Board Structure, Board Process and Board Performance: A Review & Research Agenda

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While the conceptual importance of boards of directors in modern day businesses is undisputed, it is equally crucial to study the relationship between board of directors and board performance. The objective of this study is to examine the current literature and suggest that a better way to examine the role of board of directors is through a careful study on board structure, board processes and board performance, instead of focusing on board structure and firm performance alone.

INTRODUCTION

Board research has traditionally centred on the relationship between board structure and firm performance. Empirical studies have however shown that the relationship is equivocal. In this paper, we propose that board process could be the missing link. We introduce an integrative conceptual model between board structure and board performance, with board process as an intervening variable.

We based our definition of board structure on Tricker (1994). He noted that board structure distinguishes between those directors who hold management positions in the company and those who do not. Those with management positions are referred to as insider directors in the United States or executive directors in United Kingdom and Australia. The top person in the board is the chairman. He could be an executive or a non-executive of the company. If the CEO happens to be a director on the board, then he is an executive director. Zahra and Pearce (1989) identified other dimensions of board structure, such as the number and types of board committees, committee membership, flow of information among these committees and patterns of committee membership. In this paper, we concentrate only on CEO-chairman duality and insider-outsider directorships as they are widely covered in board research (see Dalton & Daily 1999; Davis, Schoorman & Donaldson, 1997; Johnson, Daily & Ellstrand, 1996; Zahra & Pearce, 1989).

Board processes refer mainly to the decision-making activities of directors of companies. We identified four process variables, based largely on existing research on group and top management team (TMT) studies (Amason & Sapienza, 1997: Forbes and Milliken, 1999; Jehn & Mannix, 2001). They are effort norms, conflict, presence/use of knowledge/skills and cohesiveness.

We define board performance as the ability of the directors in executing their roles. We identify three main roles that merit careful investigation: monitoring, service and strategic planning (Johnson, Daily & Ellstrand, 1996; Ong & Lee, 2000).

The layout of the paper is as follows. Firstly, we present the "why" to study board process as the intervening variable between board structure and board performance. For this, we review past studies on board research. This helps us to identify existing research gap and hence the need to study beyond current focus on board research. We will highlight the present status of theoretical analysis on board process and performance, illustrating in particular the lack of empirical studies in this area. The need for new areas of board research and a better theoretical framework lead us to the "how" question. We will introduce a new conceptual model of board processes and performance. In the concluding section, we will highlight the uniqueness and potential contributions of undertaking such a study, based on the suggested model.

WHY THE NEED TO STUDY BOARD PROCESSES AS AN INTERVENING VARIABLE BETWEEN BOARD STRUCTURE AND PERFORMANCE

To date, the relationship between board structure (as opposed to board processes) and company performance has been the most-studied aspect among all board investigations (Bhagat & Black, 1999). In these studies, it is often assumed that a company's financial performance is mainly determined by board characteristics. Pfeffer (1983) argued that it is not necessary to understand board processes as directors' performance can be inferred from their demographic characteristics. To a large extent, such a justification is parsimonious: if one can show that board structure leads to company performance, it is not required to explain how/why board operates in certain ways. This analysis is very appealing, as quantification of board structure and company performance is much easier than that of incorporating board processes and board performance.

Two areas of board research which have made use of the above assumption are CEO-chairman duality and insider/outsider directors (Zahra & Pearce, 1989). Under CEO-chairman duality, the CEO of a company plays the dual role of chairman of the board of directors. Several researchers argue that CEO-chairman duality is detrimental to companies as the same person will be marking his "own examination papers". Separation of duties will lead to (1) avoidance of CEO entrenchment; (2) increase of board monitoring effectiveness; (3) availability of board chairman to advise the CEO and (4) establishment of independence between board of directors and corporate management (Baysinger & Hoskisson, 1990; Fama & Jensen, 1983; Rechner & Dalton, 1991).

On the other hand, other researchers believe that since the CEO and chairman are the same person, the company will (1) achieve strong, unambiguous leadership; (2) achieve internal efficiencies through unity of command; (3) eliminate potential for conflict between CEO and board chair and (4) avoid confusion of having two public spokespersons addressing firm stakeholders (Davis, Schoorman & Donaldson, 1997; Donaldson & Davis, 1991).

A closer look at the empirical evidence reveals that the relationship between CEO-chairman duality and company performance is mixed and inconclusive. See Table 1 for a list of some of these studies.

Table 1

Relationship between CEO-Chairman Duality and Company Performance

Study (Year)	**Dimension**	**Performance Indicators**	**Sample**	**Major Findings**
1. Berg & Smith (1978)	CEO-chairman duality	Change in value of common stock Dividend growth Stock price growth ROI	*Fortune 200* firms	Independant CEO-chairman was positively related with ROI No relationship with other indicators
2. Chaganti et al. (1985)	CEO-chairman duality	Firm bankruptcy	21 pairs (successful/failing) of retail firms	No relationship with financial performance
3. Rechner & Dalton (1991)	CEO-chairman duality	ROE ROI Profit margin	250 *Fortune 500* firms	Independant CEO-chairman was positively related with financial performance
4. Donaldson & Davis (1991)	CEO-chairman duality	ROE	337 U.S. firms from *S&P*	Dual CEO-chairman was positively related with financial performance
5. Daily & Dalton (1992)	CEO-chairman duality	ROA ROE P/E ratio	*Inc.* 100 firms	No relationship with financial performance
6. Daily & Dalton (1993)	CEO-chairman duality	ROA ROE P/E ratio	186 small firms	No relationship with financial performance
7. Daily & Dalton (1994)	CEO-chairman duality	ROA	183 *Inc.* firms and small corporations	Independant CEO-chairman was positively related with

				financial performance
8. Daily & Dalton (1995)	CEO-chairman duality	Firm bankruptcy	214 firms	Independant CEO-chairman was positively related with bankruptcy
9. Boyd (1995)	CEO-chairman duality	ROI 192	U.S. firms	Dual CEO-chairman was positively related with financial performance in high complexity environments
Ong (1999)	CEO-chairman duality	Sales Net profit before tax ROI ROS	377 Singapore firms	No relationship with financial performance

The second most-studied dimension of board structure is the proposition of outside-inside directors. Outside directors are those directors who are not members of the corporate management. Some researchers argue that outsiders are likely to show more objectivity in their deliberations and are willing to consider diverse groups in making their decisions (Jones & Goldberg, 1982; Spencer, 1983). Other theorists in contrast noted that outside directors do not have the requisite time and expertise to do their job well. Some claim that since outside directors are chosen and retained by the CEO, they function and rely heavily on information provided by the CEO (Geneen, 1984; Vance, 1983).

A list of key studies which relates outside-insider directors to company performance is shown in Table 2. Again, the conclusions are equivocal.

Table 2

Relationship between Inside-Outside Directors and Company Performance

Study (Year)	Dimension	Performance Indicators	Sample	Major Findings
1. Vance (1995)	Insiders vs Outsiders	Net income Sales Owners' equity	200 major manufacturing firms (1925-1950)	Insiders' representation was positively associated with

				financial performance
2. Vance (1995)	Insiders vs duality	Net income Sales Owners' equity	103 major industrial firms (1925-1963)	Insiders were conducive to effective financial performance
3. Schmidt (1975)	Insiders vs duality	Long-term debt Dividends Current ratio	80 chemical companies (1962-1963)	No relationship with financial performance
4. Cochran et al. (1985)	Insiders' representation	Operating income Sales ROE ROA Excess value ratio	406 *Fortune 500* in 1982	Insiders' ratio was positively associated with financial performance
5. Baysinger & Butler (1985)	Outsiders	ROE	266 major corporations in 1970 and 1980	Companies achieved higher performance did so without having a majority of outsiders
6. Caganti et al. (1985)	Outsiders	Firm bankruptcy	21 pairs (successful/failing) of retail firms	No relationship with financial performance
7. Kesner (1987)	Proportion of insiders on board	Profit margin ROE ROA EPS Stock price	250 of 1983 *Fortune 500* companies in 27 industries	No relationship with financial performance
8. Zahra & Stanton (1988)	Outsiders' ratio	ROE Profit margin on sales EPS DPS	100 *Fortune 500* 1980-1983	Outsiders' ratio was not associated with financial performance
9. Agrawal & Knoeber (1996)	Outsiders	Performance index	400 large *Forbes 800*, 1987	Negative relationship between number of outside directors and financial performance

Various reasons have been put forth for the mixed relationship between board structure and board performance (for review, see Heracleous, 2001). Firstly, there is no consensus as to which structure leads to what level of performance (Johnson, Daily & Ellstrand, 1996; Zahra & Pearce, 1989). Dalton and Daily (1999) noted that in spite of several decades of research designed to link the relationship between board structure and company performance, results have been described as "vexing", "contradictory", "mixed" and "inconsistent". A meta-analysis of more than 40 years of data from 159 studies by these two researchers concluded that there is no evidence of a substantive relationship between board structure and financial performance, regardless of the type of performance measures, size of firm or the manner board composition is defined. Dalton and Daily also queried why there should be a relationship between board structure and firm performance in the first place. For example, they noted that while board independence is a legitimate concern, it should not be the only concern. Adding further, a board could be completely independent and at the same time, does badly in its expertise/counsel and service roles. Alternatively, in a board with a majority of inside directors, the directors may fail in its control and monitoring roles.

Johnson, Daily and Ellstrand (1996) also shared the above sentiments. They argued that the relationship between board structure and financial performance might not exist at all. Or, if there is a relationship, their magnitude may not be of practical significance. Kesner and Johnson (1990) suggested that under normal circumstances, the board is probably not an important, direct determinant of firm performance. The reason is that boards are not involved in daily decision-making.

To other researchers, board structure is as important as board process. Phan (1998) noted that having simply a structure is not sufficient. The right processes must be in place to support the structure. Analogously, Buchanan and Huczynski (1997) argued that the performance of any group/team is as much a function of its structure and process. If a group/team does not work well, one must analyze the status, power, liking, role and communication structures. If the structure is in place, one must examine which roles are performed and not performed, and how these decisions are made. The process of team-building involves intact company teams to diagnose and correct the shortcomings.

The reason for the lack of direct relationship between board structure and firm performance is due to the intervening board process. Finkelstein and Hambrick (1996) noted that a reason why board structure is unlikely to have universal impact on firm performance is that there are too many intervening processes to expect a strong direct association. As a result, the impact of board structure on firm performance may not be a one-to-one effect. Board structure may not be an important variable so long as the board performs well through cooperation, debate and discussion. Echoing the same views is Heracleous (1999, 2001). He noted that the mixed results could be due to both methodological and conceptual issues, such as lack of attention to group dynamics, high complexity of processes, variations in measurements of board attributes and performance. Johnson, Daily and Ellstrand (1996) concluded that since there is little consistency between board structure and firm performance, researchers should inspect the process by which boards may affect company results instead.

In sum, we need to study beyond previous board research which centres around board structure and firm performance. Many researchers have called for a close examination on the various intervening board processes and their effect on a board's ability to perform its roles.

HOW TO STUDY BOARD PROCESSES AS AN INTERVENING VARIABLE BETWEEN BOARD STRUCTURE AND PERFORMANCE

We will now propose the conceptual model for the study of the inter-relationship among board structure, board processes and performance.

In this section, we will firstly explain the structure of our integrative model. Next, we will define and operationalize the various variables, and put forth the propositions.

Structure of Model

Briefly, our framework suggests a direct relationship between (1) board structure and board processes and (2) board processes and board performance. Board process is hypothesized as an intervening variable between structure and performance, following the arguments by Johnson, Daily and Ellstrand (1996) and Buchanan, and Huczynski (1997). Distinctive features of our model are as follows:

Firstly, despite the unequivocal findings between board structure and firm performance, we take the view that board structure remains an important variable to study in any serious board research.

Secondly, instead of studying all aspects of board structure, we concentrate on two areas which have been extensively examined: (1) CEO-chairman duality and (2) insider/outsider directors (see Dalton & Daily 1999; Davis, Schoorman & Donaldson, 1997; Johnson, Daily & Ellstrand, 1996; Zahra & Pearce, 1989).

Thirdly, cohesiveness has also been proposed as a criterion of performance instead of process (Cartwright, 1980). For this study, we will treat cohesiveness as part of board processes, similar to arguments put forth by Guth and MacMillan, (1986), and Isbella & Waddock (1994).

Finally, for board performance, we concentrate on three main roles of directors: monitoring, service and strategy (Ong & Lee, 2000).

It is also important to point out that we have deliberately left out firm performance in this model. Firm performance is dependent on many factors. In a meta-analysis of firm performance by Capon, Farley and Hoenig (1990) using 320 published studies that attempted to relate environmental, strategic, and organizational factors to financial performance, only R&D was found to explain more than 10 per cent of the variance in financial performance (10.7 per cent). At the same time, while it is possible to equate board performance with firm performance, we do not take this approach. As noted by Frankforter, Berman and Jones (2000), studies that equate board performance and financial performance is a dubious assumption for a number of reasons. Kosnik (1987), for example, points out that a firm's financial performance is likely to be affected by a "multitude of endogenous and exogenous factors" which make isolation of board factors extremely difficult (p. 163). Further, as Mace (1986), and Lorsch and MacIver (1989) make clear, boards are not well positioned to oversee the day-to-day financial affairs of the firm.

Definition and Research Measurements

Board structure. As noted above, we propose to study 2 items of board structure. CEO-chairman duality is coded as a dichotomous variable. If the CEO of the company is also the chairman of the board, the variable is coded as 1 and as 0 otherwise. As for the second measure of the proportion of outside directors, the figure is the divisor of the number of outside directors and the total number of directors for each company. The theoretical range for this variable is 0-1. Both variables are obtained from the annual report of each listed company.

Board processes. In general, board process refers mainly to the decision-making activities of the board (Zahra & Pearce, 1989). Anderson and Anthony (1988) noted that board process pertains to the healthy and sometimes rigorous discussion on corporate issues and problems so that decisions can be reached and supported. Dulewicz, MacMillan and Herbert (1995) denoted board process as the organizing and running of board which need to be performed so that the objectives of the board can be achieved.

We identified four process variables, based largely on existing research on group and TMT studies (Amason & Sapienza, 1997: Forbes and Milliken, 1999; Jehn & Mannix, 2001). They are effort norms, conflict, presence/use of knowledge/skills and cohesiveness.

Board processes which have been identified as affecting board performance include (1) effort norms; (2) conflict; (3) presence/use of knowledge & skills and (4) cohesiveness (Amason & Sapienza, 1997: Forbes and Milliken, 1999; Jehn & Mannix, 2001). Shaw and Power (1998) argued that for a group to perform successfully, the team must be a cohesive unit with the necessary knowledge and skills to manage conflict that happens so as to establish acceptable norms for problem-solving and decision-making.

(A) Effort norms. According to Wageman (1995), effort norms are the shared beliefs of groups for the performance of a task. Effort, on its own, is an outcome of motivation and represents the vigor of individual's behaviour or total cognitive behaviour that one gives to the target task (Kanfer, 1992). Norms identify ways to channel this effort for the group task (Goodman, 1986). In essence, norms represent a set of expected behaviours. Secondly, these expectations are held and accepted by group members. Thirdly, group members will enforce the performance of the expected behaviours. Adding further, Goodman noted that norms are different from values, which are more general. Some norms emphasize on a particular situation and how the incumbent of that position should behave. Norms denote standards of behaviour for groups and larger social systems.

Lorsch and MacIver (1989) noted that directors who put in sufficient time for their duties and sought out relevant information perform better. It is because the most cited problem which directors face is lack of time to carry out their duties (Lorsch, 1997).

However, other researchers argued that time is not the only manifestation of effort. Jensen (1993) noted that time spent on meetings are not unnecessarily useful as CEOs almost always set the agenda. Herman (1981) and Mace (1986) also cited empirical evidence that there are boards which go through the motions of attending meetings and registering votes, without careful consideration of issues facing the board. In a recent study involving 307 U.S. firms from 1990 to 1994, Vafeas (1999) found that the annual number of board meetings is inversely related to firm value. This conclusion supports the proposition that monitoring of managers (equivalent to more meetings) becomes more intense after periods of poor performance.

We can measure effort norms by three different variables. First is the number of board meetings within a year. This information is available from the annual reports of listed companies. The second variable is the average amount of time per meeting, captured from questionnaire survey. The third variable pertains to qualitative statements on effort norms. We took four statements adapted from Wageman (1995), which are also proposed by Forbes and Milliken (1999). The statements include whether board members (1) perform careful evaluation of information prior to meetings and (2) conduct frequent research for companies. We proposed to add four items from the work by Shanley and Langfred (1998). Examples of these statements are (1) the amount of effort board members put into the work and (2) the degree of positive attitude towards work load. All qualitative statements are measured on a 5-item Likert-scale ranging from "Not all all" to "A great deal". Greater scores mean higher level of effort norms.

(B) Conflict. Jehn & Mannix (2001) argued that there are three types of conflicts that occur in a group which will affect group performance. They are (1) conflictive conflict; (2) affective conflict and (3) process conflict. The first type pertains to the discord relating to the performance of tasks due to different viewpoints, ideas and opinions. Dutton and Jackson (1987) reasoned that the disagreement arose because issues facing boards are generally complex and ambiguous. However, cognitive conflict is by no means bad. Amason (1996) heeded that critical analysis and discussion during meetings promote the performance of a director's control role. In such situations, CEOs/top managers may be required to take a double-look at company's strategies through modification or improvement. More importantly, the presence of cognitive conflict among directors serves as a reminder to management about the power of the board, that is, boards will not be simply "rubber stampers".

On the other hand, excessive cognitive conflict is dysfunctional. Nemeth and Staw (1989) cautioned the arousal of negative emotions and Jehn (1995) noted lower level of satisfaction. When that occur, conflict becomes personal in nature - and hence the term affective conflict. Such conflict involves personal issues such as annoyance, frustration, and irritation.

Recent studies have identified a third unique type of conflict, known as process conflict (Jehn, Northcraft & Neale, 1999). Process conflict is the awareness of controversies about aspects of how task accomplishment will proceed. More specifically, process conflict pertains to issues of duty and resource delegation, such as who should do what and how much responsibility different people should get. For instance, when group members disagree about whose responsibility it is to complete a specific duty, they are experiencing process conflict.

Empirical evidence on conflict covered in Jehn and Mannix (2001)'s research showed that moderate level of cognitive conflict has been beneficial to group performance on certain types of tasks (Jehn & Shah, 1997). Teams benefit from differences of opinion about the work being done and about ideas (Bourgeois, 1985; Eisenhardt & Schoonhoven, 1990; Jehn, 1995). Cognitive conflict improves decision quality because the synthesis that emerges from the conflict is generally superior to the individual perspectives themselves (Schweiger & Sandberg, 1989; Schwenk, 1990).

As for affective conflict, studies have shown that it is detrimental to individual and group performance, member satisfaction, and the likelihood a group will work together in the future (Jehn, 1995; Shah & Jehn, 1993). Research findings indicate that the anxiety produced by interpersonal animosity may inhibit cognitive functioning (Roseman, Wiest & Swartz, 1994; Staw, Sandelands & Dutton, 1981) and also distract team members from task, causing them to work less effectively and produce suboptimal products (Kelly, 1979; Wilson et al., 1986).

In contrast, there are few empirical studies on process conflict. In one of them, Jehn (1992) found that process conflict was associated with a lower level of group morale and decreased productivity. This is because when a group quarrels about who does what, members are dissatisfied with the uncertainty and have a stronger want of leaving the group. Moreover, Jehn (1997) found that process conflicts meddle with task content quality and often make members deal with irrelevant discussions. In a more recent study, Jehn, Northcraft and Neale (1999) found that group members who continue to debate about task assignments were unable to do their work effectively.

With regard to measurement scales, we could obtain six items to measure cognitive conflict from Smith et al. (1994), Jehn (1995) and Charan (1998). Statements include whether (1) board considers viewpoints of different members before making final decision; (2) decisions are settled amicably and (3) discussions are open and candid. The measurements are on a 5-item Likert-scale ranging from "Strongly disagree" to "Strongly agree". Higher scores represent higher level of cognitive conflict.

Measurements for affective conflict can be based on research by Smith et al. (1994). Five items, on a Likert-scale from "Strongly disagree" to "Strongly agree", are adapted. Examples are whether (1) there is personality clashes among directors; (2) members do not get along very well and (3) relationships among members are best described as "win-lose", that is, if he/she wins, I lose. Higher scores represent higher level of affective conflict.

On process conflict, four items can be taken from studies by Shah and Jehn (1993), and Jehn & Mannix (2001). These statements include whether (1) board members tend to argue on the way things are done; (2) board members often differ about the resource allocation for work and (3) there are frequent arguments about who should do what in this board. Like the first two types of conflicts, process conflict can be measured on a 5-point Likert scale ranging from "Strongly disagree" to "Strongly agree". Greater scores mean higher level of affective conflict.

(C)Presence and use of knowledge and skills. For boards to perform effectively, Ancona and Caldwell (1988) argued that directors must possess functional knowledge and skills with external networks for information gathering and problem solving. Nonaka (1994) added that it is also necessary for directors to have firm-specific knowledge and skills so as to make informed decisions. In a survey involving 339 chairmen, CEOs and other directors of U.K. companies, Dulewicz, MacMillan and Herbert (1995) identified 37 skills required of directors. The researchers further divided the required competencies into 6 groups. Carlson (1998) added that directors could benefit from each other's knowledge and experience. It aids in reducing mistrust that might initially exist when individuals do not know each other well or have not worked together.

In our review, we find that measurement for the use of knowledge and skills can be adapted from the scale developed by Dulewicz, MacMillan and Herbert (1995). Statements include whether board members adopt/use: (1) strategic perception; (2) analytical thinking and (3) result-oriented perspective. They can be measured on a Likert scale ranging from "Very low" to "Very high". Higher scores represent higher level of presence/use of knowledge and skills.

(D) Cohesiveness. On the fourth dimension of board processes, Summers, Coffelt and Horton (1988) labeled cohesiveness as the extent to which directors are attracted to each other and motivated to stay with the board. Weick (1979) noted that as boards met only periodically due to the part-time status, the relationship among directors is one of partial inclusion. Furthermore, Park (1995) argued the part-time involvement of directors is a cause for ineffective board performance. Cohesiveness thus encompasses the affective relationship of directors and represents their ability to stay and work together.

O'Reilly, Caldwell and Barnett (1989) argued that the impact of cohesiveness on strategic decisions has two aspects: generation and implementation. Generation is negatively associated with social integration and consensus in groups. Such groups value cooperation, are more cohesive and more motivated to maintain cordial relations. Consequently, this leads to higher pressure for conformity, limiting the quality of both alternative generation and evaluation of decisions. They put forth the notion that the effectiveness of strategic decision roles is positively related to social integration and consensus. Within such groups, there exists high level of cooperation, frequent communication and group identification, all of which will enhance the implementation of decisions (Guth & MacMillan, 1986). Furthermore, consensus can create more feelings of satisfaction with the decision-making process, giving rise to greater decision acceptance and commitment (Isbella & Waddock, 1994).

Goodstein, Gautam and Boeker (1994) argued that increased size can significantly reduce cohesiveness among board members. Large boards may encounter more hindrances for a consensus on decisions. Shaw (1981) for example reasoned that directors might experience lower levels of motivation and satisfaction with the lack of participation characterizing large work-groups. Gladstein (1984) added that larger teams may be more difficult to coordinate due to the large number of potential interactions among members.

We can adopt Shanley and Langfred (1998)'s indicators on group cohesiveness for use. Examples of these statements identify the extent to which (1) the board obtains feedback from the directors for decision-making; (2) the board gets help from the directors for decision-making and (3) co-operativeness of directors is present. These measurements can be on a 5-point Likert scale from "Very low" to "Very high". Greater scores hence represent higher level of cohesiveness.

Board performance. O'Neal and Thomas (1996) noted that board performance is seldom evaluated. In a study involving personal interviews with 80 CEOs and corporate directors of some 40 companies in 23 industries in the United States, they found the assessment of board performance as a unit seems more ambiguous than that for evaluating directors.

While there are various definitions of group effectiveness (Goodman, 1986), board performance has been measured along the dimension of board's ability to perform its functions (Lorsch, 1997). Koontz (1967) remarked that an effective performance is equated to clarification and execution of the main responsibilities and duties of directors. Tricker (1994) noted that for a board to be effective, it must achieve its roles to ensure continuing success of an enterprise. Similarly, Cornforth (2001) noted that given the difficulty of defining common goals for boards, the most common approach has been to identify various board functions and how well these functions are being performed.

Dulewicz, MacMillan and Herbert (1995) noted that there are four main areas which boards should see as their prime responsibility. They are: (1) vision, mission and values; (2) strategy and structure; (3) delegation to management and (4) responsibility to shareholders and other stakeholders. Tecker and Fidler (1993) found that a notable characteristic of effective boards is the ability to fulfill the assigned task, that is, where the organization is going and how it is going to reach there. Hilmer and Tricker (1990) advised that a board's effectiveness can be hindered if the important distinctions between conformance and performance roles of boards are not properly understood and the board role, vis-à-vis that of management, is not clearly defined.

With regard to specific roles, we will concentrate on monitoring, service and strategy. As argued by Johnson, Daily and Ellstrand (1996), these three roles capture directors' most significant duties and functions.

(A) Monitoring. This refers to aspects such as how CEOs are chosen and rewarded; evaluation of CEOs and company performance and how shareholders' wealth can be maximized. Westphal (1999) and Blake (1999) proposed the following areas be investiagted: the extent to which (1) board monitors top management strategic decision making; (2) board formally evaluate the performance of top company executives; (3) board defer to the judgment of top managers on final strategic decisions; (4) board developed performance objectives; (5) board required information showing progress against corporate objectives; (6) board analyzed financial information for important issues and trends; (7) board analyzed budget allocation against performance and (8) board reviewed company performance against strategic plan. Higher scores represent higher degree of monitoring by board. In addition, we can measure these statements on a 5-point Likert scale ranging from "Strongly disagree" to "Strongly agree".

(B) Service. Westphal (1999) and Dulewicz, MacMillan and Herbert (1995) have identified the following aspects to be studied: the degree to which (1) top managers solicit board assistance in the formulation of corporate strategy; (2) outside directors perform a task of a "sounding board" on strategic issues and (3) directors provide advice and counsel in discussions outside of board/committee meetings; (4) board takes into account the legitimate interests of organizations, groups and individuals (stakeholders) who have a direct interest in the achievement of company objectives; (5) board ensures the communications with stakeholders and the general public are effective and (6) board promotes the goodwill and support of relevant stakeholders. Again, these statements can be measured on a Likert-scale with 1 as "Strongly disagree" to 5 as "Strongly agree".

(C) Strategy. Following the arguments by Fama and Jensen (1983), and Tricker (1994), we concentrate on the strategy function of board in terms of direction and planning. Areas to be examined come from two sources: Zahra (1990) and Blake (1999). Items selected iclude the magnitude by which (1) board articulates a company mission; (2) board conducts internal analysis; (3) board practises external analysis; (4) board identifies strategic plan; (5) develops strategic options and selects a final strategy; (5) board are involved in strategic planning process; (6) board communicates the company's strategic direction throughout the company; (7) receives plans for the implementation of strategy from the CEO and (8) board benchmarks the strategic plan with industry comparative data. Like the measurement for the above two functions, statements on strategy can be measured on a 5-point Likert-scale, ranging from 1 as "Strongly disagree" to 5 as "Strongly agree".

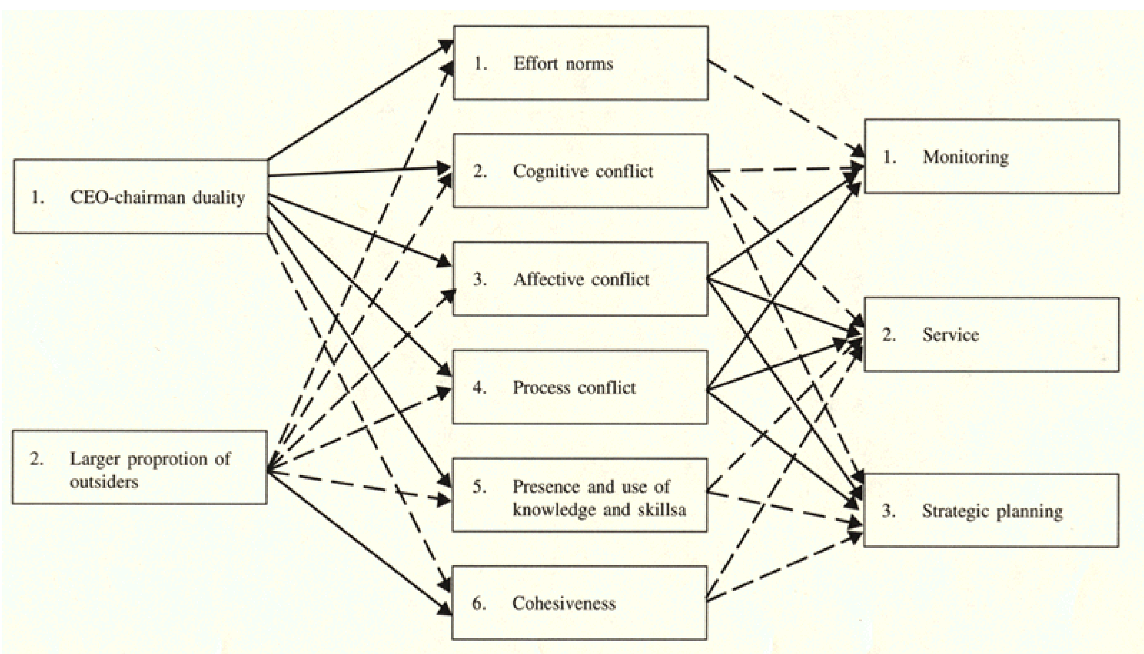
Before moving onto the next sub-section of the propositions, we will like to cover briefly the data collection methods for the variables. To obtain data on CEO-chairman duality and proportion of outsiders, we can use the annual reports of companies. For data to represent variables of board processes and performance, a questionnaire survey is recommended. To reduce the possibility of common method variance, multiple respondents will be used for the data collection (Podsakoff & Organ, 1986). The questionnaire can be sent to different persons of each company - the chairman of the board, an inside director, an outside director and the CEO (if he is not the chairman). We will then perform interrater reliability analysis to examine the reliability of responses (James, Demaree, & Wolf, 1984).

Propositions

As presented in Figure 1, the following propositions are proposed:

Figure 1

Conceptual Model between Board Structure, Board Processes and Board Performance



Board structure --> board processes. Under the agency theory, it is argued that CEO-chairman duality is detrimental to companies as the same person will be marking his "own examination papers". There should be separation of duties between the top man of a company and the top man of the board so that each could monitor one another. As argued by Zahra and Pearce (1989), the lack of board process within boards is because the majority of boards have chairs who also serve as the CEOs. This makes it difficult for boards to perform their functions. Hence, being the same person in control of both the board and the company, it can be expected that CEO-chairman duality will lead to (1) lower level of effort norms; (2) lower level of cognitive conflicts; (3) lower level of affective conflict; (4) lower level of process conflict; (5) lower presence and usage of knowledge and skills and (6) higher level of cohesiveness within the board. The hypothesis is thus:

Proposition 1: CEO-chairman duality leads to lower level of effort norms, lower level of cognitive conflicts, lower level of affective conflict, lower level of process conflicts, lower presence/usage of knowledge/skills and higher level of cohesiveness.

Similarly, agency proponents put forth that outsider directors are more likely to show objectivity in their deliberations and are willing to consider diverse groups in making their decisions. Because of diversity, it may be possible that there could be a higher level of affective conflicts and lower level of cohesiveness within the board. Similarly, as outside directors do not meet as often as inside directors, some procedures for task will be confusing and hence there could be a higher level of process conflicts. On the other hand, with outsiders on the board, task performance issues become more urgent and hence a higher level of cognitive conflict may result accordingly. In the same manner, a higher level of effort norms will occur as members are forced to do a better job with the presence of diverse personality and backgrounds of different members.

Strategic choice proponents also argued that outsiders will bring in more skills and knowledge to the company. The presence of a majority of outsiders is thus presumed to be more conducive to debate and discussion of a firm's mission, goals, and appropriate strategy. Such debates enlarge the basis of expertise, force management to consider a wider range of options and clarify constraints within each strategy implementation. As argued by Hillman, Cannella and Paetzold (2000), outside directors bring with them a different set of skills and knowledge to the firm. With a higher proportion of outside directors, there would accordingly exist a larger percentage of business experts (e.g. directors of other firms), support specialists (e.g. lawyers and bankers) and community influentials (e.g. political leaders and university professors) in the firm. In other words, a larger proportion of outsiders in a company is likely to imply higher presence/usage of knowledge/skills. The propositions are:

Proposition 2: A higher proportion of outside directors leads to lower level of cohesiveness.

Proposition 3: A higher proportion of outside directors leads to higher level of effort norms, higher level of cognitive conflicts, higher level of affective conflict, higher level of process conflicts and higher presence/usage of knowledge/skills.

Board processes --> board performance. A strengthening of effort norms will make directors more aware and willing to monitor the performance of the board/company. Similarly, a higher level of cognitive conflicts, which are task-oriented, will likely to make directors to perform the three roles of monitoring, service and strategy better.

On the other hand, affective conflict, due to interpersonal differences, and process conflicts, due to discord over task allocations, can be expected to be dysfunctional. Consequently, board ability to perform their roles may be met with obstacles. With more skills and knowledge within the board, there should be more service and strategic planning outcomes arising from board activities. A cohesive board will also lead to a higher level of service and strategy for the company. Hence, we propose that

Proposition 4: A higher level of effort norms leads to higher level of monitoring.

Proposition 5: A higher level of cognitive conflicts leads to higher level of monitoring, service and strategy.

Proposition 6: A higher level of affective conflicts leads to lower level of monitoring, service and strategy.

Proposition 7: A higher level of process conflicts leads to lower level of monitoring, service and strategy.

Proposition 8: A higher presence/usage of knowledge/skills leads to higher level of service and strategy.

Proposition 9: A higher level of cohesiveness leads to higher level of service and strategy.

CONCLUSION

Past literature on board research has centred around board structure and company performance. Over the years, empirical studies do not reveal a conclusive relationship between these two variables (Dalton & Daily 1999). As a result, exploration for new areas of research on boards is much needed (Forbes & Milliken, 1999; Johnson, Daily & Ellstrand, 1996; Pettigrew, 1992).

Until lately, the literature on board processes is lacking. The reason for insufficient empirical work on board processes is possibly due to the difficulty of gaining access to boards. On the other hand, we believe that such a limitation should not be an excuse for not developing a working model for conceptual analysis. In this paper, we propose a conceptual model and show a working example of various constructs.

We have developed a new conceptual model to study the relationship between board structure and board performance, with board processes as the intervening variable. Empirical work is needed to test and verify such a model.

A basic premise of our model is that whether and how a board works or otherwise is more important than simply focusing on what the board structure is. While it can be argued that our conceptual model is grounded in the study of group effectiveness (Forbes & Milliken, 1999), we do not measure performance in a vacuum. Based on the extensive review on boards' roles by Ong & Lee (2000), we contend that different dimensions of board processes will affect different performance outcomes. For the latter, three board functions are put forth for investigation: monitoring, service and strategy.

Secondly, since company board is essentially a group phenomenon, we expect group dynamics, as a process variable, to be of critical importance. In this paper, we have identified four dimensions of board processes - effort norms, conflict (which we subdivide into cognitive, affective and process) , skills and knowledge of directors, and cohesiveness. Of related interest is research in top management teams (TMTs). Very similar to boards, Finkelstein and Hambrick (1996) denoted three central conceptual elements of TMT: composition, structure and process. TMT composition deals with the degree of heterogeneity of members; structure deals with roles of members and relationships among these roles; while process concerns social integration and the level of consensus among members. The use of group dynamics in studying board processes could further provide a new avenue for more research agendas.

Finally, on a more practical note, understanding the different dimensions of board processes could lead to better utility of boards to maximize their contributions. To the shareholders at large, they might be eager to know how the dynamics of board processes impact on board and hence company performance.

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