement while duality is insignificantly related to changes in firm performance.</li> <li>2. The authors' offer two competing hypothesis: agency and normal succession theory</li> </ol>

Haniffa and Hudaib (2006)	1996-2000	347 firms (1735 observation) of Kuala Lumpur Stock Exchange	Q ratio, ROA	Outsider directors, board size, multiple directorships, ownership by directors and top five owners	2. CEO duality is insignificantly related to Q ratio and negatively related to ROA.
Krivogorsky (2006)	2000-2001	81 EU firms listed in US	ROA, ROE, MTB	Outsider directors, ownership by management, controlling family, and blockholder	1. Combined leadership is negatively related to firm performance
Pi and Timme (1993)	1987-1990	112 US commercial bank holding companies	ROA, Cost efficiency	Managerial ownership	1. Combined leadership is negatively related to firm performance. 2. Reported a significant negative interaction effect for CEO duality and CEO ownership
Schmid and Zimmermann (2008)	2002	152 Swiss listed firms	Q ratio	Outsider directors, board size, ownership by management, directors, and blockholder	1. Reported insignificant relationships 2. Entrenchment effect of combined leadership might be mitigated by higher incentive alignment of insider ownership
Tian and Lau (2001)	1996-1997	113 Chinese listed firms	1. Return on assets 2. Return on equity 3. ratio of owner equity to total assets	Outsider directors, board size, ownership by state	1. the effect of combined leadership on firm performance is positive 2. The author offered competing hypotheses derived from agency and stewardship theories
Vafeas and Theodorou (1998)	1994	250 UK firms	Market to book value	Outsider directors, insider directors ownership	1. CEO duality is insignificant predictor of firm performance

**Indeks:**

*Corporate Governance*

*Board Structure*

board composition

organizational outcome

*Firm Performance*

*External Validity*

*Internal Validity*

Agency theory

Stewardship

**Governance Mechanisms**

*Linearity*

*Endogeneity*

Takeover defence

Executive compensation

CEO turnover

*Financial-Based Performance*

market-based indicators