

# **Corporate Governance: Determinants of Effective Decision Making**

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## **Abstract**

Corporate boards continue to fail and as a consequence a plethora of legislation and best practice have been put in place in an attempt to halt ineffective forms of governance. Identifying characteristics of boardroom decision-making as being either independent process or behaviour variables provides a fresh insight into what determines effective governance. Although it is acknowledged that qualitative research is perceived in organisational sciences as possessing academic weaknesses, corporate governance literature points out that there is a shortage of such empirical research relative to the inner workings of boards. This study is the result of directly observed board deliberations under normal working conditions and analysed using applied qualitative methodology. When supported by quantitative techniques the research findings and interpretations made are, in the traditional sense of research methodology, 'valid' and 'reliable'. This case study provides a descriptive view of board activity firstly by analysing process and behaviour occurring within a board and secondly, by aligning determinants of decision-making with board effectiveness.

## **Keywords:**

Corporate Governance

Decision-making

Leadership

## **Research Outline**

Issues associated with failure and its cyclical nature continue to attract the attention of the academic community and regulators around the world (Roe, 2004). Attempts to halt corporate failure has seen the introduction of, and emphasis on a wide range of compliance obligations (Jaffe & Hinton, 2004; Lockhart, 2004; Matheson, 2004). In spite of these the repetitive nature of failures suggests that the theoretical debate and economic reforms, introduced since the 1993 American Wall Street Crash, have not been able to halt periodic and serious concerns raised in the way boards govern. Instead as Joseph Healey (2003) argues persuasively in his book 'Corporate Governance and Wealth Creation in New Zealand', most corporate boards focus overly on compliance and as a result pay insufficient attention to performance.

Although not all organisations suffer failure, organisations that survive may demonstrate decision-making behaviours and processes that have the potential to lead to failure or success. Yet such behaviour and process appear to remain undetected. It therefore follows that the determinants of success are not well understood.

Concern for failure and increasing regulatory measures have come at a time when a board's role appears to be expanding. Ownership of the strategic function, absent prior to the Cadbury Report (Pye, 2000), has effectively extended the role of boards from being merely overseers and controllers of managerial action for the betterment of owners to that of strategic leaders responsible for adhering to the compliance regime as well as for the organisation's performance now and in the future (Hambrick, 1987; Hambrick, 1989). Achievement of both these dominant yet diverse activities is a challenge facing boards. As Lockhart (2004) points out, ameliorating compliance can be detrimental to strategic governance and effective governance.

## **The Research Problem**

Understanding the determinants of effective decision-making has both practical and academic value. Firstly it captures the direction many scholars (e.g., Pettigrew, 1993; Daily, Dalton & Cannella, 2003; Pettigrew & Nulty, 1998) have been advocating governance research should take. Secondly, when studying a board's decision-making framework the intervening behavioural and process variables exhibited can assist other boards to evaluate their practices and processes. Likewise in identifying the determinants of effective decision-making and how a board operates, something that Pettigrew (1990) has encouraged researchers to do, assists in overcoming the widening gap initially recognised by Tricker (1994) between the contributions of theory and what practitioners actually do. Thus the research question became: "What are the determinants of effective boardroom decision-making". From this four secondary research questions emerge:

1. What types of decisions does an effective board make?
2. What decision-making characteristics does an effective, compared with an ineffective board, exhibit?
3. How best can effective decision-making determinants be calibrated within a boardroom environment?
- 4(a). To what extent, if at all, do behavioural components align with current theory?
- 4(b). Which theoretical model(s) best explains how decision-making takes place in a boardroom?

The premise on which this study has been advanced was that the areas of activity and accountability adopted by a board define the breath of its governance role. Thus its role is reflected through the tasks and the responsibilities it prescribes for itself. In turn the delivery process it adopts and the interventions that take place illuminate the board's decision-making

characteristics. When performance of one board is compared with that of other boards process and behavioural determinants of effective decision-making emerge. It may be claimed that interviews or questionnaires conducted outside of a boardroom would illuminate some decision-making processes. However, as Innamì (1994) asserts, it is through analysing group behaviour that effective boards can be differentiated from ineffective ones. Although boardroom decision-making is viewed as ripe for exploration (Pettigrew, 1990) such research demanded direct observation to gain a clearer insight into boardroom process and behaviour.

A case study, defined by Anderson and Arsenault (1998:293), being an “empirical investigation...[and]...a qualitative form of inquiry that relies on multiple sources of information was viewed as the most appropriate way. Stake, cited in Denzin and Lincoln (2000) suggests an instrumental case study as suitable for gaining a greater appreciation of activity such as boardroom decision-making as the case itself would become of secondary interest, the sensitivities associated with boardroom decision-making may reduce the fear of any competitive information leaking and the approach lends support to the primary function being to study decision-making as it occurs in practice by working with only one company. By this means the end product would be an extensive description of the decision-making phenomenon, enriching, in turn, the readers’ understanding.

Inherent in such a methodology were acknowledged difficulties. Lack of direct access to a board has previously meant that authors of the many studies into boardroom activity have in the main employed a quantitative methodology, collected data through extensive use of secondary data with a significant number employing archival data-gathering techniques (e.g., Finkelstein & Hambrick, 1996), expressed normative views of board behaviour (Cutting & Kouzin, 2002; Forbes & Milliken 1999; Sundaramurthy & Lewis 2003) and/or examined remotely the

outcomes of decisions for which a board is directly or indirectly responsible. Such empirical work focused on a number of critical governance matters, for example board composition and structure, structural independence, leadership, and financial performance (Leblanc, 2001). There has also been some studies into corporate governance that rely, at least in part, on primary data (e.g., Pearce & Zahra, 1991; Daily, 1995; Zahra, 1996; Zahra, Neubaum & Huse, 2000) collected outside the boardroom that have looked at board structure, process, and effectiveness (Bradshaw, Murray & Wolpin, 1992; Bradshaw, Murray & Wolpin, 1996; Green & Griesinger, 1996). These can mostly be found in non-profit literature. In spite of access difficulties Samra-Fredricks (2000) observed and captured the linguistic attributes.

The research problem presented two motivations and literature another. Firstly, corporate governance research had been somewhat deficient in studying decision-making in action yet a descriptive analysis has the ability to add to the existing work on corporate governance. Secondly, the determinants of effective decision-making have value to both practitioners and academics. Thirdly no single theoretical reference defines a board's role.

### **Literature Review**

A plethora of literature is evident in decision-making, leadership and corporate governance, but there is little commentary that brings them together. A review of this literature gave rise to a number of themes. The first theme has attracted considerable research and been studied from a variety of diverse perspectives (e.g., Cosier, 1978; Schweiger & Cosier, 1980; Schweiger, Sandberg & Ragan, 1986; Schwenk, 1990). The original rational model, built on the premise that individuals obey the substitution axiom, has been replaced with Simon's (1957) bounded-rationality. Thus laws of chance embedded in the rational model have been substituted with judgemental strategies and heuristics of bounded-rational decision-makers (Simon, 1947).

Extensive research exists on the effectiveness of work groups in organisations (Gladstein, 1984; Gist, Locke & Taylor, 1987; Bettenhausen, 1991; Campion, Medsker & Higgs, 1993; Cohen & Bailey, 1997). Considerable research has also taken place as to disagreement and harmony (Drucker, 1962; Harvey-Jones, 1988), satisfaction with the decision (Van de Ven & Delbecq, 1974; Nemiroff, Pasmore & Ford, 1976; Schweiger & Leana, 1986; Schweiger & Sandberg, 1989), commitment (Locke & Schweiger, 1979; Bass, 1981; Heath & Gonzalez, 1995), turnover (Maier, 1967), job satisfaction (Locke, 1976), limitations on group process and process losses (Janis, 1972; Latane, Williams & Harkins, 1979; Janis, 1983), process gains (Argyris & Schoen, 1974; Hackman & Morris, 1975), and conflict (Maier, 1967; Janis, 1972; Schmidt, 1974; Janis & Mann, 1977; Schweiger & Sandberg, 1989; e.g., Amason, 1996; Finkelstein & Mooney, 2003). All impact on team effectiveness in ways that can bring either healthy interaction or accentuate collective defenses. In recent years considerable enquiry and research into decision-making has been directed towards understanding the optimal outcomes (Mintzberg & Waters, 1990; Pettigrew, 1990; Chia, 1994; Dutton, Dukerick & Harquail, 1994; e.g., Amason, 1996; Forbes & Milliken, 1999; Bierly, Kessler & Christensen, 2000).

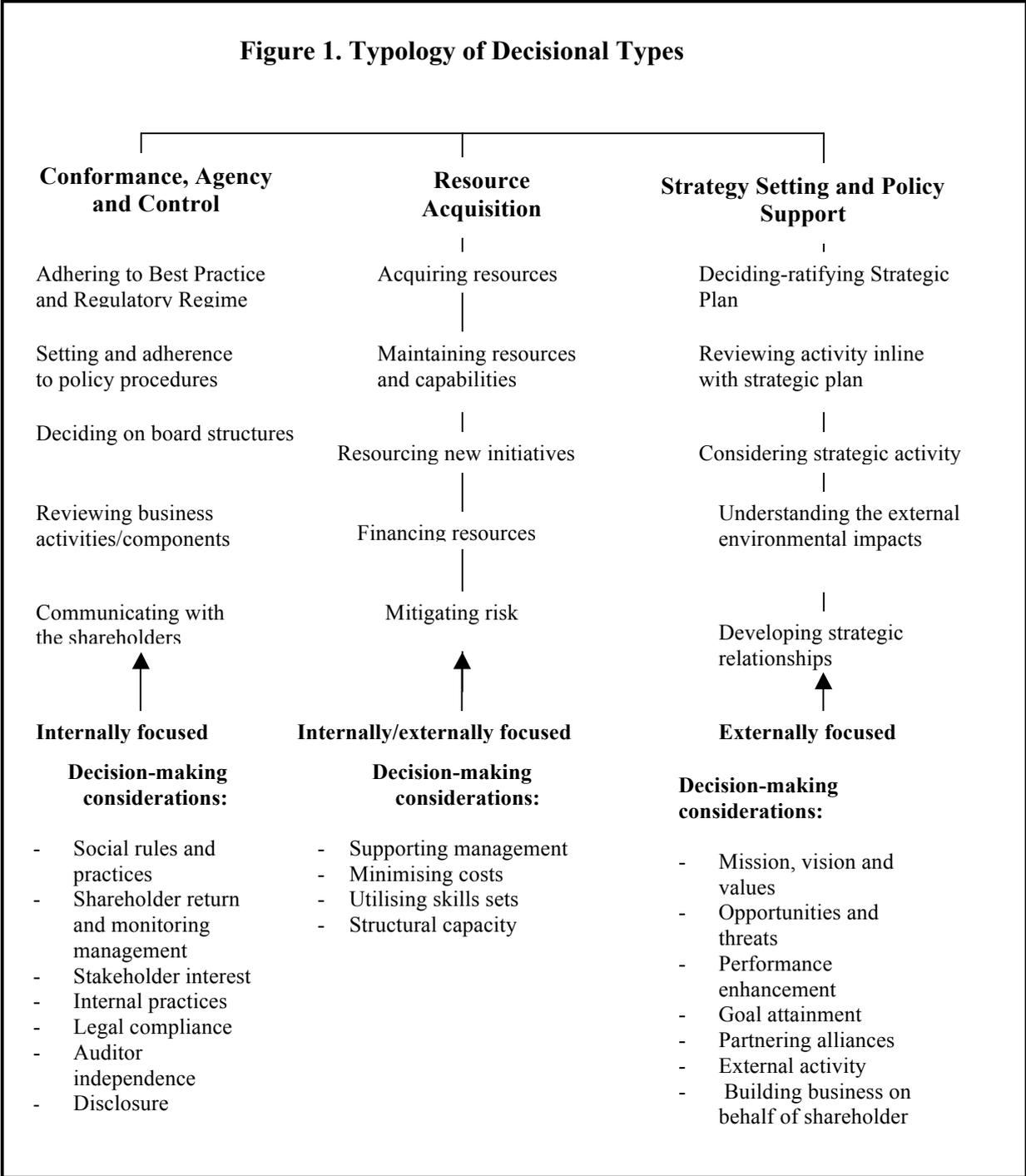
Consistent arguments run through most decision-making literature. The first is *choice*. The second is the well-established heuristics of *frames*, *framing* and the *framing effect*. Linked is the third. Under the prospect theory (Kahneman & Tversky, 1979), individuals tend to be risk adverse relative to decisions framed as choices among gains but tend to be risk-seeking relative to decisions framed as choices among losses. An extension of the prospect theory, the *threat rigidity* hypothesis (Staw, Sandelands & Dutton, 1981; Ocasio, 1995) presents a way to examine how an individual responds to risk by purporting that, when a decision-maker is faced with a need to make a decision where the risks are not clear, the individual fails to consider alternatives because the risk is not understood. The same pattern of behaviour is said to occur

when there is a high degree of ambiguity associated with the outcome (Ocasio, 1995). Considerable empirical evidence supports these theoretical perspectives (Chattopadhyay, Glick & Huber, 2001).

The notion of process embraces the ideas of *anticipatory*, *consequential* and *optimisation* (March, 1988) and rests on an empirical foundation of considerable dimension (e.g. Guetzkow, Kozmetsky & Tyndall, 1954; Cyert & March, 1956; Dill, 1958). It has been seen as a way to describe *managerial action* (Edwards, 1954; Payne, 1982; Stevenson, Busemeyer & Naylor, 1991; Chia, 1994; Beach, 1997), or the process of action. There is also significant decision-making research built on the premise that decision-making flows in “a stream of action” (Mintzberg & Waters, 1990:5), or logical phases (Cutting & Kouzmin, 2002). The perspective of process is the presumption that *decision* and *action* can face challenges. Chia instead refers to decision-making as a change mechanism in which *thought* is the initiator or the *controller of action*, and *cause* and *actions* are the *effects* or outcomes of the decision (Chia, 1994:788). In identifying effects and impacts vast majority of social psychology research has taken place with ad-hoc groups of college students in a laboratory environment (Brower, 2002). For instance, satisfaction has primarily been tested in laboratory research using brainstorming (Osborn, 1957), Delphi (Dalkey & Helmer, 1963; Hall & Watson, 1970), and nominal group or survey techniques (Van de Ven & Delbecq, 1974; Nemiroff, Pasmore et al., 1976; Rohrbaugh, 1979; Schweiger & Leana, 1986; Schweiger & Sandberg, 1989; Roth, 1994).

A further theme emerges that assimilates the types of decisions a board makes. The compliance regime may be increasing board accountabilities however when strategic obligations are added a board’s role could be viewed as a continuum. At one end the traditional perspective of approving, monitoring and reviewing (a task that reflects compliance with legislation and best

practice), and at the other end the active participation of formulating and initiating strategic initiatives (Ingley & Van der Walt, 2001). Combine this with the emerging theoretical perspective advocates that a board’s role may incorporate a combination of decisional types as outlined in Figure 1.

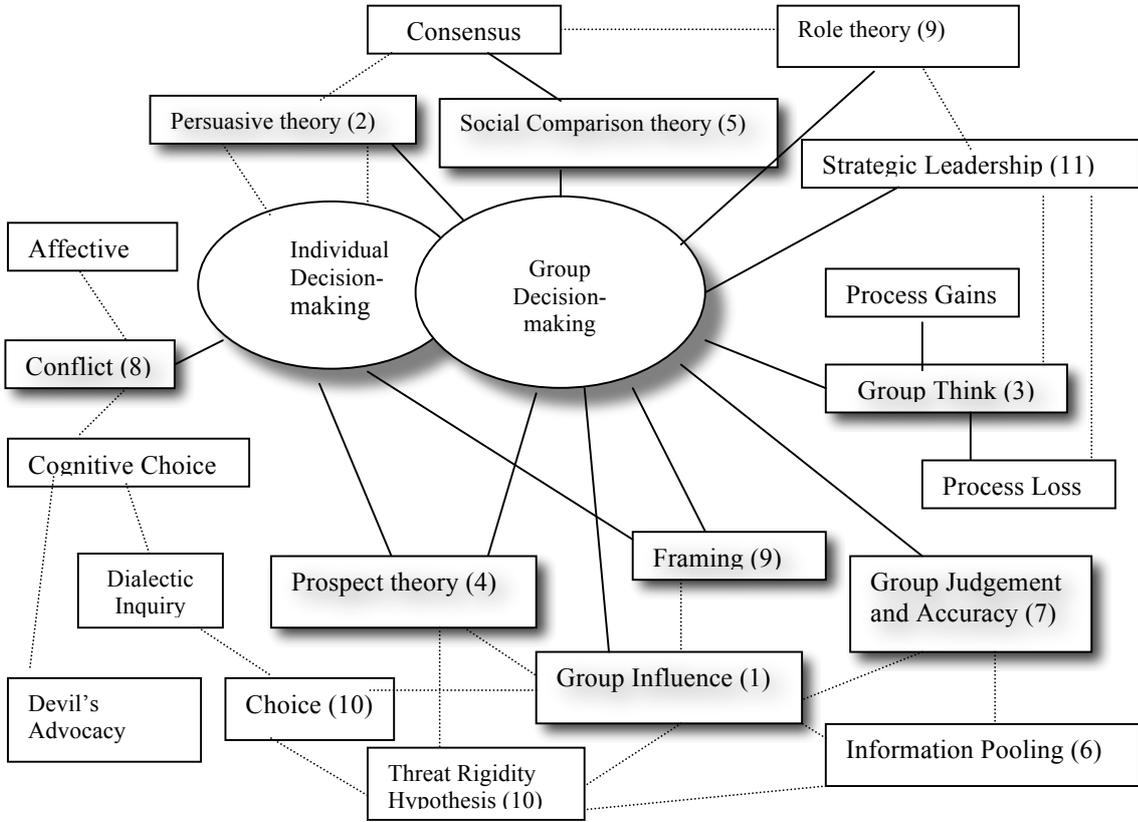


Social psychologists assert that group members bring unique experiences, differing sets of skills, expectations, beliefs and knowledge to group discussion (Stevens & Campion, 1994). Thus a structural theme relates to the composition of a board by taking into account the size, diversity of collective skill-sets, knowledge and experience present in addition to access to information. These input variables prescribe the shape of the decision-making platform. Yet skills, competencies, abilities and knowledge of board members, when considered in line with extending corporate governance obligations suggests a mix that may be quite different from the more narrow agency structured board. This is because responses required to meet the compliance regime is more compatible with deterministic principles associated with rational (Bernoulli, 1793), intellective (Laughlin, 1980; Innami, 1994), and principled (Fisher & Ury, 1981) decision-making as opposed to boundedly-rational (Simon, 1947; March & Simon 1958), judgemental (Laughlin, 1980; Innami, 1994), or evidence-driven behaviour (Hastie, Penrod & Pennington, 1983). This latter group is more compatible with strategic decision-making. Groups are said to be more effective, innovative and capable of making higher-quality decisions when composed of individuals possessing a variety of skills, knowledge, abilities and perspectives (Bantel & Jackson, 1989; Murray, 1989).

Another theme reflects the level of effort each director brings to the task and the influence each exerts over the behaviour of other board members. Literature illuminates varying contributing theories that influence and shape the way a group can behave, how individuals make a judgement and how cohesiveness is formed. Likewise group diversity as asserted by Janis (1972; 1983) appears critical to quality group decision-making because it provides a reservoir of behaviours and capabilities that add to the decision-making process (Bantel & Jackson, 1989) leading to gains (i.e. Argyris & Schon, 1974; Hackman & Morris, 1975). Conversely, in its absence groups often experience process loss, which limits a group's ability to make sound

decisions. Similarly cohesiveness with the interactive process also emerges as a key issue. Cohesiveness is not only shaped by agreement, consensus and disagreement, it is also crafted by the way the decision-making process is facilitated. Although there is no consensus as to their impact, it is thought that these components can create or reduce process loss. Some contributory theories are set in the following figure.

**Figure 2. Contributory Theories to Decision-making Behaviour**



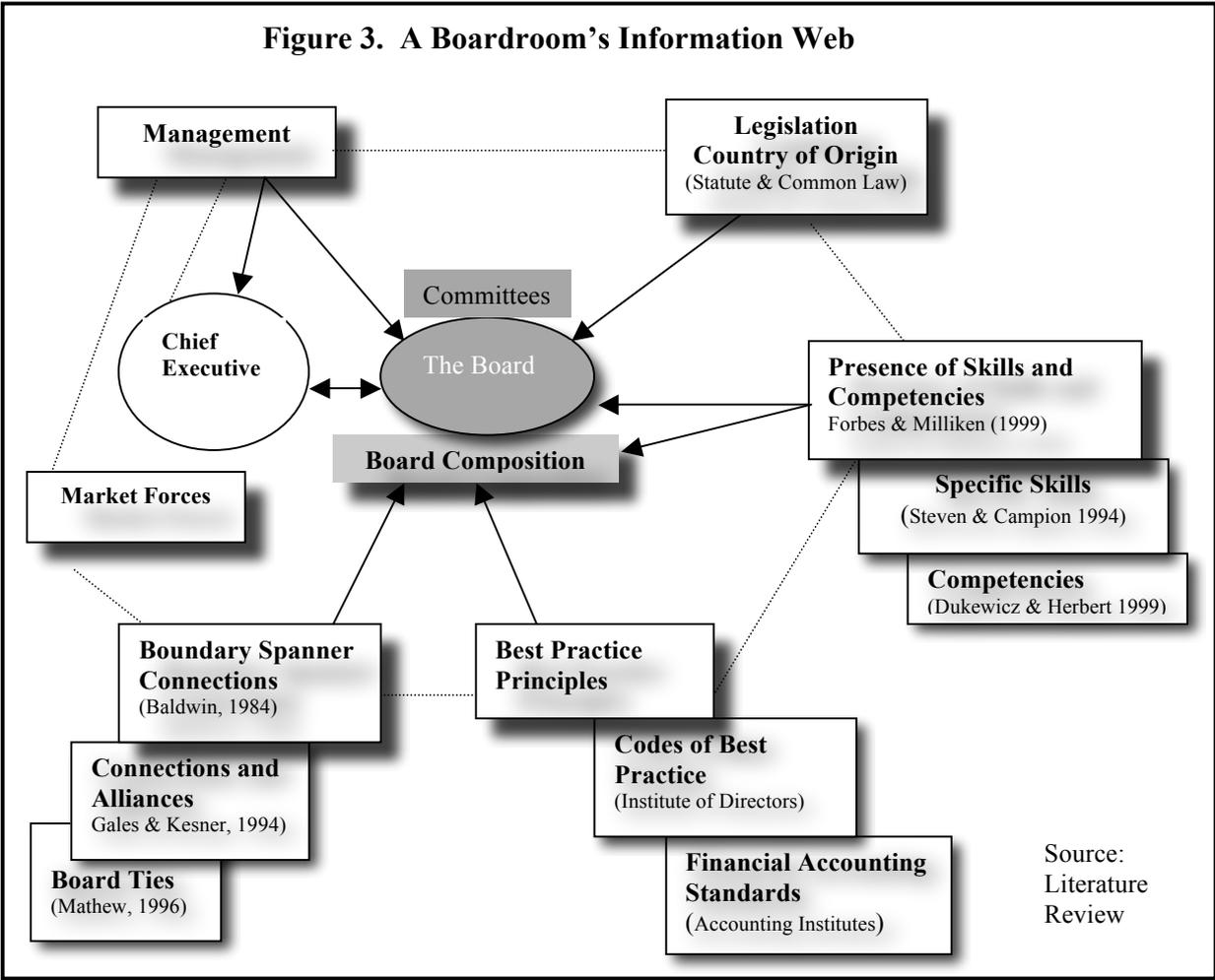
**Source: Constructed from a review of decision-making literature**

- (1) Group Influence: Deutsch & Gerald (1955)
- (2) Persuasive Argument theory: Myers & Bishop (1971)
- (3) Group Think: Janis (1972)
- (4) Prospect Theory: Tversky & Kahneman (1974)
- (5) Social Comparison theory: Burnstein & Vinokur (1975)
- (6) Information Pooling: Burnstein & Vinokur (1977)
- (7) Group judgement and Accuracy: Hastie (1986)
- (8) Conflict: Amason (1996)
- (9) Role theory: Belbin (1981)
- (10) Threat Rigidity theory: Straw, Sandelands & Dutton (1981)
- (11) Strategic Leadership: Hambrick & Pettigrew (2001)

As a collective decision-making entity the board is its organisation’s strategic leadership team (Hambrick & Mason, 1984) or the body in command of the organisation. Yet, board decisions

require members of the board to share their personally held knowledge and judgement on topics or matters with fellow board members (Hambrick & Mason, 1984). Aligned with leadership is the role an individual plays within a group. The thrust of role theory is that each member of a group has a preconceived notion with regard to what should take place, and a perception of how his or her peers and superiors ought to act (Weick, 1995). Although roles have been extensively researched (Steiner, 1972; Hackman & Morris, 1975; McGrath, 1984; Hackman, 1987) role theory still leaves questions unanswered, such as: who leads, how is the board’s decision-making process shaped and how and who makes decisions?.,.

Sources of information emerge as a fifth theme, particularly in respect to the changing board composition and the decreasing number of executive directors on boards.



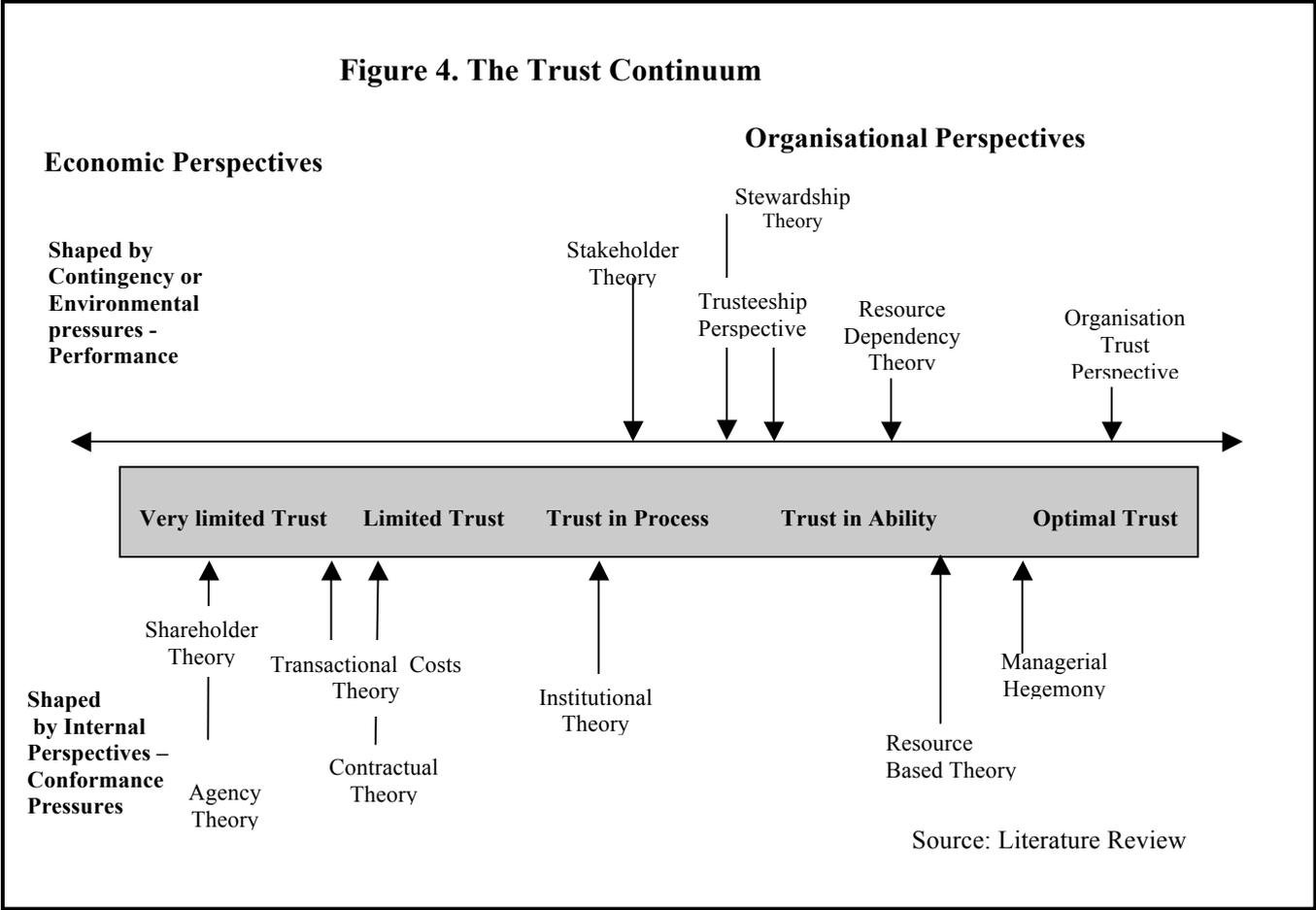
Although components have been discussed in literature what is not known is how these influence the decision-making process or how they shape the decision that is arrived at. This suggests while components that constitute effective decision-making are being acknowledged, the way these intervene and impact on board outcomes is yet to be identified in governance literature.

**Governance Theories**

No fewer than twelve schools of academic thought have been used as theoretical references from which to view or put forward a notion relative to governance (as listed below). After reviewing much of the literature relating to governance theories four interpretations involving a collection of theoretical propositions were found to apply. The first interpretation adopts the view that corporate governance theories are either ‘economic’ or ‘organisational-based’ in nature (Prowse, 1994; Learmount, 2002).

<b>Classification</b>	<b>Emphasis</b>
<b>Economic-based</b>	
Agency theory: Berle & Means: (1932)	Internally focused overseeing management
Shareholder theory: Fama and Jensen: (1983)	Shareholder maximisation
Contractual perspective: Alchian & Demsetz (1972); and Jensen & Meckling (1976)	Contractual arrangements and business development
Transaction Cost theory: Williamson (1975)	Minimising transactional costs
<b>Organisational-based</b>	
Stakeholder theory: Freeman (1984)	Parties with legitimate stake in organisation
Institutional theory: Selzick (1957)	Social rules and accepted conventions
Resource Dependency theory: Pfeffer (1972)	Dependency of directors
Managerial Hegemony theory: Mace (1971)	Professional management running the organisation
Stewardship theory: Donaldson (1990)	Strategic leaders are stewards of firm’s assets
Trusteeship theory: Kay & Silberston (1995)	Role and responsibilities align with trustee activity
Organisation Trust theory: Powell: (1996)	Social structure of cooperation
Resource-based theory: Wernerfelt: (1984)	Knowledge, commitment and access to expertise

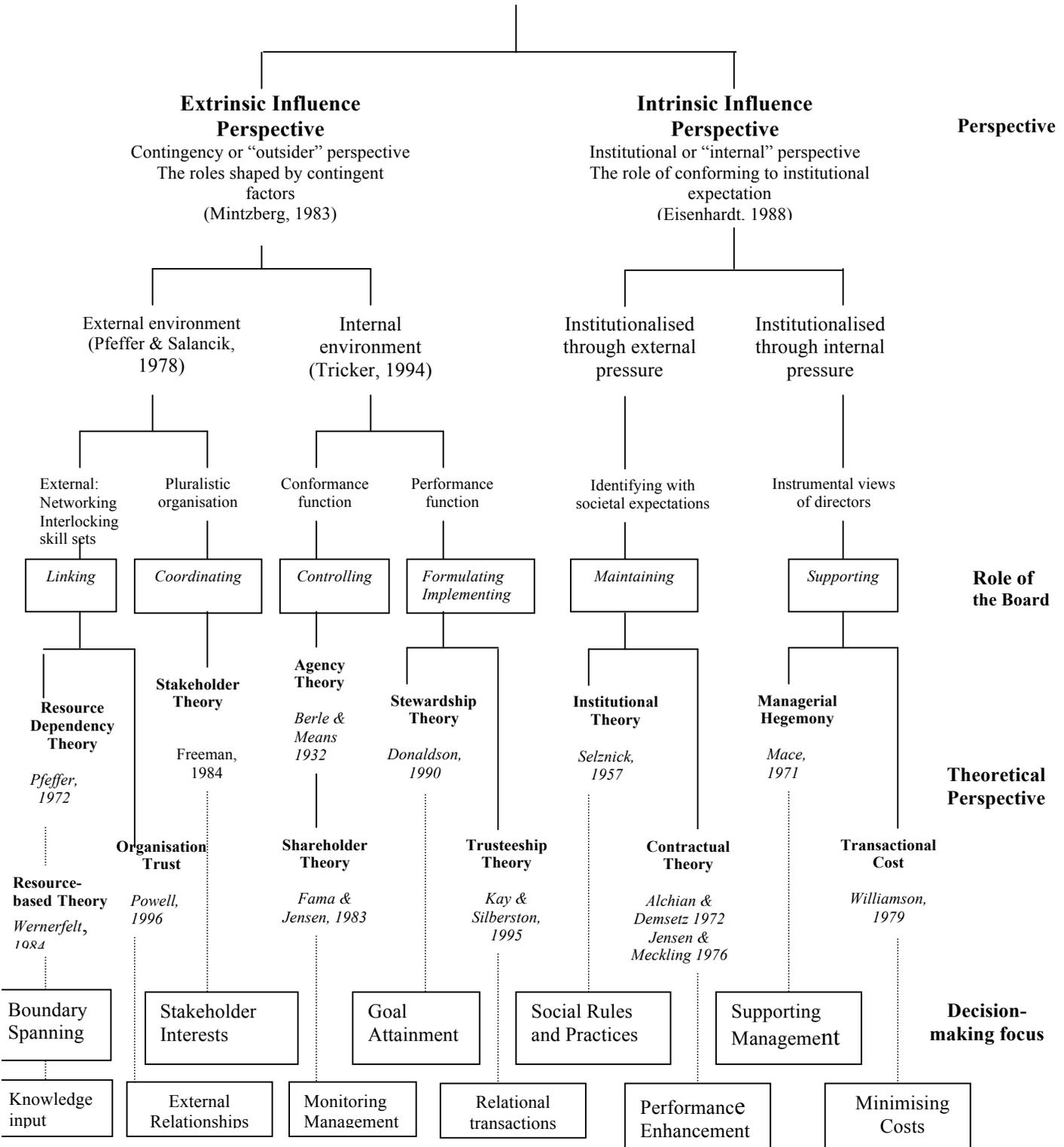
From the literature reviewed this same set of theories revealed the level of trust between the varying parties as denoted within each theoretical perspective. The following figure shows these as a point on a continuum.



The third interpretation builds from the work of Judge and Zeithaml (1992) and Hung’s (1998) typological parameters using the three functional areas of a board as proposed by Johnson, Daily and Ellstrand (1996), and show the effect of extrinsic and extrinsic environments and the behavioural approaches associated with each.

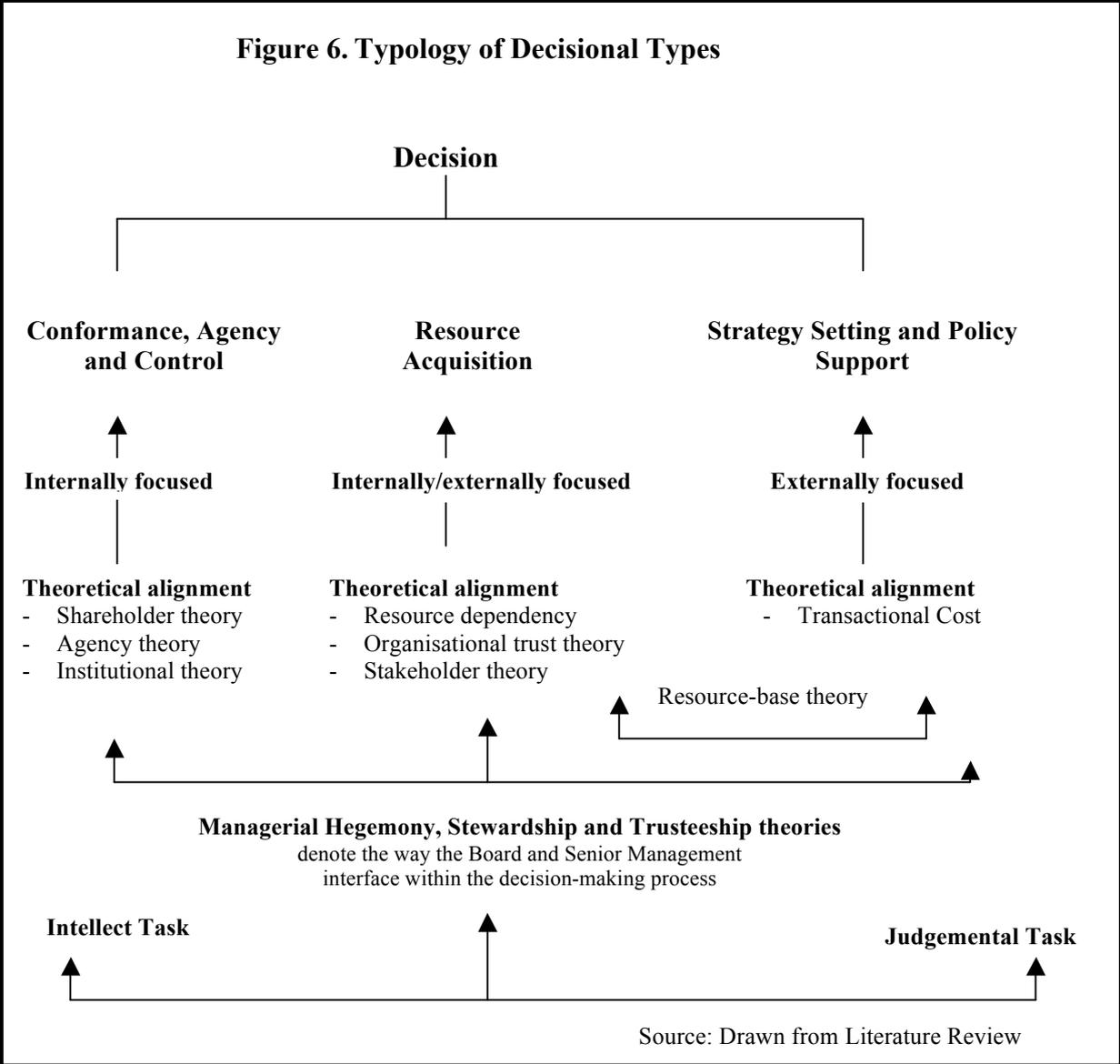
**Figure 5. Typography of a Board’s Decision-making Role**

A board’s involvement in decision-making process  
(Judge & Zeithaml, 1992)



Adapted from Hung, H.A. (1998). Typology of the theories of the roles of the boards.  
*Corporate Governance:International Review*, 5(2),105.

Similarly types of decisions made can be aligned with many of the theoretical perspectives using the decision typology provided earlier.



Depending on the theoretical proposition, the role of a board encapsulates differing decision-making obligations. Given the rational and bounded rational nature of some information, the type of decision being made, and the differing role perspectives boards may carry out differing tasks and therefore display differing characteristics.

## **Methodology**

The outcomes derived from one data set gathered during a single case study were compared with perceptions held by board members serving on the corporation board studied with the 28 other boards that the same set of directors serve, or had served, on. This allowed comparisons to be made.

In total 3133 speaking episodes notated from 50 hours of boardroom observation and recording formed a second data set. The collection of notated data drawn from individual *speaking episodes* was entered into a series of Excel spreadsheets. Spreadsheet cells recorded the response or reply and corresponded with the speaker's identification code, the topic under discussion, the meeting reference and order of proceedings. Acknowledging that qualitative research is typified as being inherently less reliable than quantitative research a rigorous two-step verification process (cross referencing notations with those taken by the company's Legal Counsel followed by independent professional auditor verifying the data match). Frequency tables were built using a single coding mechanism. After all entries were entered eight categories of behaviour emerged. These were then aligned with the three primary decision-making categories: agreement, inquiry and disagreement. This approach was seen as important as it allowed a variety of responses to be considered independently and the categories to emerge according to what was said/contributed. Two months later the exercise was repeated and results compared. Where an entry differed a further analysis was carried out. Difficulties arose when the speaking episode could be classified as fitting into one or more types. Where this occurred the topic under discussion was revisited and the overriding contribution made to the topic was considered to be the principal type. Through ethnostatistic analysis qualitative data was quantified. Coded observations were viewed as 'activity pulses' present in meetings.

These graphic depictions when broken down into decisional types allowed patterns relative to each different type to be compared.

From a set of time series drawn from the second data set comparisons of the different types of board meetings were made. Demographic analysis was achieved by aligning the coded board members' behaviour with their skill sets, competencies, outside connections and experience. The process also facilitated the generalisation of categories of meanings as they emerged from the data.

From the first representative set of data, five decision types (strategic initiatives; resource acquisition; review of business; compliance issues; and crisis resolution), four decision outcomes (adopted or endorsed; noted and received; challenged and refocused, deferred, no decision, decision deferred, or more work required; and declined) and eight primary behavioural categories (agreement; providing information; gathering information; influencing; giving a personal opinion/perspective; pressuring; dialectic inquiry; and positioning) were identified.

Information collected, through interviews with each director, indicated where each of 29 boards referred to sat along a continuum. A 0-7 Likert scale, with 0 being a totally ineffective board and 7 being a highly effective board was used for this purpose. From this compilation the characteristics of each board were linked to a specific position on the scale (according to the directors perception) allowing two broad categories to be identified: ineffective and effective. The subject board was referred to by all directors, and in this way become the common point of reference. Data collected through this grounded methodology when transcribed produced a two-fold outcome. Firstly, the experience on and perceptions of 29

boards (collective from board members who had served on more than 64 private, public and governments boards) was gathered. Secondly, it allowed a comparison to be made against the observed board. In the view of all board members the board studied was classed as a highly effective one.

### **Interpretation of the Findings**

From the qualitatively-generated information ascertained from each director, who collectively had served on over 60, mainly New Zealand, boards and the described behaviours and processes the conclusion drawn suggests that fewer than 20 per cent of boards in New Zealand can be described as being highly effective, although nearly 59 per cent are effective (effective and highly effective). In spite of these findings, only 17 per cent were perceived as being highly effective.

From the analysis of interviews emerged six dominant themes: the role of the board; composition of the board; skills and knowledge of directors; individual behaviour; the working relationship between the chief executive and chair, and informational sourcing and sharing. The high statistical mean relative to effectiveness applicable to the board being studied provided assurance that at the time when this research was conducted, the study board was perceived by board members as being an effective board. The inference drawn from director interviews was that less effective boards demonstrate quite different characteristics.

### **Role of a Board**

Data collected and quantified through frequency tables illuminated that strategic initiatives (strategic setting and resource acquisition) comprised a significant portion of the agenda, reinforcing that strategy setting, and leading policy matters are a board's real purpose. Support

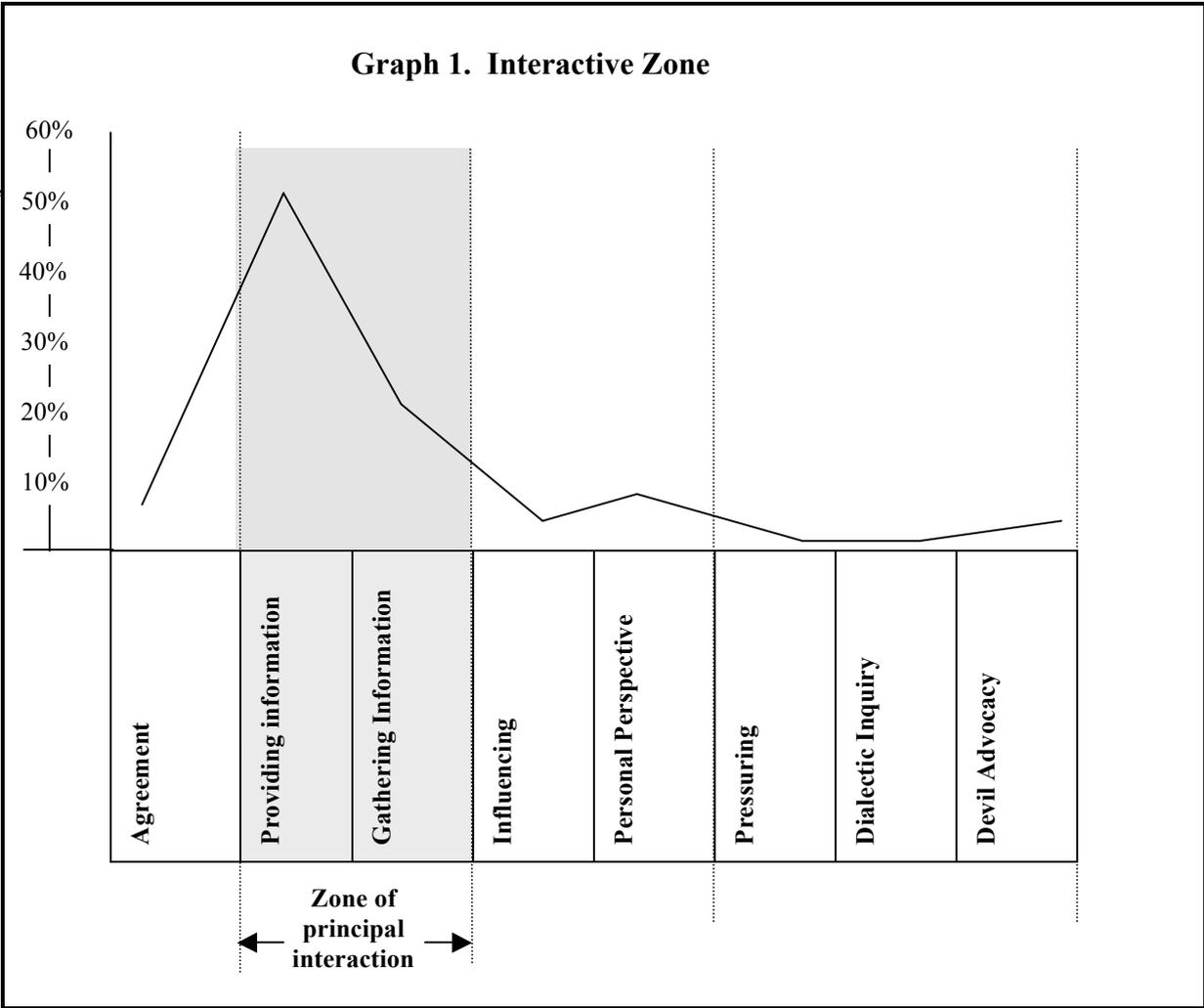
for this notion derives from the percentage of speaking episodes (75 per cent) dedicated to these activities. Similarly the dialogue observed and recorded was also broader in content. As one board member commented: *“a board has [to have] a collectively-informed view of its strategic role and status”*. Based on the evidence drawn for the interviews, ineffective boards do not dedicate significant time and energy to strategy. Instead they focus primarily on monitoring compliance related functions.

Boardroom observation and literature on decision-making styles gives some rationale as to why strategy related matters were more intensively debated. When debate focused on reviewing and monitoring activity analytical and factual decision-making took place and sought factually or intellectual responses querying whether the action was right or wrong. Such interaction demands agreement or disagreement, not debate. Thus the dialogue was shorter with less intervention. Conversely when the board took on the onus for driving strategy it became forward-thinking and considerable attention turned to what could or might happen and the risks that might emerge during the period under discussion. Thus when strategy setting, resource acquisition or policy formulation are added to the agenda the board seeks not only analytical thinkers but requires in its mix directors who take an intuitive or imaginative perspective of a given situation. The researcher therefore surmises that boards taking on a wider strategically focused role adopt an outward-focus in addition to an inwardly-focussed monitoring approach, which necessitates intellectual and judgemental abilities producing analytical and factual responses.

The notion of boards adopting differing roles may provide a reason why the work of previous researchers (e.g. Finkelstein & Hambrick, 1996; Myllys, 1999; Lorsch & MacIver, 1989)

produced somewhat contradictory findings in respect to strategy in that boards differ significantly as to their level of involvement in strategy related decisions.

A phenomenon emerged showing most of the debate centred around the chief executive’s input yet the nature of debate focused on ensuring that any information gleaned from any source was shared. This finding challenges much of the literature on conflict, consensus and agreement replacing it with information symmetry and placing importance on the quality of information provided.

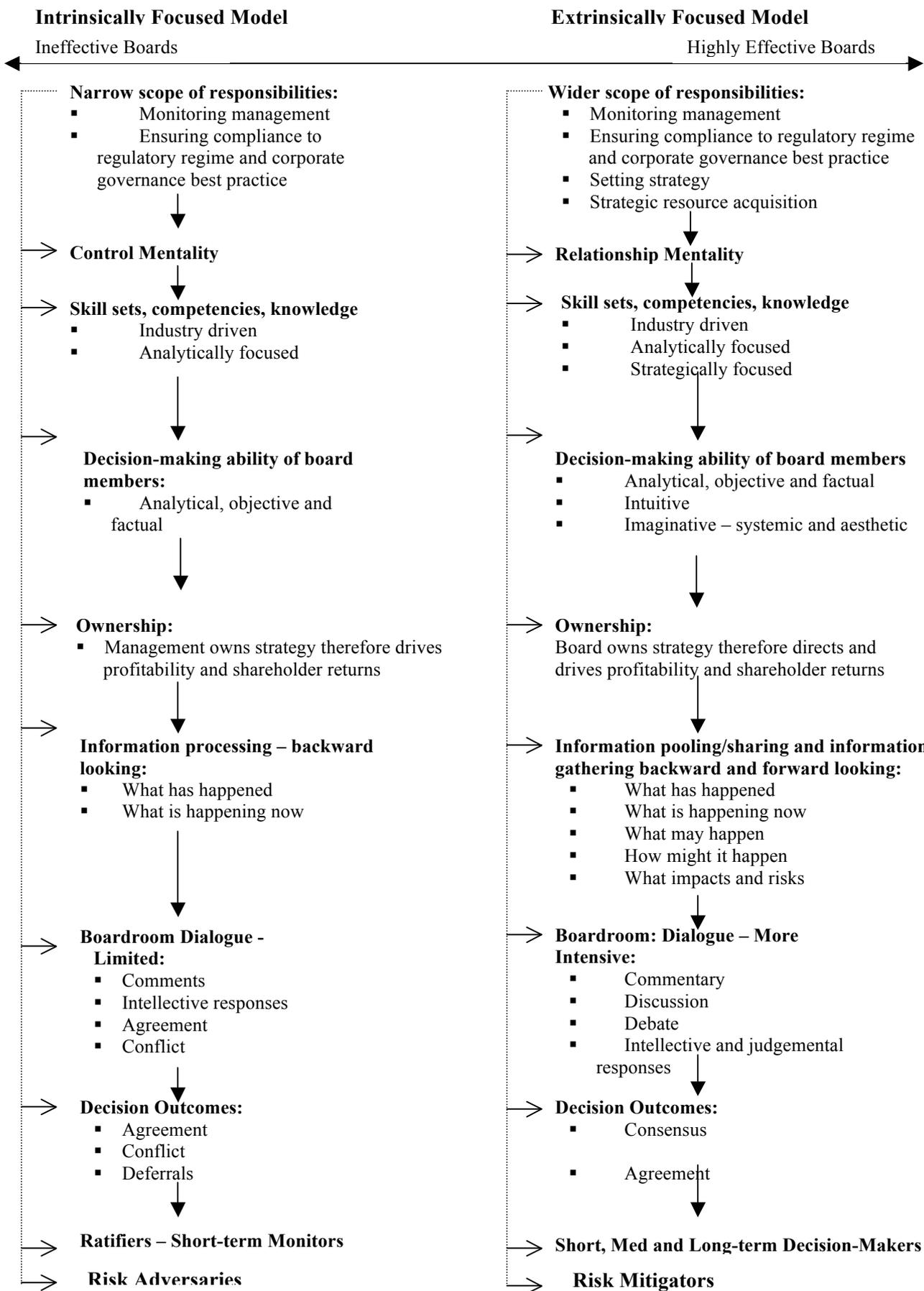


## **Structural Considerations**

Five characteristics support the proposition that the ratio between non-executive and executive directors or size of the board is less important than having the right competency mix. Firstly, the findings indicate that larger boards are more likely to adopt the more ineffective and narrower, monitoring-compliance-regulatory model. Secondly, although more board members sit on a large boards the collective skill sets, competencies, knowledge and experience were not described as being all embracing. Thirdly, commentary relating to two structural characteristics: vested interests and political appointments, suggest appointees find it hard to divorce their lines of accountability. Fourthly directors may have industry knowledge but often lack appreciation of governance formats, procedures or lack business acumen. Small boards with a balance of skills and competencies were more likely to be aligned with strategically driven corporations. Effective boards were described as those with seven-to-eight members, exhibiting a wider set of skills, competencies and knowledge. Although published academic work acknowledges skill sets and competencies (e.g. Bayly, 1988; Lorsch & McIver, 1989; Coulson-Thomas & Wakelam 1991; Bowen, 1995; Dulewicz & Herbert, 1999; Lee & Phan, 2000; O'Higgins, 2002), the notion of skill sets and competencies 'harmonising' with size and effectiveness is less often researched or debated. In addition effective boards possess individuals who can be described as analytical as well as judgemental decision-makers.

This leads to the conclusion that the combined skill sets, knowledge and competencies of board members assist the board to carry out its role while the role dictates the mix of skill sets, knowledge, competencies and thinking styles called for. This finding also suggests decision-making effectiveness is positively correlated to the broader strategically focused board model and its collective mix of abilities. When the analysis that was carried out in this study is shown as having connectivity the following model emerges.

**Figure 7. Connectivity of Decision-making Characteristics with Board Roles**



## **Behavioural Considerations**

Behaviour-related characteristics fell into two classifications: those relating to the characteristics associated with roles, and those relating to the decision-making process, though both are interlinked. At the same time the findings reinforced the importance of skill set analysis to ensure that the board's composition is aligned to the role to be carried out.

Chief executives fell into one of two categories; dominating boardroom decision-making or working collaboratively with the chair. The chief executive in this study made a significant contribution to the debate (26 per cent of total speaking episodes), led 41 per cent of the topics and was more likely to lead debate relative to strategic issues. The findings illuminated this chief executive's persistence of ensuring directors had the appropriate information before making a decision. Directors also viewed the chief executive as the 'gateway' to senior management holding him responsible for senior management's ability and growth. In essence he became the quality and volume controller of the information and worked closely with the chair to deliver it to board members. By embracing a 'no surprise' approach to board affairs his behaviour appeared incongruent with the notion of opportunism prescribed in agency-based theories.

Conversely, ineffective chief executives were either *dominated by*, or *dominating*' in relation to the board and/or chair often turning to the board to make decisions, rather than present alternatives. Such chief executives did not keep the board fully informed as matters arose. As a result board members worked without detailed information and in a state of ambiguity or asymmetry, not created by the market but by the chief executive. This in turned forced directors to adopt risk averse behaviour associated with the threat rigidity hypothesis, or conversely were obliged to take a gamble.

Evidence in this study reinforces the notion that effective chief executives do not stand alone: they have a strong heterogeneous management team supporting them. Yet management is less often referred to in governance literature even though, when investigating senior management's contribution in this study, directors openly acknowledged the importance of management-generated information.

Like the chief executive the chair's contribution could be described as providing information. The chair led twenty-eight per cent of the discussions mainly when the topic was compliance-conformance related and therefore more likely to be seeking an intellectual response. Conversely the chair often sought a director to frame the issue when the content was strategic and sought a judgemental, as opposed intellectual, response. It was the chair who briefed the board on shareholder issues and communicated key issues back to the shareholder(s).

Although the chair contributed to discussion and debate his ability to facilitate the process appeared critical. Thus the skill sets possessed by the chair influenced the process. The inference is that the way a board meeting is crafted by the chair includes: (1) developing a platform on which the decision-making process can evolve. In this way the chair calls on the skills, expertise, knowledge and experience of others; (2) being mission-vision driven; (3) keeping the meeting moving forward in a structured manner; (4) building a cohesive unit in which board members have a singleness of purpose, work to a strategically-focused agenda and have trust in the judgement and ability of their peers; and (5) encouraging diversity of views through participation thus reducing conflict and increasing sense-making.

The centrality of relationship between the chair and chief executive became a further point of difference. In an effective board the roles are complementary yet interdependent even though the difference between the two roles was profound: one managing the business, stakeholders

and information flows and the other ensuring accountability through facilitating the decision-making process. It could therefore be argued that this duality of purpose is critical to the relationship between the parties and in setting the tone of the board culture. It also was seen to establish decision-making parameters.

The findings revealed through frequency tables showed that directors as opposed to the chief executive or chair primarily carried out the decision-making task. Experienced board members made the most significant contribution to decision outcomes. Even though directors do not lead discussions unless directed by the chair to do so, directors shaped the debate particularly when they were strategic in nature. Their analytical and judgemental abilities thus became key contributors to the analysing, testing and deciding processes.

Literature suggests directors as boundary scanners (Tushman, 1981) and by inference information providers. Directors showed that they were more likely to refer to marketplace activity than other boardroom contributors although they only make limited reference to such activity. Instead they are more likely to seek additional information or present an individual perspective on the matter under discussion than to refer to marketplace activity or to enlighten the board about another board's initiatives or process. This does not insinuate that board members do not apply knowledge learned or ascertained outside the board, but rather their focus is on the topic under discussion. The study suggests they consider information firstly from the way management has presented it, secondly from their interpretation of it (built on knowledge ascertained from various sources) and thirdly after hearing their peers' perspectives. In this study it was shown that senior management like directors carry out some boundary scanning tasks however the tasks differed from that of board members. For management, the task was about external change and internal impacts of it on the

organisation's profit and viability, whereas for directors their comprehension and focus was on the wider, economic impact and associated social good in addition to ways to mitigate risk.

The study found that symmetry of information was a characteristic of the effective board highlighting how information sources (e.g. marketplace information and director knowledge) converge in the boardroom. Such transfer of information aligned to the way the board meeting progressed. How and by whom an issue was framed was a critical component. Such framing processes reflected the trust other directors had in the person and the preparedness and ability of the director. The chief executive's behaviour, by ensuring appropriate and relevant information was made available to directors (prior to the meeting and on occasions during debate when it appeared there may be a deficiency), funneled the information flow refining it even further.

Such a model suggests that it is through sharing and investigating information that symmetry is brought into the decision-making process. Thus support or antithesis for a proposition under discussion derived from various sources or viewed from varying perspectives, brought unfetteredness to the debate. In this way no one person or source shaped the decisional outcome. Instead board debates illuminated operational, industry and market information from management, directors and external resources such as consultants and external experts can be considered to be in line with the shareholders' intent. This proposition supports Sundaramurthy and Lewis's (2003) work on group decision-making by purporting that effective discussion can be described as continually forming a somewhat divergent yet progressive process. However, in confirming Sundaramurthy and Lewis' findings the progressive process takes a different tack than that presented by both these academics. Rather than considering consensus and conflict as two discrete influencers the finding of this study

illuminates the proposition that *information provision* and *information gathering* are key influencers to effective governance debate. These two interrelated influencers shape an effective decision-making process.

### **Theoretical Application**

Organisational perspectives, in suggesting that a board's role is to design the governance structure and to simply act in a supporting or legitimating capacity to management, does not acknowledge the broader function of a board to act in part, as a mechanism to shape the organisation's future. Thus the findings of this study suggest these theoretical perspectives of corporate governance align with larger boards working under the more traditional model.

Viewing corporate governance as a mechanism for resolving problems and protecting owner wealth does not appear to go far enough in explaining the broadening role of a board. The agency theory being internally focused neglects the growing concern for the well-being of the nation and the long-term implications of decisions made today. As a theory it is remiss in recognising an effective chief executive's and/or management's desire to work in the best interests of the organisation. Instead its relevance is its alignment to ineffective boards, particularly when a dominant chief executive underestimates the degree of congruence of purpose of the board's decision-making role. Such deficiencies means the theory is built around information asymmetry at the expense of both short and long-term organisational capabilities.

Strategic growth brings complex transactions, many of which undoubtedly are contractually-based and are therefore encapsulated in more corporate governance theories such as the transaction cost theory (Williamson 1975) and contractual perspectives (Alchian & Demsetz, 1972; Jensen & Meckling, 1976). In this case study differing roles align with differing

contractual obligations. With the exception of the shareholder obligation, which undoubtedly was a board responsibility, the contractual or transaction cost theories appear more applicable to the business development arena carried out by management. However, transaction and contractual theories, in part, applied when the board engaged external and independent expertise to illuminate the impact of risk relative to a major strategic transaction. In essence such theoretical perspectives are more relative to decisional inputs and outputs as opposed to outcomes.

Institutional theory, in connoting the social rules and preferred or accepted conventions and practices reflects much of the platform on which boards carry out a great deal of their compliance, conformance and business review roles. Its intent was less applicable to strategic setting activity. In the view of the researcher this theoretical proposition represents an over-socialised explanation of a board.

Directors on the board studied purported that its decision-making and in particular its resource acquisition programme is aimed at building the organisation firstly for the benefit of the organisation itself, secondly for its shareholders and thirdly the country's economy or infrastructure – its stakeholders. The impact of these three groups when these strategic issues become agenda items suggesting instead that theoretical propositions such as stewardship and shareholder theories overlook the strategic impact on stakeholders.

Despite the conceptual proposition behind the management hegemony theory, board members interviewed acknowledged management's ability to provide well-thought out and accurate information. In this study the board not only gave support to management it sought support

from management. In doing so showed a weakness in the theory in that it only adopts a one-way perspective.

Internal factors associated with intrinsically-influenced perspectives encapsulated only part of the workings of the board studied. Conversely organisational trust perspective resource dependency and resource-based theories turn attention to the cognitive workings of a board. It is closely aligned with the resource-based view of an organisation for reason that it attempts to explain how trust is an important enabler in the decision-making process. The researcher surmises that at the true core of any theoretical proposition of governance lies information symmetry. While this notion implies trust in the knowledge it also seeks the cognitive working abilities of board members, suggesting that the Williamson's (1995) proposition that purports trust through the sharing of information transcends opportunism and challenges the relevance of existing governance theories. Although, Williamson's (1995) work is yet to be theorised it appears the mostly theoretical premise on which to build an all-encompassing theory of corporate governance.

### **Acknowledged Methodology Limitations**

Acknowledging the weaknesses such qualitative research is perceived in organisational sciences to possess, this method has however provided a way to explore board characteristics that are often difficult to access. Thus a weakness would be to claim that a causal generalisation had been found or a theory evolved. Although the conclusions drawn are unscientifically arrived at their exploratory value lies in the logic of the argument supporting them. This in turn is based on both qualitative evidence and quantitative analysis of the data collected. Even though such analyses cannot present proven and verifiable facts the conclusions drawn from two representative sources of data implies some interesting

generalisations. In doing so it opens the way for readers to understand what happened under differing situations, understand the conclusions drawn, and/or draw their own conclusions. Thus it can be seen as a step toward a grander generalisation.

### **Further Research Implications**

The results of this study illuminate the complexities of board dynamics. In doing so it paves the way for future empirical research that expands and refines the understanding of what makes effective decision making boards. Although the small number of highly effective boards referred to by the directors serving on them precludes the drawing of stronger conclusions about leadership styles in this study they highlight five questions for further research.

The first question concerns the antecedents of leadership structure and in particular the relationship between the chair and chief executive in determining the distinct pattern of leader interaction required at board level. A second question concerns the selection and appointment of board members to ensure that effective and unfettered decision-making presides in the boardroom. Even though a collection of skills and competencies can be identified, possession of these does not automatically translate into the optimal mix for accountability and execution of governance duties within the industry or organisation. A third question associated with the previous one, relates to the relationship and correlation of agreement relative to any or all of four factors: (1) respect directors have for the input of their peers, (2) confidence they have in the process, (3) ability of the chair to facilitate, and (4) their own knowledge of the subject under discussion. Such knowledge could shed more light on the forms agreement takes. A fourth question relates to the optimal relationship between senior management and board members. As this study reveals governing an organisation is not an either/or situation: on the

contrary, it is a vital partnership pivoting around information symmetry, much of which is management-generated.

This thesis purports a board's role is to disseminate information and argues that within the current theoretical perspectives, each has relevance to effective boards and likewise some particularly reflect the role and behaviours of ineffective boards, yet not one adequately explains what lies at the heart of corporate governance. This notion raises the fifth question: As sharing information transcends opportunism in an effective board, how could this theoretical perspective be converted into an encompassing theory of corporate governance?

## **Conclusion**

This thesis purports that effective decision-making at board level is primarily defined by the role a board adopts. Thus the role becomes the primary determinant that shapes the activities a board undertakes. From the research two alternative models emerge. The first is an intrinsically-focused mechanistic model in which the board undertakes its statutory obligations and fiduciary duties: To oversee the management and affairs of the corporation; to act honestly and in good faith with a view to the best interests the corporation and a duty to exercise care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. The second extrinsically-focused model scopes its responsibilities considerably wider. Not only does it direct its attention to its statutory obligations and fiduciary duties such a board also accepts accountability for the delivery of the corporation's strategic intent. Four contributing determinants of effectiveness are strongly linked to the role adopted.

The first is the size of the board. This thesis advocates that large boards are more often ratifying or advisory bodies. It also purports that while size is undoubtedly a determinant of

effectiveness for reason that it has the ability to foster or restrict debate the insight gleaned is that boards with more than eight board members become ineffective. However the rider to size is the 'fitness' of the board which is defined as all members to contributing to the debate.

A complementary relationship is where the chair shapes and facilitates the process while the chief executive provides information. The conclusion drawn is the chemistry between the two incumbents and the complete understanding of their respective roles ensures the stability of the decision-making platform and is inseparable from an effective board.

Without addressing strategy issues, board debate is less rigorous and intensive with intellectual responses bringing either agreement without debate or conflict due to differing interpretations placed on statutory or best practice requirements. Boards that carry out these more narrow range of responsibilities (classified as ineffective boards) usually operate with a narrower range of skills, competencies and abilities at the board table. Conversely, board effectiveness correlated with an extrinsically focused role adopt a wider range of responsibilities and have board members who collectively represent a broad and balanced range of skill sets, competencies, knowledge, experience and ability. Another contributing determinant is trust – trust in information, among peers and with management. Trust permeates behaviours and processes. Such trust in information appears pivotal. Boards that have various channels of information and associated flows coupled with directors actively participating in the inquiry process proposes the notion that information symmetry and unfettered decision-making distinguishes effective boards from ineffective boards. Five factors implied support for this notion. Firstly, the trust board members have in the information provided by management. Secondly, board members preparedness for each meeting is viewed as critical to unfettered boardroom inquiry. Thirdly, the chief executive's openness to sharing all information is valued

by board members and viewed as essential to sound decision-making. Fourthly external advisors expressing ‘expert’ opinion or validating the work of management is viewed as a form of risk mitigation by the board members. Finally, the ability of the chair and chief executive to jointly create a structured decision-making process is vital to the ability of directors to view the chairman and chief executive as the font of credible information.

Despite many well developed theoretical frameworks the conclusion reached is that effective decision-making emerges when four tensions are balanced: teamwork retaining individual judgement; information-sharing (notion of information pooling) with information-testing; continuity of business with strategic change; and chief executives’ expectations with the chairs’ accountabilities. Although such decision-making implies a structural distance between the board and management it suggests governance is less about power over, and more about working with, management. Two common themes intertwine effective decision-making: information symmetry and board fitness: both build on trust.

What becomes clear through this research is that many theories and best practice applied to corporate governance have emerged because a view was taken that management is unreliable. This emphasis on control and accountability has encouraged many boards to adopt an intrinsically-focused role suggesting the increasing regulatory and compliance regime has worked against its own intent: rather than protect shareholder wealth it has fuelled instead the adoption of a compliance driven role with the capability to reduce board effectiveness. In this vein theory and practice reflect ineffectiveness.

On the other hand the researcher asserts that in advancing corporate governance effective decision-making should form the central proposition. The starting point is in acknowledging

that decision-making effectiveness is embedded in the concept of unfettered decision-making expressed in the Cadbury Report (1992). As shown by this study effective decision-making at board level correlates within an extrinsically-focused board. Entrenched in it is trust. The two dominant key contributors, trust and information symmetry, turn attention back on to Williamson's (1995) notion (trust through sharing of information), because each have the ability to transcend opportunism. The thesis therefore concludes that the conversion of this notion into theory is the most likely theoretical premise on which an all-encompassing theory of corporate governance could be advanced.

## **Bibliography**

Amason, A. C. (1996). "Distinguishing the effects of functional and dysfunctional conflict on strategic decision making: Resolving a paradox for top management teams." Academy of Management Review **39**(1): 123-148.

Anderson, G. and N. Arsenault (1998). Fundamentals of education research. London, Falmer Press.

Argyris, C. and D. Schoen (1974). Theory in Practice: Increasing professional effectiveness. San Francisco, Jossey Bass.

Argyris, C. and D. Schon (1974). Theory in Practice. San Francisco, Jossey-Bass.

Bantel, K. A. and S. E. Jackson (1989). "Top management and innovations in banking: Does the composition of the top team make a difference." Strategic Management Journal **10**: 107-112.

Bass, B. M. (1981). Concepts of leadership. Stogdill's Handbook of Leadership. B. M. Bass. NY, The Free Press: 5-16.

Beach, L. R. (1997). The psychology of decision making: People in organizations. Thousand Oaks, CA, Sage Publications, Inc.

Bettenhausen, K. (1991). "Five years of group research: What we have learned and what needs to be addressed." Journal of Management **17**(2): 345-381.

Bierly, P. E. I., E. H. Kessler, et al. (2000). "Organizational learning, knowledge and wisdom." Journal of Organizational Change **13**(6): 595-618.

Bradshaw, P., V. Murray, et al. (1992). "Do nonprofit boards make a difference? An exploration of the relationships among board structure, process, and effectiveness." Nonprofit and Voluntary Sector Quarterly **21**(3): 227-249.

Bradshaw, P., V. Murray, et al. (1996). "Women on boards of nonprofits: What difference do they make?" Nonprofit Leadership and Management **6**: 241-254.

Brower, H. (2002). Group decision making in the boardroom: A model for effectiveness. **2002**.

Campion, M. A., G. J. Medsker, et al. (1993). "Relations between work group characteristics and effectiveness: Implications for designing effective work groups." Personnel Psychology **46**: 823-850.

Chattopadhyay, P., W. H. Glick, et al. (2001). "Organizational actions in response to threats and opportunities." Academy of Management Journal **44**(5): 937-973.

Chia, R. (1994). "The concept of decision: A deconstructive analysis." Journal of Management Studies **31**(6): 781.

- Cohen, S. G. and D. E. Bailey (1997). "What makes teams work: Group effectiveness research from the shop floor to the executive suite." Journal of Management **23**(3): 239-290.
- Cosier, R. A. (1978). "The effects of three potential aids for making strategic decisions on prediction accuracy." Organizational Behavior and Human Performance **22**(2): 295-306.
- Cutting, B. and A. Kouzmin (2002). "Evaluating corporate board cultures and decision making." Corporate Governance: The International Journal of Effective Board Performance **2**(2): 27-45.
- Cyert, R. M. and J. G. March (1956). "Organizational factors in the theory of oligopoly." Quarterly Journal of Economics **70**(1): 44-46.
- Daily, C. M. (1995). "An empirical examination of the relationship between CEOs and directors." Journal of Business Strategies **12**(1): 50-68.
- Dalkey, N. C. and O. Helmer (1963). "An experimental application of delphi method to the use of expertise." Management Science **9**(3): 458-368.
- Dill, W. R. (1958). "Environment as an influence on managerial autonomy." Administrative Science Quarterly **2**(4): 409-443.
- Drucker, P. (1962). Managing the Future. Oxford, UK, Heinemann.
- Dutton, J. E., J. M. Dukerick, et al. (1994). "Organizational images and member identification." Administrative Science Quarterly **39**(2): 57-88.
- Edwards, W. (1954). "The theory of decision making." Psychological Bulletin **51**: 380-417.
- Finkelstein, S. and A. C. Mooney (2003). "Not the usual suspects: How to use board process to make boards better." Academy of Management Executive **17**(2): 101-113.
- Forbes, D. P. and F. J. Milliken (1999). "Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups." Academy of Management Review **24**(3): 489-505.
- Gist, M. E., E. A. Locke, et al. (1987). "Organizational behavior: Group structure, process, and effective." Journal of Management **3**(2): 239-290.
- Gladstein, D. L. (1984). "Groups in context: A model of task group effectiveness." Administrative Science Quarterly **29**(4): 499-517.
- Green, J. C. and D. W. Griesinger (1996). "Board performance and organizational effectiveness in nonprofit social services organizations." Nonprofit Management and Leadership **6**: 381-402.
- Guetzkow, H., G. Kozmetsky, et al. (1954). Centralization in organizing the controller's department. New York, Controllership Foundation.

- Hackman, J. R. (1987). The design of work teams. In J.W. Lorsch (ed.) Handbook of Organizational Behavior. Englewood Cliffs, NJ., Prentice-Hall.
- Hackman, J. R. and C. G. Morris (1975). "Group tasks, group interaction process and group performance effectiveness: A review and partial integration. In J.W. Lorsch (ed). Advances in experimental social psychology." Academic Press **8**: 47-99.
- Hall, J. and W. H. Watson (1970). "The effects of a normative intervention on group decision-making performance." Human Relations **23**(4): 299-317.
- Hambrick, D. C. (1987). "The top management team: key to strategic success." California Management Review **30**(1): 88-108.
- Hambrick, D. C. (1989). "Putting top managers back in the strategy picture." Strategic Management Journal **10**: 5-15.
- Hambrick, D. C. and P. A. Mason (1984). "Upper echelons: The organization as a reflection of its top managers." Academy of Management Review **9**(2): 193-206.
- Harvey-Jones, S. J. (1988). Making it happen. Glasgow, Scotland, Fontana Collins.
- Healy, J. (2003). Corporate governance and wealth creation in New Zealand. Auckland, Dunmore Press.
- Heath, C. and T. Gonzalez (1995). "Interaction with others increases decision confidence but not decision quality: Evidence against information collection views of interactive decision making." Organisational Behavior and Human Decision Processes **61**(3): 305-326.
- Hung, H. A. (1998). "Typology of the theories of the roles of governing boards." Corporate Governance: An International Review **6**(2): 101-111.
- Innami, I. (1994). "The quality of group decisions, group verbal behavior, and intervention." Organizational Behavior and Human Decision Processes **60**(3): 409-430.
- Jaffe, K. and P. Hinton (2004). "Principles in Place: what law changes will follow?" The Director(May): 24-26.
- Janis, I. L. (1972). Victims of groupthink: Psychological studies of foreign-policy decisions and fiascos. Boston, Houghton-Mifflin.
- Janis, I. L. (1983). Groupthink: Psychological Studies of Policy Decisions and Fiascos. Boston, Houghton Mifflin.
- Janis, I. L. and L. Mann (1977). Decision making: A psychology analysis of conflict, choice, and commitment. New York, Free Press.
- Johnson, J. L., C. M. Daily, et al. (1996). "Board of directors: A review and research agenda." Journal of Management **22**(1): 409-438.

Judge, W. Q., Jr. and C. P. Zeithaml (1992). "Institutional and strategic choice perspectives on board involvement in the strategic decision process." Academy of Management Journal **35**(4): 766-794.

Latane, B., K. Williams, et al. (1979). "Many hands make light the work: The causes and consequences of social loafing." Journal of Personality and Social Psychology **37**: 822-832.

Learmount, S. (2002). Corporate Governance: What can be Learned from Japan? Oxford, NY, Oxford University Press Inc.

Locke, E. A. (1976). The nature and causes of job satisfaction. Handbook of Industrial/Organizational Behavior. M. D. Dunnette. Chicago, Rand McNally. **1**.

Locke, E. A. and D. M. Schweiger (1979). Participation in decision making: One more look. In B. Shaw (Ed.). Greenwich, Conn, JAI Press.

Lockhart, J. (2004). "How compliance killed strategy at Air NZ and the NZRFU." The Director(May): 8 -12.

Maier, N. R. F. (1967). "Assets and liabilities in group problem solving: The need for an integrative function." Psychological Review **74**: 239-249.

Matheson, D. (2004). "Another view on the Securities Commission's governance principles." New Zealand Management(May, 2004): 70-71.

McGrath, J. E. (1984). Groups: Interaction and performance. Englewood Cliffs, NJ., Prentice-Hall.

Mintzberg, H. and J. A. Waters (1990). "Studying deciding: An exchange of view between Mintzberg and Waters, Pettigrew and Butler." Organization Studies **11**(1): 1-16.

Murray, A. (1989). "Top management group heterogeneity and firm performance." Strategic Management Journal **10**: 125-141.

Nemiroff, P. M., W. A. Pasmore, et al. (1976). "The effects of two normative structural interventions on established and ad hoc groups: Implications for improving decision making effectiveness." Decision Sciences **7**: 841-855.

Ocasio, W. (1995). The enactment of economic diversity: A reconciliation of theories of failure-induced change and threat-rigidity. Research in organization behavior. L. L. Cummings and B. M. Staw. Greenwich, CT, JAI Press. **17**: 287-331.

Osborn, R. N. (1957). Applied imagination. New York, Scribner.

Payne, J. W. (1982). "Contingent decision behavior." Psychological Bulletin **92**: 382-402.

Pearce, J. A. and S. A. Zahra (1991). "The relative power of CEOs and board of directors: Associations with corporate performance." Strategic Management Journal **12**(2): 135-153.

- Pettigrew, A. (1990). "Studying deciding: An exchange of views between Mintzberg and Waters, Pettigrew and Butler." Organization Studies **11**: 1-16.
- Prowse, S. (1994). "Corporate governance in an international perspective: A survey of corporate governance mechanisms among large firms in USA, UK, Japan and Germany." BIS Economics Papers No 41 **May**.
- Pye, A. (2000). "Changing scenes in, from and outside the board room: UK corporate governance in practice from 1989 to 1999." Corporate Governance: An International Review **8**(4): 335-346.
- Roe, M. J. (2004). The inevitable instability of American corporate governance. Social Science Research Network, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=615561](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=615561). **2005**.
- Rohrbaugh, J. (1979). "Improving the quality of group judgment: Social judgment analysis and the delphi technique." Organizational Behavior and Human Performance **24**(1): 73-92.
- Roth, P. L. (1994). "Group approaches to the Schmidt-Hunter global estimation procedure." Organizational Behavior and Human Decision Processes **59**(3): 428-451.
- Samra-Fredricks, D. (2000). "Doing 'board-in-action' research - an ethnographic approach for the capture and analysis of directors' and senior management' interactive routines." Corporate Governance: An International Review **8**(3): 244-257.
- Schmidt, W. H. (1974). "Conflict: A powerful process for (good or bad) change." Management Review **63**(12): 4-10.
- Schweiger, D. M. and R. A. Cosier (1980). "Effects of the expert, devil's advocate, and dialectical inquiry methods on prediction performance." Organizational Behavior and Human Decision Performance **26**: 409-424.
- Schweiger, D. M. and C. R. Leana (1986). Participation in decision making. In Locke, E.A. (ed.), Generalizing from laboratory to field settings. Lexington, MA, Lexington Books.
- Schweiger, D. M. and W. R. Sandberg (1989). "The utilization of individual capabilities in group approaches to strategic decision-making." Strategic Management Journal **10**: 31-43.
- Schweiger, D. M., W. R. Sandberg, et al. (1986). "Group approaches for improving strategic decision making: A comparative analysis of dialectical inquiry, devil's advocacy, and consensus." Academy of Management Journal **29**(1): 51-71.
- Schwenk, C. R. (1990). "Conflict in organizational decision making: An exploratory study of its effects in for-profit and not-for-profit organisations." Decision Sciences **36**(4): 436-448.
- Simon, H. A. (1957). Administrative behavior (2nd Ed.). New York, Macmillan.
- Staw, B. M., L. E. Sandelands, et al. (1981). "Threat rigidity effects in organization behavior: A multi-level analysis." Administrative Science Quarterly **26**(5): 501-524.
- Steiner, I. D. (1972). Group process and productivity. New York, Academic Press.

Stevens, M. J. and M. A. Campion (1994). "The knowledge, skill, and ability requirements for teamwork: Implications for human resource management." Journal of Management **20**(2): 503-530.

Stevenson, M. K., J. R. Busemeyer, et al. (1991). Judgment and decision-making theory. Handbook of industrial and organizational psychology. M. D. Dunnette and L. M. Hough. **3**: 283-374.

Sundaramurthy, C. and M. Lewis (2003). "Control and collaboration: Paradoxes of governance." Academy of Management Review **28**(3): 397-415.

Tricker, R. I. (1994). "Editorial." Corporate governance: An International Review **2**(1): 1-4.

Van de Ven, A. H. and A. L. Delbecq (1974). "The effectiveness of nominal, delphi, and interacting group decision making processes." Academy of Management Journal **17**(4): 605-621.

Weick, K. E. (1995). Sensemaking in organizations. Thousand Oaks, CA, Sage Publications.

Zahra, S. A. (1996). "Governance, ownership, and corporate entrepreneurship: The moderating impact of industry technological opportunities." Academy of Management **39**(4): 1713-1745.

Zahra, S. A., D. O. Neubaum, et al. (2000). "Entrepreneurship in medium size companies: Exploring the effects of ownership and governance systems." Journal of Management **26**(5): 947-976.