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**Role of boards in strategic goal setting
on South African Alt-X listed companies**

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ABSTRACT

The role of boards in strategic goal setting and, in particular, the level of board involvement in strategic goal setting has not been extensively researched, primarily because of the difficulty of gaining access to empirical data. Therefore, boards of directors of companies listed on the Alternative Exchange (AltX) of the Johannesburg Stock Exchange (JSE) were targeted for this research by means of a survey questionnaire administered via email.

The aim of the research was firstly to understand the level of board involvement in strategic goal setting, secondly to establish the common strategic goals set by AltX companies and how often these goals are reviewed, thirdly to determine whether there is a relationship between independent variables such as organisational size, board size and number of non-executive directors and the level of board involvement, and finally to determine whether the level of board involvement varies between executive and non-executive directors.

The research found that the level of board involvement was at mid-level being 'sometimes involved' while the board's involvement is significantly lower in strategic goal formation processes. The most common goal was found to be EBITDA (earnings before interest, taxes, depreciation and amortisation) with Cost being the strategic goal most frequently reviewed. No statistically significant correlation was established between the independent variables and the level of board involvement in strategic goal setting. Finally, non-executive directors prefer to take on more of an 'agency' role by not becoming involved in 'prescribing' strategy.



DECLARATION

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

A handwritten signature in dark ink, appearing to read 'M. Rassool', written over a horizontal line.

Mohammed Naim Rassool

10/11/2009

Date



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CHAPTER 1: INTRODUCTION TO THE RESEARCH PROBLEM

1.1 BACKGROUND

The number and scale of recent worldwide 'corporate collapses' seem unprecedented. The most notorious was Enron which was exposed for manipulating its accounts through off-balance-sheet special-purpose vehicles and losing billions as its share price dropped from \$90 (August 2000) to \$1 (December 2001), bringing down with it the entire Andersen auditing and consulting organisation worldwide (Pye and Camm, 2003).

Given such events on the world stage, it is not surprising that the role of boards has come under the spotlight. Recent media attention highlights that, more than ever, boards of directors are being held accountable for the organisations they govern (Long, 2007). High-profile corporate collapses, accounting irregularities, corporate corruption, inflated remuneration and inadequate disclosure practices have significantly affected public confidence in markets and focused the media spotlight clearly on corporate governance (Long, 2007).

The response has been a significant increase in attention to structural governance solutions, manifested in legislative interventions (Hendry and Kiel, 2004) such as Sarbanes-Oxley (US), ASX Corporate Governance Council (Australia), the Cadbury Report (UK) and the King Report (RSA). These interventions have largely been aimed at the conformance role of boards but pay limited attention to the performance role (Hendry and Kiel, 2004). While

company law, governance practitioners and many academics accept that a key aspect of this performance role is board involvement in strategy, there is little consensus on the nature of this involvement, despite considerable debate in the literature (Hendry and Kiel, 2004).

1.2 RESEARCH PROBLEM

The absence of a clear consensus on the nature of boards' involvement in strategy and the lack of empirical studies in this area are due to a number of reasons (Brauer and Schmidt, 2008). Firstly, the lack of a clear definition of the board's role in strategy has been a major obstacle in exploring its effectiveness. Earlier studies conceptualised board involvement in strategy rather broadly (Beaver, Davies and Joyce, 2007) and the meaning of involvement often varied across studies. Most critically, a clear conceptualisation of what is meant by strategy in the first place has often been missing. Secondly, extant corporate governance research has relied largely on a single theoretical perspective, namely agency theory. More recently, however, scholars noted that the one-sided use of the agency perspective in corporate governance research is inappropriate for explaining or conceptualising boards' strategy roles (Brauer and Schmidt, 2008). Understanding the role of boards in strategy formulation and implementation is therefore an area that requires further research.

Most empirical studies dealing with corporate governance issues focus on board composition and structure variables, and do not examine the level of involvement from a decision-making perspective (Siciliano, 2005).

According to Fiegener (2005), a weakness of past research concerning the board's involvement in various governance roles is that most empirical studies have imputed board involvement from its antecedents (for example, board composition, director demographics and ownership patterns) or consequences (for example, specific organisational decisions or outcomes), but have not directly assessed board involvement behaviour.

Finkelstein and Mooney (2003) mentioned that the appropriate level of strategic involvement must be known since strategic issues with which the board is involved will vary, often in ways that affect not only how boards work as a group but how boards perform.

Boards of directors can affect the strategy of their firms in two general ways (Fiegener, 2005). Boards influence strategy indirectly through 'decision control' activities such as evaluating past decisions made by top management, performing high-level reviews of strategic plans, and monitoring executive and firm performance (Fiegener, 2005). Boards can also influence strategy through 'decision management' activities such as ratifying strategic proposals, asking probing questions about important issues, and helping to formulate, assess and decide on strategic alternatives (Fiegener, 2005). Decision control is the board's most fundamental responsibility, but decision management has not traditionally been considered necessary as a board role (Fiegener, 2005). In this regard, Fiegener (2005) reports that past surveys of corporate directors affirm that while most boards review strategy and executive performance, few boards play a significant role in strategic decision making. However, these norms of

governance may be changing as mounting pressure from shareholder litigation, potential takeovers and from directors themselves are pushing boards to become more directly involved in strategy (Fiegenger, 2005). This is further emphasised by Ruigrok, Peck and Keller (2006) who mentioned that there is not much research on and agreement as to how boards affect the development of an organisation's strategy with most prior research focusing on the boards' monitoring activities.

1.3 RESEARCH NEED

The need for this study was underpinned by two factors, namely the study on boards currently being a topical issue and, more importantly, the rarity of empirical studies on boards' involvement in strategy by accessing boards of directors. Stiles (2001) reported that although research on boards is growing, there remains a lack of empirical studies on the perceptions of directors themselves as to their role and influence in the running of organisations and, in particular, the strategic process.

A number of authors have highlighted the need for studying the level of board involvement in strategy. Siciliano (2005) reported that for many years, boards of directors have been encouraged in theory and in practice to be involved actively and substantively in issues pertaining to the organisation's corporate strategy. However, few studies examine directly the nature and extent of board involvement in corporate strategy (Siciliano, 2005).

Pye and Camm (2003) further stated that the primary reason for choosing variables from secondary data is because of the difficulty in gaining access to directors and senior management. As a result, the number of empirical studies that directly access boards of directors are limited. Capturing this perspective would be of interest to both academics and practitioners in light of the current focus on boards and the challenging macroeconomic conditions.

1.4 RESEARCH PURPOSE

Due to the difficulty in gaining access to boards of directors on publicly listed companies, the study targeted boards of directors of companies listed on the Alternative Exchange (AltX) of the Johannesburg Stock Exchange (JSE). Accessing these directors was easier than accessing boards of directors of companies listed on the main board of the JSE because the companies on the AltX are smaller, hence the directors would be expected to be less busier and contact details for these directors was more readily available. Furthermore, strategy is a key issue in profit-driven companies rather than non-profit companies; hence the decision to target publicly listed companies. Access to secondary data such as the variables researched in this study was also more freely available in public companies than in private companies or state-owned enterprises. There were therefore a number of factors that were considered when selecting the target population for this study.

The purpose of this research was fourfold:

- Understand the level of board involvement in strategic goal setting and, in particular, the level of involvement in defining strategic goals, setting strategic goal targets and the strategic goal formation process
- Establish what the common strategic goals set by companies listed on the Alternative Exchange (AltX) of the Johannesburg Stock Exchange (JSE) are and how often these goals are reviewed by these companies
- Establish whether there is a relationship between independent variables such as organisational size, board size and number of non-executive directors sitting on the board, and the level of board involvement in strategic goal setting
- Determine whether the level of board involvement in strategic goal setting varied between executive and non-executive directors.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter begins with the role of boards in corporate strategy which is closely linked to the type and level of involvement boards assume in strategy design and implementation. This section contains literature derived from both theory and empirical evidence. The second section of this chapter defines and presents different views on strategic goal setting. The chapter then concludes with the literature debates thus far on the relationship between independent variables such as organisational size, board size and number of non-executive directors on the board, and the level of board involvement in strategy. The influence of non-executive directors on the level of board involvement in strategy is covered in the last part of the chapter.

2.2 ROLE OF BOARDS IN STRATEGY

The role of boards with regard to corporate strategy can be placed on a continuum, with a traditional perception of the role of the board as approving, monitoring and reviewing strategy at one end, to a leadership role of active involvement in establishing the goals, values and setting direction at the other end (Ingley and Van der Walt, 2001). In between, are views that see the involvement of the board as more active than merely giving approval, but less than engaging in actual strategy-making and rather being involved in guiding strategy. Zahra and Pearce (1990) referred to board strategic involvement as

the level of attention given by directors to the various elements of the strategic process such as corporate mission development, strategy conception and formulation, and strategy implementation. A more recent definition of board involvement (Ruigrok *et al*, 2006) is the overall level of participation of board members in making decisions that affect the long term performance of an organisation. Collier, Fishwick and Floyd (2004) have shown that managers who report higher levels of involvement in strategy tend to perceive the strategy process as one that incorporates a stronger vision, more rationality, and greater adaptiveness. Broadly, these findings are consistent with the conclusion that involvement contributes to success in the development of strategy

Findings of a survey (Van den Berghe and Baelden, 2005) revealed that although most boards are responsible for the ratification of the strategic decisions, their role differs greatly with respect to the formulation of strategic options and the actual choice of strategy. Some boards are very active and do not only choose the actual strategy but also get involved in the formulation of strategic options. Other boards take distance and delegate to management both the responsibility for the formulation of strategic options as well as the actual choice of strategy (Van den Berghe and Baelden, 2005).

The role of boards at a number of levels has been proposed by literature. For instance, Ravasi and Zattoni (2006) presented four roles for board involvement in strategy. The agency role is one of monitoring wherein board members ensure that the content of corporate strategies is aligned with shareholders' interests. The strategic choice role is one of advice where the board contributes

to the rational solution of strategic problems. The third role is resource dependence wherein the board secures the resources and legitimacy required to implement strategies. Finally, the political role where the board's role is to build consensus by facilitating the compromise between diverging interests about the outcome of strategic decisions (Ravasi and Zattoni, 2006).

The strategic role of boards is closely linked to the literature presented on the level of board involvement in strategy. Kemp (2006) mentioned that all boards have some level of involvement in major strategic decisions however; the level of involvement differs significantly. The shallowest level is where the board understands the processes, and ensures they are in place and working correctly (Kemp, 2006). In both risk management and strategy review, the board's role is that of review and reaction, rather than full responsibility (Kemp, 2006). At the next level the board is involved with shaping strategic decisions (Kemp, 2006). Influence occurs early in the decision process as board members shape the preparation of proposals by executives (Kemp, 2006). Consultation with board members while a proposal is being prepared enables board members to test ideas, raise issues, question assumptions, advise caution, and offer encouragement (Kemp, 2006). The deepest level of involvement is where the board is involved in shaping the content, context and conduct of strategy (Kemp, 2006). The board's influence is continuous and not confined to decision episodes and the board develops the context for strategic debate, establishes a methodology for strategic development, monitors strategy content, and alters the conduct of the executive in relation to strategy (Kemp, 2006).

Literature has presented both two and three levels of board involvement in strategy. Zahra and Pearce (1990) introduced two level involvement where it was stated that some boards define their role narrowly as discussing and approving the chief executive officers' (CEOs') strategic initiatives while others view their task as one of active participation in conceiving, formulating, selecting and implementing strategies. Variations in the level of boards' involvement in strategic issues may stem from differences in the composition, internal processes, and characteristics of the boards themselves (Zahra and Pearce, 1990). Brauer and Schmidt (2008) proposed two broad schools of thought on board involvement in strategy, namely the active and the passive school. The active school perceives board members as independent thinkers who actively shape the strategic development of their organizations. In contrast, the passive school views boards as rubber stamps, as "creatures of the CEO" whose only contribution is to satisfy the requirements of company laws.

Pugliese, Bezemer, Zattoni, Huse, van den Bosch and Volberda (2009) presented three theory basis namely, agency, resource dependency and cognitive or behavioural approach. According to Pugliese *et al* (2009), agency theory posits that boards affect strategic choices by preventing managers from acting opportunistically at the expense of shareholders. In this view, boards are not expected to initiate and implement strategies, but they contribute through ratifying and monitoring strategic decisions. Resource dependency theory suggests that board members are in an excellent position to contribute to strategic decision-making by providing access to resources on which firms depend (Pugliese *et al*, 2009). The stewardship theory challenges the rationale

of agency theory by arguing that the interests of managers and board members do not necessarily collide (Pugliese *et al*, 2009). In this perspective, the role of boards is to facilitate and empower managers, also in the realm of strategy (Pugliese *et al*, 2009). Finally, cognitive and behavioural approaches have emphasised the importance of understanding cognitive contributions of board members as well as the impact of boardroom dynamics on strategic decision-making (Pugliese *et al*, 2009). Another three level perspective is presented by Siciliano (2005) who said that the level of board involvement in strategy is at either a traditional, strategy review or collaboration level. Traditional is the lowest level of involvement while collaboration level is the highest level where boards take on a strategy role in collaboration with senior management.

There are a number of studies that have tested the level of strategic involvement on boards. Oliver (2000) found that most boards occupy a middle ground when it comes to getting involved in the formal strategic planning process while Siciliano (2005) also found that the board's level of participation in strategic planning is at the mid-range being strategy review. The Siciliano (2005) study sampled both CEO's and board members of credit union companies in the US financial services industry by sending out a survey questionnaire. Kelly and Gennard (2007) conducted semi-structured interviews with 72 directors employed in 49 organisations and found that the board's role is to question, amend or approve the strategy formulated by the CEO. The study (Kelly and Gennard, 2007) covered different types of organisations including 20 multinational companies, 10 multidivisional companies, 7 single businesses and 12 public-sector organisations. Lastly, in a study of Icelandic boards it was

found that the role of boards is varied and the role of the board can change from time to time (Jonsson, 2005). Eleven companies were approached using a questionnaire sent via email or fax followed up with a feedback interview. In the Jonsson study (2005), the respondents were asked to reflect on whether the role of the board had changed since the end of the 20th century. It was found that boards inter-changed between roles such as 'rubber-stamping', 'watchdog' and 'advisor.' One of the shifts in role was attributed to changed ownership structure while another to change in CEO.

Board involvement in strategic goal setting is a multidimensional construct indicating that there are a number of phenomena that are not directly observable (Hussey and Hussey, 1997). In the case of involvement in strategic goal setting, these phenomena or unidimensional constructs include process, structure, goal definition, targets and many others. This research focused on the unidimensional constructs of defining strategic goals, strategic goal targets and strategic goal process formation which are all an integral part of strategic goal setting and strategy. When assessing the level of board involvement in the various unidimensional constructs of strategic goal setting, the extent of involvement was assessed in four areas, namely the approving, reviewing, recommending and prescribing of strategic goals, targets and processes. These involvement areas were tested at five sublevels, namely 'always involved', 'often involved', 'sometimes involved', 'seldom involved' and 'never involved' using a questionnaire (Appendix 1).

A key research question emanating from this literature was in which unidimensional construct or strategic planning area (strategic goals, strategic goal targets, strategic goal formation process) is the level of board involvement in strategic goal setting the highest.

2.3 STRATEGIC GOAL SETTING

Corporate strategy at board level is comprised of four development phases' namely, strategic thinking, strategic decision-making, strategic planning and strategic execution (Nadler, 2004). The strategic planning phase is comprised of translating the critical strategic decisions into a set of priorities, goals and resource allocation actions to execute the strategy (Nadler, 2004). According to Gabris (1989), conventional strategic planning can be a lengthy and complex process involving several components. A conventional process may begin with the articulation of a mission statement, move onto stakeholder analysis, and then investigate the organisation's strengths, weaknesses, opportunities, and threats; more commonly referred to as a SWOT analysis. The process might then proceed to the isolation of strategic issues, the prioritisation of issues, action planning, and ultimately the creation of a futuristic vision (Gabris, 1989). According to Hodgkinson, Whittington, Johnson and Schwarz (2006), strategy workshops, the practice of taking time out from day-to-day routines to deliberate on the longer-term direction of the organisation, are a common practice, yet surprisingly little is known about them despite Hodgkinson *et al* (2006) concluding that strategy workshops are important vehicles for the emergence of strategy.

According to Gabris (1989), the central purpose of strategic goal setting is to identify fundamental goals or objectives with the intent of helping to guide the organisation towards the effective achievement of its mission or purpose and to prioritise or rank order them in relation to their importance for the organisation. Strategic goal setting addresses the short-term planning needs that most companies face and fits comfortably into the busy schedules of most decision makers (Gabris, 1989). Strategic goal setting is an attractive alternative to organisations and decision makers who are unwilling to commit to full-fledged strategic planning endeavours (Gabris, 1989). At the same time, the products of strategic goal setting are more limited in scope and less penetrating in their responses to long-term needs for organisational change and adaptation (Gabris, 1989).

Another view stated that organisational goals are a crucial element of strategic management (Molz, 1987). They take the form of objective or subjective statements of organisational intent and are the future domain of the organisation, a domain that creates a system of constraints on operating and strategic decisions. Typical characteristics of organisational goals (Molz, 1987) include that they are not necessarily stated in explicit form, are macro in perspective, oriented towards addressing the overall needs of the organization and widely understood by strategic decision makers. Molz (1987) is of the view that an organisation can only be managed effectively if it has clear and identifiable goals upon which to base strategic decisions.

Latham and Locke (2006) defined strategic goals as the level of performance proficiency that a company attains usually in a specified time period. Thus goal setting is first and foremost a discrepancy-creating process, in that the goal creates constructive discontent with the present performance (Latham and Locke, 2006).

One of the aims of this research was to understand which strategic goals were the most common amongst the JSE AltX listed companies and how often were these strategic goals reviewed by the board.

2.4 SIZE OF COMPANY AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

An earlier study by Rosenstein (1988) found that in conventional small firms and large corporations, there is little indication of significant board involvement in strategy formulation however in small high-technology firms with venture capital sponsorship, involvement in strategy was high. This would be expected since the requirement of strategic success would be in the interest of the venture capitalist as they would have a significant equity position in the company. Oliver (2000) in his study reported that the boards of small companies, start-ups and private companies are often more intimate and intense, interacting more with management and making key decisions on strategy on a regular basis. While, big company boards are often more formal and rely on management to formulate long-term strategy. Contrary to this view, Fiegenger (2005) found that board strategic participation is simply not a prevailing practice among small

firms. However, if managerial experience and expertise are lacking internally, as is often true in small firms, the CEO may turn to the board for help with strategy. Supporting this view in a more recent study by Brauer and Schmidt (2008) it was found that in large firms, boards were more likely to participate in strategic decisions.

Based on the above it is deduced that there is a positive impact of company size on strategic involvement. Therefore the research hypotheses at a multi-dimensional construct level was that bigger companies have a greater level of board involvement in strategic goal setting than smaller companies.

2.5 BOARD SIZE AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

Judge and Zeithaml (1992) reported that larger boards are assumed to be more involved from an institutional strategic perspective. Ruigrok *et al* (2006) further reported that larger boards also increase the company's ability to deal with environmental uncertainty. As environmental complexity and uncertainty have risen, boards have to deal with higher information-processing demands and according to Ruigrok *et al* (2006), one way of meeting this demand are to enlarge the board. Finally, having more directors increases the pool of expertise and advice that executives can capitalise on (Ruigrok *et al*, 2006). All these arguments imply that larger boards are better able to make significant contributions in strategy development.

On the contrary, literature also suggests that larger boards have more difficulties meeting frequently (Ruigrok *et al*, 2006); are slower in decision-making and less cohesive (Mueller and Baker, 1997). Furthermore, higher diversity of perspectives in larger boards might lead to all kinds of conflict among directors (Amason and Sapienza, 1997) and in larger groups, there is less time during board meetings for individual directors to speak up (Golden and Zajac, 2001).

The study carried out by Ruigrok *et al* (2006) found no evidence that factors such as board size, is related to board involvement in strategic decision-making and further mentioned that strategic board involvement requires active directors who are able to intensely discuss strategic opportunities during board meetings. However, this is an important variable to be studied as highlighted by Jaskiewicz and Klein (2007) who mentioned that board size and board composition can consequently affect the decision-making process, the decision-making capabilities, and the overall efficiency of a board of directors. Furthermore, Forbes and Milliken (1999) stated that board size is not truly a demographic attribute, but it is an important and much-studied board characteristic that is likely to have important effects on board functioning.

Taking the different viewpoints into consideration it is deduced that larger boards are not able to capitalise on their diversity of perspectives and hence there is a negative impact of board size on strategic involvement. The research hypotheses at a multi-dimensional construct level would therefore be that

companies with fewer board members have a greater level of board involvement in strategic goal setting than companies with more board members.

2.6 NUMBER OF NON-EXECUTIVE DIRECTORS AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

Zahra and Pearce's (1990) definition of non-executive directors was that they are not members of the firm's (or its subsidiaries') top management group, are not their associates or their relatives, are not consultants to the firm; and are not members of former executives of the firm (or its subsidiaries). Various academic studies focus on an insufficient representation of non-executive directors as a possible explanation for boards' failure to fulfil their monitoring role (Deutsch, 2005). A major prescription of agency theory is that effective boards will be mainly composed of non-executive directors (Deutsch, 2005). According to this perspective, executive directors are unlikely to monitor a CEO's actions effectively because their employment with the firm makes them beholden to the CEO (Deutsch, 2005). Other commonly used terms for non-executive directors are independent and outside directors.

Fiegner (2005) presented a positive impact of non-executive directors on strategic participation from a cognitive perspective. The cognitive perspective proposes that non-executive directors are a potential source of cognitive resources that may be valuable in strategic decision-making (Fiegner, 2005). Because of their backgrounds in other firms and industries, non-executive directors bring new knowledge, fresh perspectives, and different problem-

solving styles to the decision-making task (Fiegenger, 2005). These cognitive resources help executives collect more varied environmental information, consider a broader range of alternatives and opportunities, and process information in new ways (Fiegenger, 2005). By inserting needed variety into board deliberations, non-executive directors can improve the quality of the resultant decisions (Fiegenger, 2005). Under the reasonable assumptions that boards with more non-executive directors have greater cognitive variety and that CEO's recognise and value greater board decision-making effectiveness (Fiegenger, 2005). CEO's should be more inclined to turn to boards that have more non-executives for help with strategic decisions (Fiegenger, 2005). Thus, according to arguments from the cognitive perspective presented above by Fiegenger (2005), board strategic participation should be positively related to the number of non-executive directors.

Long (2007) reported that non-executives are expected to bring experience and knowledge gained outside the organisation, to challenge and test both the overarching strategic framework of the business as well as specific proposals for strategic investment, divestment and change. This view is supported by Zahra and Pearce (1990) who stated that increased representation of non-executives is believed to broaden the base of expertise represented on the board and to improve the quality of counsel provided to the CEO. In addition, non-executives are presumed to be objective in making decisions, and as a result are better able to represent diverse stakeholders.

In a survey on US boards wherein 200 responses were received, Lawler and Finegold (2006) found a strong association between greater presence of non-executive directors in the boardroom and how well the board performs different roles. The strongest correlations are with the shaping of long-term strategy. In this area, the attendance of all four types of non-executive directors, as well as the overall index of non-executive directors, was significantly related to effectiveness. Therefore based on the above arguments, non-executive directors would have a positive impact on strategy involvement.

In terms of a negative impact of non-executive directors on strategic participation, Ruigrok *et al* (2006) argues that non-executive board members have only limited time that they can invest and consequently lack much of the intimate knowledge and expertise. This is supported by Judge and Zeithaml (1992) who mentioned that executive directors with intimate company and industry knowledge on the board might be an important precondition to strategic involvement. Lawler and Finegold (2006) mentioned that non-executive directors generally lack detailed knowledge about what was happening in the corporation. They simply did not have the time, nor are they positioned to observe the day-to-day operation of the company. This in turn may make it difficult for them to detect fraud and abuse, as well as to assess the advisability of pursuing certain corporate strategies and business ventures. Lawler and Finegold (2006) stated further that non-executive board members may also lack the right mix of expertise to deal with all the issues that come before a board.

Long, Dulewicz and Gay (2005) reported that non-executive directors have a limited role in strategy development on listed boards; strategy sessions are infrequent and executive-led, often planned as annual or biannual events. The issue was highlighted by Goold and Campbell (1990), who questioned whether any non-executive director, however well qualified, experienced or intelligent, can play a valid strategic role in the one to two days per month that is normally the extent of the time they have for the task. The issue of strategy sessions being led by executives was highlighted by Ruigrok *et al* (2006) who mentioned that if the only insider on the board is the CEO, the board is highly dependent on the CEO for information and hence a non-executive director would have insufficient inside knowledge on the board that would limit the board's ability to contribute to corporate strategy. However in the study by Ruigrok *et al* (2006) using a survey on 237 publicly listed Swiss companies, no evidence was found that factors such as percentage of non-executive directors, was related to board involvement in strategic decision-making.

Other factors that contribute to a negative impact of non-executive directors on strategic participation include interlocking directorates which cause non-executive directors to limit their own contribution to the development of strategies (Zahra and Pearce, 1990). In these cases, the CEO selects non-executive directors hence independency from management is often questionable. Zahra and Pearce (1990) went on further to mention that when non-executive directors doubt managerial abilities they often resign instead of confronting the CEO. Many non-executive directors seem disposed to focus on issues pertaining to efficiency, rather than long-term effectiveness. Non-

executive directors often lack familiarity with industry conditions and company operations. Therefore, Zahra and Pearce (1990) summarised that increasing representation of non-executive directors on the board may hinder its strategic involvement.

Roberts, McNulty and Stiles (2005) mentioned that the key to board effectiveness lies in the degree to which non-executives acting individually and collectively are able to create accountability in the board with relation to both strategy and performance. Mere numbers of non-executive board directors achieves nothing; the non-executives must be 'active' in order to be effective (Roberts *et al*, 2005). Close involvement in strategy is precisely what gives non-executives the knowledge upon which they can then critique executive performance (Roberts *et al*, 2005).

Taking the above arguments into consideration it was proposed that there is a negative impact of non-executive directors on board involvement in strategy. Therefore, the research hypotheses at a multi-dimensional construct level was that companies with fewer non-executive board members have a greater level of board involvement in strategic goal setting than companies with more non-executive board members.

Roberts *et al* (2005) conducted 40 'in-depth' interviews with executive and non-executive directors and found that the perception of non-executives is that the review of strategic initiatives is a central feature of their contribution, and that their presence in the minds of the executive helps to 'raise the bar' in terms of

the quality of strategic proposals and the effectiveness of decision-making. Therefore, this led to the research question; does the perceived level of board involvement in strategy differ between executive and non-executive board of directors?

2.7 CONCLUSION

In this research, 'strategy involvement' was selected as the concept, 'level of goal setting' as the dependent variable and 'organisational size', 'board size' and 'non-executive directors' as the independent variables. To move from the conceptual to the empirical level, concepts are converted into variables by mapping them into a set of values (Welman *et al*, 2005).

The dependent variable (Welman *et al*, 2005) is that factor which the researcher observes and measures to determine how it is affected by the independent variable. This is a typical positivist approach where the concept is measured by setting up hypotheses and analysing for associations and causality (Hussey and Hussey, 1997). It is therefore the factor that appears, disappears or varies as the researcher introduces, removes or varies the levels of the independent variable. The dependent variable changes as a result of variations in the independent variable and is considered to be dependent because its value is assumed to depend on the values of the levels of the independent variable (Hussey and Hussey, 1997).

According to Welman *et al* (2005), the independent variable is that factor which the researcher selects and manipulates to determine its effect on the observed phenomenon (the problem being investigated). This variable is considered to be independent because the researcher is interested in how it affects the other variable(s) being studied. In other words, the researcher seeks to find a cause and a resultant effect relationship if it is present.

Given the various levels of involvement identified in the literature and the limited empirical evidence that board involvement in strategy formulation is associated with variables such as organisational size, board size and number of non-executive directors, this research aimed to add to the empirical literature on boards. This was carried out by first testing the level of strategy involvement and then establishing whether there was a relationship between level of strategy involvement and the independent variables. Literature thus far presents a positive, negative or no relationship between strategy involvement and independent variables such as organisational size, board size and number of non-executive directors on the board.

Other important research questions that emerged from the literature were to determine the strategic goals being set by companies and the perception of board involvement in strategic goal setting by both executive and non-executive directors.

CHAPTER 3: RESEARCH QUESTIONS AND HYPOTHESIS

3.1 INTRODUCTION

In the broader context of strategy, and on the basis of a review of the literature on the role of boards in strategy, strategic goal setting and level of board involvement in strategy based on a number of independent variables (set out on Chapter 2), five research questions and 36 hypotheses were formulated. Note that there were 36 hypotheses since three unidimensional constructs of strategic goal setting were tested for correlation at the four levels namely, 'approve', 'review', 'recommend' and 'prescribe'.

3.2 RESEARCH QUESTION 1

What was the level of board involvement in strategic goals, strategic goal targets and strategic goal formation process?

3.3 RESEARCH QUESTION 2

Which of strategic goals, strategic goal targets or strategic goal formation process had the highest level of board involvement?

3.4 RESEARCH QUESTION 3

Which were the most common goals set by AltX companies?

3.5 RESEARCH QUESTION 4

Which were the most frequently reviewed goals by AltX companies?

3.6 RESEARCH QUESTION 5

Did the perceive level of board involvement in strategy differ between executive and non-executive board of directors?

3.7 HYPOTHESES

The following were the hypotheses generated from the multi-dimensional construct of board involvement in strategic goal setting.

H1 ₁ :	Bigger companies had a greater level of board involvement in approving strategic goals than smaller companies
H1 ₀ :	There was no difference in the level of board involvement in approving strategic goals of bigger versus smaller companies
H2 ₁ :	Bigger companies had a greater level of board involvement in reviewing strategic goals than smaller companies
H2 ₀ :	There was no difference in the level of board involvement in reviewing strategic goals of bigger versus smaller companies
H3 ₁ :	Bigger companies had a greater level of board involvement in recommending strategic goals than smaller companies
H3 ₀ :	There was no difference in the level of board involvement in recommending strategic goals of bigger versus smaller companies
H4 ₁ :	Bigger companies had a greater level of board involvement in prescribing strategic goals than smaller companies
H4 ₀ :	There was no difference in the level of board involvement in prescribing strategic goals of bigger versus smaller companies
H5 ₁ :	Bigger companies had a greater level of board involvement in approving strategic goal targets than smaller companies
H5 ₀ :	There was no difference in the level of board involvement in approving strategic goal targets of bigger versus smaller companies
H6 ₁ :	Bigger companies had a greater level of board involvement in reviewing strategic goal targets than smaller companies
H6 ₀ :	There was no difference in the level of board involvement in reviewing strategic goal targets of bigger versus smaller companies
H7 ₁ :	Bigger companies had a greater level of board involvement in recommending strategic goal targets than smaller companies
H7 ₀ :	There was no difference in the level of board involvement in recommending strategic goal targets of bigger versus smaller companies
H8 ₁ :	Bigger companies had a greater level of board involvement in prescribing strategic goal targets than smaller companies
H8 ₀ :	There was no difference in the level of board involvement in prescribing strategic goal targets of bigger versus smaller companies
H9 ₁ :	Bigger companies had a greater level of board involvement in approving strategic goal formation process than smaller companies
H9 ₀ :	There was no difference in the level of board involvement in approving strategic goal formation process of bigger versus smaller companies
H10 ₁ :	Bigger companies had a greater level of board involvement in reviewing strategic goal formation process than smaller companies
H10 ₀ :	There was no difference in the level of board involvement in reviewing strategic goal formation process of bigger versus smaller companies



H11 ₁ :	Bigger companies had a greater level of board involvement in recommending strategic goal formation process than smaller companies
H11 ₀ :	There was no difference in the level of board involvement in recommending strategic goal formation process of bigger versus smaller companies
H12 ₁ :	Bigger companies had a greater level of board involvement in prescribing strategic goal formation process than smaller companies
H12 ₀ :	There was no difference in the level of board involvement in prescribing strategic goal formation process of bigger versus smaller companies
H13 ₁ :	Companies with fewer board members had a greater level of board involvement in approving strategic goals than companies with more board members
H13 ₀ :	There was no difference in the level of board involvement in approving strategic goals of companies with more versus fewer board members
H14 ₁ :	Companies with fewer board members had a greater level of board involvement in reviewing strategic goals than companies with more board members
H14 ₀ :	There was no difference in the level of board involvement in reviewing strategic goals of companies with more versus fewer board members
H15 ₁ :	Companies with fewer board members had a greater level of board involvement in recommending strategic goals than companies with more board members
H15 ₀ :	There was no difference in the level of board involvement in recommending strategic goals of companies with more versus fewer board members
H16 ₁ :	Companies with fewer board members had a greater level of board involvement in prescribing strategic goals than companies with more board members
H16 ₀ :	There was no difference in the level of board involvement in prescribing strategic goals of companies with more versus fewer board members
H17 ₁ :	Companies with fewer board members had a greater level of board involvement in approving strategic goal targets than companies with more board members
H17 ₀ :	There was no difference in the level of board involvement in approving strategic goal targets of companies with more versus fewer board members
H18 ₁ :	Companies with fewer board members had a greater level of board involvement in reviewing strategic goal targets than companies with more board members
H18 ₀ :	There was no difference in the level of board involvement in reviewing strategic goal targets of companies with more versus fewer board members
H19 ₁ :	Companies with fewer board members had a greater level of board involvement in recommending strategic goal targets than companies with more board members
H19 ₀ :	There was no difference in the level of board involvement in recommending strategic goal targets of companies with more versus fewer board members
H20 ₁ :	Companies with fewer board members had a greater level of board involvement in prescribing strategic goal targets than companies with more board members
H20 ₀ :	There was no difference in the level of board involvement in prescribing strategic goal targets of companies with more versus fewer board members
H21 ₁ :	Companies with fewer board members had a greater level of board involvement in approving strategic goal formation process than companies with more board members
H21 ₀ :	There was no difference in the level of board involvement in approving strategic goal formation process of companies with more versus fewer board members
H22 ₁ :	Companies with fewer board members had a greater level of board involvement in reviewing strategic goal formation process than companies with more board members
H22 ₀ :	There was no difference in the level of board involvement in reviewing strategic goal formation process of companies with more versus fewer board members
H23 ₁ :	Companies with fewer board members had a greater level of board involvement in recommending strategic goal formation process than companies with more board members
H23 ₀ :	There was no difference in the level of board involvement in recommending strategic goal formation process of companies with more versus fewer board members
H24 ₁ :	Companies with fewer board members had a greater level of board involvement in prescribing strategic goal formation process than companies with more board members
H24 ₀ :	There was no difference in the level of board involvement in prescribing strategic goal formation process of companies with more versus fewer board members
H25 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in approving strategic goals than companies with more non-executive



	board members
H25 ₀ :	There was no difference in the level of board involvement in approving strategic goals of companies with more versus fewer non-executive board members
H26 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in reviewing strategic goals than companies with more non-executive board members
H26 ₀ :	There was no difference in the level of board involvement in reviewing strategic goals of companies with more versus fewer non-executive board members
H27 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in recommending strategic goals than companies with more non-executive board members
H27 ₀ :	There was no difference in the level of board involvement in recommending strategic goals of companies with more versus fewer non-executive board members
H28 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in prescribing strategic goals than companies with more non-executive board members
H28 ₀ :	There was no difference in the level of board involvement in prescribing strategic goals of companies with more versus fewer non-executive board members
H29 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in approving strategic goal targets than companies with more non-executive board members
H29 ₀ :	There was no difference in the level of board involvement in approving strategic goal targets of companies with more versus fewer non-executive board members
H30 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in reviewing strategic goal targets than companies with more non-executive board members
H30 ₀ :	There was no difference in the level of board involvement in reviewing strategic goal targets of companies with more versus fewer non-executive board members
H31 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in recommending strategic goal targets than companies with more non-executive board members
H31 ₀ :	There was no difference in the level of board involvement in recommending strategic goal targets of companies with more versus fewer non-executive board members
H32 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in prescribing strategic goal targets than companies with more non-executive board members
H32 ₀ :	There was no difference in the level of board involvement in prescribing strategic goal targets of companies with more versus fewer non-executive board members
H33 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in approving strategic goal formation process than companies with more non-executive board members
H33 ₀ :	There was no difference in the level of board involvement in approving strategic goal formation process of companies with more versus fewer non-executive board members
H34 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in reviewing strategic goal formation process than companies with more non-executive board members
H34 ₀ :	There was no difference in the level of board involvement in reviewing strategic goal formation process of companies with more versus fewer non-executive board members
H35 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in recommending strategic goal formation process than companies with more non-executive board members
H35 ₀ :	There was no difference in the level of board involvement in recommending strategic goal formation process of companies with more versus fewer non-executive board members
H36 ₁ :	Companies with fewer non-executive board members had a greater level of board involvement in prescribing strategic goal formation process than companies with more non-executive board members
H36 ₀ :	There was no difference in the level of board involvement in prescribing strategic goal formation process of companies with more versus fewer non-executive board members



3.8 LIMITATIONS

There was not enough literature found to support the formulation of hypotheses for the five research questions identified above.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 RESEARCH METHOD

This was a quantitative descriptive research study as we were aware of a partially defined problem and primary data was gathered to work towards fully understanding the problem. The descriptive study also allowed us to understand the perceptions and attitudes of board of directors towards strategic goal setting and the relationship this had with factors such as organisational size, board size and number of non-executive directors.

4.2 RESEARCH DESIGN

Research design is a master plan specifying the methods and procedures for collecting and analysing the needed information (Zikmund, 2003). The basic research method for the descriptive study was a questionnaire survey. A survey is a positivistic methodology whereby a sample of subjects is drawn from a population and studied to make inferences about the population (Hussey and Hussey, 1997). The survey was a self-administered questionnaire sent to all the board of directors sitting on companies listed on the Alternative Exchange (AltX) of the Johannesburg Stock Exchange (JSE).

The benefits of incorporating a questionnaire in an e-mail include speed of distribution, lower distribution and processing costs, faster turnaround time, more flexibility, and less handling of paper questionnaires (Zikmund, 2003). This

was the best research design considering the profile of the target population, namely board of directors who are under severe time constraints. However, a key disadvantage of this method of delivering the questionnaire was anonymity because a reply to an email message typically will include the sender's details. Therefore, it was important that confidentiality was assured to all respondents in both the covering letter (Appendix 1) and the body of the email. In the majority of companies, the email addresses of board of directors were known and the survey questionnaire was sent directly to them but in a few cases where the emails were not known; the survey was sent via the personal assistants (PA's) of the CEO's. The PA's administered the survey amongst all the board of directors and assurance was sought that the survey was sent to all board of directors.

4.3 QUESTIONNAIRE DESIGN

The questionnaire contained in Appendix 1 was short, simple and comprised of structured closed questions, which limited the number of responses available. The questionnaire contained clarity on the terminology used in the questionnaire in order to avoid confusion, doubt and avoid survey error.

Section A began with a couple of generic survey questions such as the name of the company the respondent was representing and the role of the respondent on the board. The feedback received on the role of the respondent on the board allowed one to divide the data into executive and non-executive board of director's in order to address Research Question 5. The final question in section

A was a specific question on what the current strategic goals of the company were and how often were the strategic goals reviewed. Besides addressing Research Questions 3 and 4, this was an important question since it aimed to clarify with the respondent what was meant by strategic goals and this was achieved by presenting a choice of nine common strategic goals for the respondent to make a selection from.

Sections B, C and D represented the uni-dimensional constructs of strategic goals, strategic goal targets and strategic goal formation process, respectively. Each section contained four questions addressing 'approving', 'reviewing', 'recommending' and 'prescribing'. Within the four questions the respondent indicated the level of involvement on a 5-point Likert scale ranging from 'always involved' to 'never involved'. The segmenting of the questions in the various constructs and areas ensured that the questions were very specific and created no doubt in the mind of the respondent. The profile of data was nominal in Section A with Sections B, C and D capturing ordinal data.

4.4 PROPOSED SAMPLING PLAN

4.4.1 Target population

There are 76 listed companies on the JSE AltX and surveying the board of directors on these companies was the target population. In these 76 listed companies there are 474 directors comprising both executives and non-executives. Board of directors sitting on multiple companies were required to

complete questionnaires reflecting the situation in each of the companies they represented as directors. There were six directors that represented two companies on the AltX, one director representing three companies and another director representing five companies.

4.4.2 Unit of analysis

The unit of analysis was the JSE AltX listed company and the data was analysed taking into account the responses of the various board members of each company and using arithmetic means.

4.4.3 Sample size and sampling-method

Typical response rates of strategy-related survey questionnaires targeted at board of directors from literature include 28.5% (Ruigrok *et al*, 2006), 23.2% (Fiegenger, 2005) and 14% (Stiles, 2001). In this research, since the entire population was being surveyed, the initial aim was to receive 30 responses from AltX companies giving a response rate of approximately 38%. However, the response rate achieved at the unit of analysis being company responses; was approximately 46% with 36 of the 76 companies responding. In total 50 board of directors responded to the survey.

A pre-testing phase using a small sub-sample of three companies was undertaken to test the questionnaire. According to DeMaio, Bates, Willimack and Ingold (2006) the value of testing draft questionnaires with potential survey

respondents cannot be overstated. Two companies responded to the pre-test and the responses were positive towards the survey questions and only minor input was given into the survey questionnaire design. Hence the responses from the pre-test survey was incorporated into the main study since according to Survey Design (2009), if a questionnaire is found to be acceptable after the pre-test and one does not change any questions then the results from the pre-test are combined with the results of the main survey. Therefore the sample size was 76 companies and this made up the entire population. Easterby-Smith, Thorpe and Lowe (1999) mentioned that it is always advisable to 'pilot' the questionnaire on a small number of units before using it 'for real' since it enables one to check that the items are easily understood and that there are no obvious problems to do with length, sequencing of questions and sensitive items. Furthermore, it is also important at the pilot stage to see whether it is possible to analyse the data produced by the questionnaire and whether the results appear to make any sense.

4.4.4 Sampling technique

The aim was to achieve probability based sampling and this was firstly achieved by using simple random sampling to choose a sample size of three companies from the population to test the questionnaire. Secondly, the entire population of 76 companies were used in administrating the final questionnaire. Random sampling is where every unit in the population has an equal and known chance of being selected (Zikmund, 2003). The basic simple random sample was considered the likely option since the board of director population is relatively

homogenous with respect to the questions of interest. Simple random sampling is where each unit of the population is assigned a number and then sample units are selected by a random method (Zikmund, 2003). Random sampling error can also be accurately predicted with probability sampling using appropriate statistical techniques (Zikmund, 2003). The random sampling method sequence in selecting the companies for testing the questionnaire was carried out as follows (McBurney, 2001):

- Define and identify the sampling frame,
- Determine the desired size of the sample,
- Compile a list of all members of the population, and assign each member on the list a number from zero to the required number, and
- Use the RANDBETWEEN function in MS Excel™ to obtain random numbers to get the desired number of subjects to make up the sample.

4.5 DATA COLLECTION

The questionnaire contained all closed questions using 5-point Likert scales. This scaling method is useful when respondents indicate their attitudes by checking the extent of their agreement with carefully constructed statements that range from very positive to very negative (Zikmund, 2003). As outlined in the covering letter (Appendix 1), the respondents had an option to either fax back the completed questionnaire or email it back. The received completed questionnaires with covering fax receipts and email text bodies were scanned to Adobe® Acrobat read-only format for storage purposes and the data was

recorded in a Microsoft® Office Excel spreadsheet. The response was mainly via email or fax as designed; however three board of directors, all CEO's, insisted on meeting personally to complete the questionnaire. The time spent with these CEO's in terms of strategic goal setting discussions was an invaluable learning exercise. A number of board of directors commended the research and also requested to view the final outcome.

4.6 DATA ANALYSIS

The data analysis was carried out using both descriptive statistics which involved the description and summary of data, and inferential statistics that allowed inferences to be drawn from the results. The data analysis was carried out at three levels, namely frequencies and descriptive statistics, checks on scales (reliability) and inferential statistics (hypothesis testing) with supporting graphs throughout. The statistical data analysis was carried out using recognised software (StatSoft, 2009).

4.6.1 Frequencies and descriptive statistics

In analysing and interpreting the results of surveys, comparisons of basic descriptive data are usually conducted and are necessary to make the results meaningful (Welman, Kruger and Mitchell, 2005). The first step of the analysis of the quantitative data was to generate a distribution chart of the profile of the respondents. Then a frequency table capturing all the goals identified by the respondents together with the period of review was compiled. The frequency

table was then developed into a cross tabulation table looking at the various sub-variables under goals, targets and formation process. Frequency tables and cross tabulations were also created for the involvement scores against the independent variables. The measurement of location or central tendency through calculating the mean, median and mode was carried out with a view of where the approximate 'middle' of a set of data lies. A measure to describe the spread of values in a data distribution was also carried out by computing the standard deviation. The most important reason for using the standard deviation as a measure of spread is that it is related to a very common theoretical frequency distribution called the normal distribution which then allows use of parametric techniques to do confirmatory data analysis (Hussey and Hussey, 1997). When data is usually ordinal then it is necessary to use non-parametric statistics however with a large sample and a continuous dimension such as 'strongly agree' to 'strongly disagree' as in a Likert scale, using parametric statistics is often both accurate and useful (Easterby-Smith *et al*, 1999).

With the non-parametric statistics carried out in this research, it should be noted that in calculating response means, the Likert scale was regarded as having equal intervals. However there is a school of thought that says that the Likert scale is not represented by equal intervals and in this case the non-parametric statistics using response means was followed by response frequencies where the ordinal data was clustered. The frequency analysis clustered the data in such a way that 'always involved' and 'often involved' was combined into one category while 'sometimes involved', 'seldom involved' and 'never involved' was

combined into another category. Therefore this created two clustered categories that were classified as 'involved' and 'not involved'

4.6.2 Reliability checks

In an evaluation survey it is important to know whether the instrument being used will yield a consistent and reliable response. Cronbach's alpha is an index of reliability associated with the variation accounted for by the true score of the underlying construct which is a hypothetical variable that is being measured (Santos, 1999). Welman *et al* (2005) reported that the coefficient alpha index shows the degree to which all the items in a measurement/test measure the same attribute. Alpha coefficients range in value from 0 to 1 and may be used to describe the reliability of factors extracted from multi-point formatted questionnaires or scales as the one used in this study. The higher the score, the more reliable the generated scale is (Santos, 1999).

4.6.3 Inferential statistics

Descriptive statistics was followed up by statistical techniques that measure similarities and differences. The hypothesis allows us to test for association or causality by deducing logical consequences which can be tested against empirical evidence (Hussey and Hussey, 1997). A t-test determines whether an observed difference in the means of two groups is sufficiently large to be attributed to a change in some variable or if it could have occurred by chance (Welman *et al*, 2005). In view of the multivariate nature of the dependent

variable in this study, the univariate t-test was used to compare company size, board size and number of non-executive directors to the uni-dimensional constructs (strategic goal setting, strategic goal targets and strategic goal formation process) and the board involvement areas (approve, review, recommend and prescribe). In addition to this, the Mann-Whitney U test was carried out to test for correlation on the level of board involvement in strategic goals between executive and non-executive directors.

4.7 DATA VALIDITY AND RELIABILITY

Zikmund (2003) mentioned there are three major criteria for evaluating measurements namely; reliability, validity and sensitivity. The manner in which the data was sourced (Appendix 2), the nature of the questions being posed and the design of the scales (Appendix 1), respectively; ensured that this study met the three major criteria for measurements. A questionnaire is relevant if no unnecessary information is collected and if the information that is needed to solve the business problem is obtained (Zikmund, 2003). The use of an email questionnaire sent to a single person at a time enhanced the validity of this survey since it ensured that multiple responses were not received from the same person and hence this prevented response bias and the ability to assess non-response error. The statistical reliability checks in place together with piloting of the questionnaire to three company boards also further enhanced the reliability and validity of the study.

The key error in the survey research method would be non-response error or non-response bias *i.e.* those people that do not return surveys (Zikmund, 2003). Despite the response rate of 46% at company level being satisfactory, the individual response rate was 11% with only 50 completed surveys being received from 474 directors surveyed. Gravetter and Forzano (2003) mentioned that people who are most interested in the survey topic will be most likely to complete and return the survey and this leads to non-response bias that can limit the ability to generalise survey results, which is a threat to the external validity of the study.

Other errors that could have occurred were survey error where respondents tended to answer questions in a certain direction. With the dominant Likert scale being used, extremity bias which is a response bias that results because some individuals tend to use extremes when responding to questions (Zikmund, 2003), in other words when they just put '5' rankings was also likely.

4.8 RESEARCH METHODOLOGY LIMITATIONS

Siciliano (2005) mentioned that there is difficulty in gaining access to directors and senior management and hence as a result the number of empirical studies that directly assess board involvement is limited. In light of this the following aspects are limitations to this study:

- Due to the nature of the population being targeted, it was difficult to eliminate non-response bias. Several actions were employed to increase

the overall response rate for e-mail survey and thereby reduce the bias (Gravetter and Forzano, 2003). These actions outlined in Appendix 3 were considered during the survey.

- There was also a possibility of sample selection error if there are directors that sit on multiple boards however do not fill in multiple questionnaires. However, the occurrence of this error was minimised by taking an arithmetic mean of the responses.
- There was also a real risk that PA's despite their assurances had not sent the survey onto all the board of directors.

Finally, it is worth noting that cross-sectional designs, particularly where they use questionnaire and survey techniques, have the ability to describe economically features of large numbers of people or organisations but two limitations are frequently evident. Firstly, they do not explain why correlations exist and secondly, they have difficulty eliminating all the external factors which could possible have caused the observed correlation (Easterby-Smith *et al*, 1999).

CHAPTER 5: RESULTS

5.1 INTRODUCTION

The statistical analysis of the results of the various research questions and hypotheses was presented graphically and was tabulated. The data was analysed using the STATISTICA software (StatSoft, 2009) and imported into Microsoft® Office Excel from which graphs were extrapolated and tables drawn. The results were presented in subsections that correspond to the research questions and hypotheses.

The respondents were board directors of companies listed on the Alternative Exchange (AltX) of the Johannesburg Stock Exchange (JSE). In terms of the profile of the respondents, of the 50 responses received, 16 were non-executive directors, 14 chief executive officers (CEOs), 12 other executive directors and eight chief financial officers (CFOs). The profile of the respondents is shown in Figure 1. From the 50 responses received, three responses were received from one company, two responses from 12 companies and one response each from 23 companies, making a total of 36 companies that responded to the survey.

5.2 VALIDITY OF RESULTS

The reliability of the survey response was high since the Cronbach alpha highlighted in Table 1 is very close to one. This means that people who scored high on one item tended to score high on the others.

Figure 1: Profile of respondents to the survey

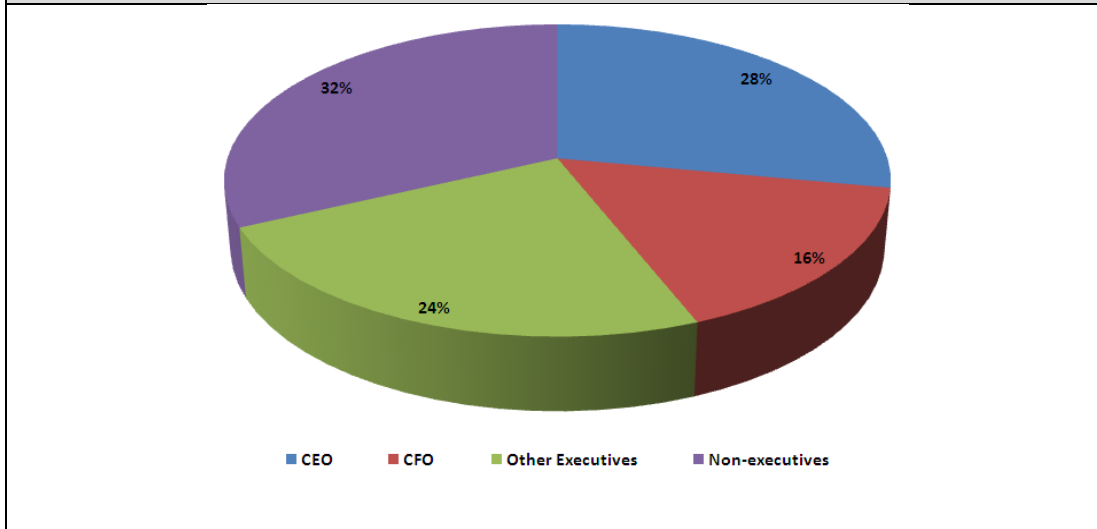


Table 1: Cronbach alpha reliability analysis	
Mean	25.1892
Standard deviation	9.43350
Valid N	37
Cronbach alpha	0.906238
Standardised alpha	0.910360
Average inter-item correlation	0.491438

According to Easterby-Smith *et al* (1999), reliability coefficients of around 0.6 are acceptable and coefficients around 0.9 are considered very reliable.

5.3 LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING BY COMPANIES

In addressing Research Questions 1 and 2, various descriptive statistics on the level of involvement scores were carried out and presented in Table 2. These included median, mode, population variance and standard deviations. In addition to this, the arithmetic mean or average level of involvement scores were computed and shown graphically in Figure 2. Note that the higher the

score is, the greater the involvement is. Table 3 shows the mean involvement scores tabulated in the various strategic planning and board involvement areas.

Table 2: Descriptive statistics on level of involvement scores in the various strategic goal setting and board involvement areas

		Median	Mode	Population variance	Standard deviation
Strategic goals	Approve	4.00	4.00	0.44	0.67
	Review	4.00	4.00	0.37	0.61
	Recommend	3.00	3.00	0.80	0.90
	Prescribe	2.50	3.00	1.78	1.35
Strategic targets	Approve	4.00	4.00	0.49	0.71
	Review	4.00	4.00	0.52	0.73
	Recommend	3.00	3.00	1.17	1.09
	Prescribe	2.50	4.00	1.90	1.39
Strategic processes	Approve	3.00	4.00	1.45	1.22
	Review	3.00	4.00	1.52	1.25
	Recommend	3.00	3.00	1.77	1.34
	Prescribe	2.00	4.00	2.10	1.46

Figure 2: Average level of involvement scores in the various strategic goal setting and board involvement areas

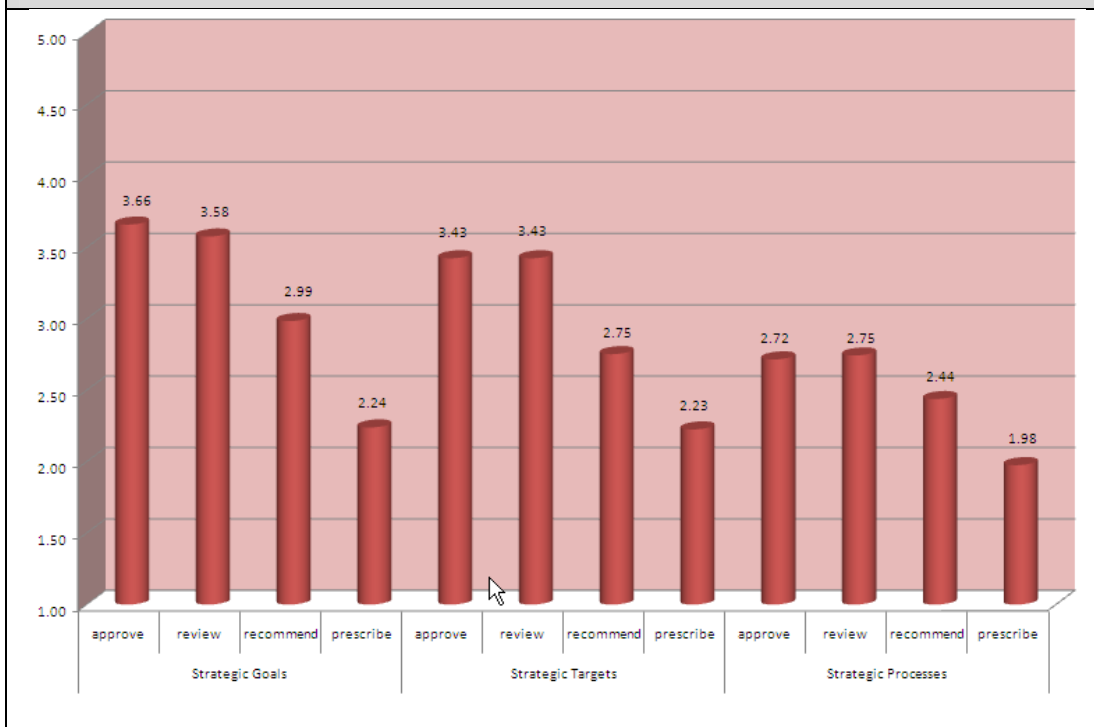




Table 3: Average level of involvement scores in the various strategic planning and board involvement areas

	Strategic goals	Strategic targets	Strategic process formation
Approve	3.66	3.43	2.72
Review	3.58	3.43	2.75
Recommend	2.99	2.75	2.44
Prescribe	2.24	2.23	1.95

5.4 STRATEGIC GOAL SETTING BY COMPANIES

In identifying the common strategic goals set by the JSE AltX companies, the data was collated and presented in the form of a frequency distribution as shown in Table 4. This result addressed Research Question 3.

Table 4: Number of respondents (companies) that selected the common strategic goals in the specific time periods

	Market share	EBITDA	ROCI	Cust. satisf.	Empl. satisf.	Qual.	Empl. turnov.	Cost	New prod.
6-12 months	25	27	19	32	29	32	13	35	25
13 months-under 3 years	10	16	17	8	11	4	13	8	15
3 years-under 5 years	7	4	8	2	1	6	4	0	3
Over 5 years	2	1	3	1	3	2	3	2	1
Row	44	48	47	43	44	44	33	45	44

In terms of how often these goals are reviewed, the data was consolidated at a company level with the arithmetic mean period taken in cases where there was more than one response from a company. The cross-tabulation shown in Table 5 indicates the percentage of companies that review the relevant goals in the specific time period.

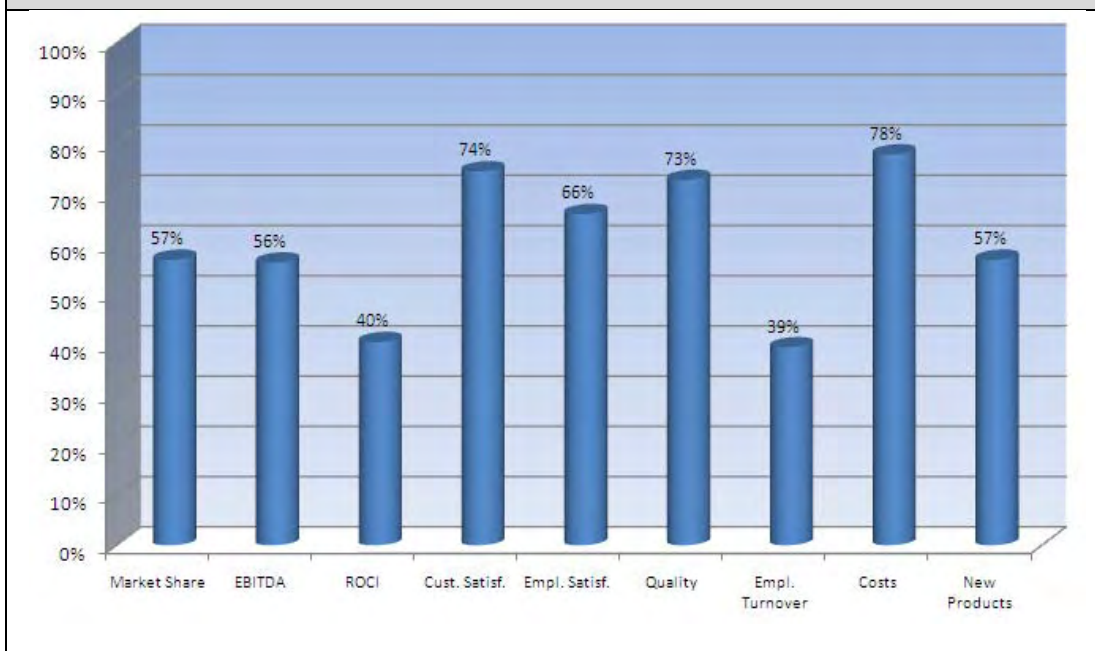


Table 5: Percentage of respondents (companies) that review strategic goals in specific time periods

	Market share	EBITDA	ROCI	Cust. satisf.	Empl. satisf.	Qual.	Empl. turnover.	Cost	New prod.
6-12 months	57%	56%	40%	74%	66%	73%	39%	78%	57%
13 months-under 3 years	23%	33%	36%	19%	25%	9%	39%	18%	34%
3 years-under 5 years	16%	8%	17%	5%	2%	14%	12%	0%	7%
Over 5 years	5%	2%	6%	2%	7%	5%	9%	4%	2%
Row	100%	100%	100%	100%	100%	100%	100%	100%	100%

In terms of reviewing the strategic goals, the time period of 6-12 months was selected and the various strategic goals were plotted, as shown in Figure 3, to determine which the most reviewed goal is currently. This result addressed Research Question 4.

Figure 3: Percentage of companies reviewing strategic goals in the 6-12 month period



5.5 ORGANISATIONAL SIZE AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

Organisational size was reflected by annual company turnover which was taken from the 2008 Annual Reports of the AltX companies under study. Three categories were created to reflect the size of the company, namely:

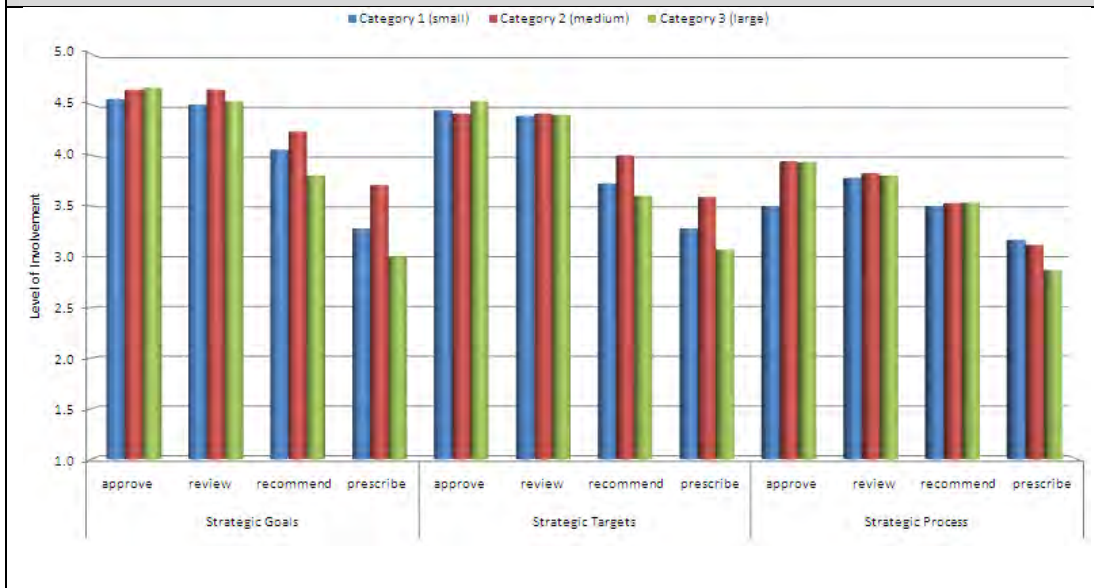
- Category 1 (small): R1 – R200 000 000 (12 companies)
- Category 2 (medium): R200 000 001 – R400 000 000 (13 companies)
- Category 3 (large): R400 000 001 – R1 900 000 000 (10 companies).

As indicated by the parenthesis, there were 12 companies in category 1, 13 companies in category 2 and 10 companies in category 3. Three sets of analyses were carried out, namely non-parametric statistics using response means, non-parametric statistics using response frequencies and parametric statistics using the t-test.

Figure 4 shows the level of involvement or involvement score by company size in each strategic planning area using non-parametric statistics and response means. In calculating response means, the Likert scale was regarded as having equal intervals.



Figure 4: Level of involvement by company size in the various strategic goal setting and board involvement areas



Figures 5 and 6 illustrate results presented using non-parametric statistics with response frequencies where ‘always involved’ and ‘often involved’ were combined into one category while ‘sometimes involved’, ‘seldom involved’ and ‘never involved’ were combined into another category. The reason for clustering this ordinal data resulted from a school of thought that says that the Likert scale is not represented by equal intervals. Hence this analysis created two clustered categories that were classified as ‘involved’ and ‘not involved’. Figure 5 illustrates the percentage of respondents by company size while Figure 6 illustrates the percentage of respondents by level of involvement.



Figure 5: Percentage of respondents by company size indicating level of involvement in the various strategic goal setting and board involvement areas

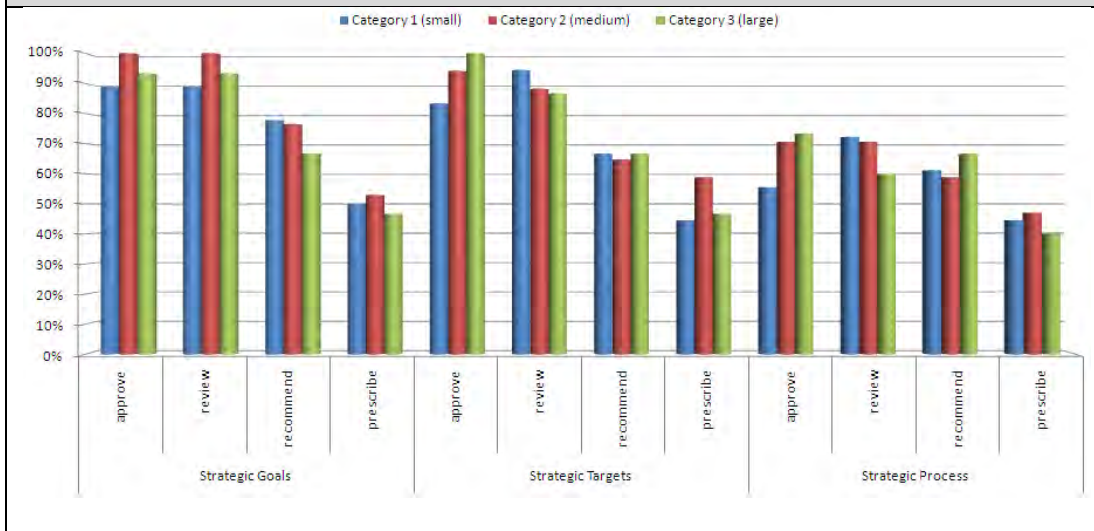
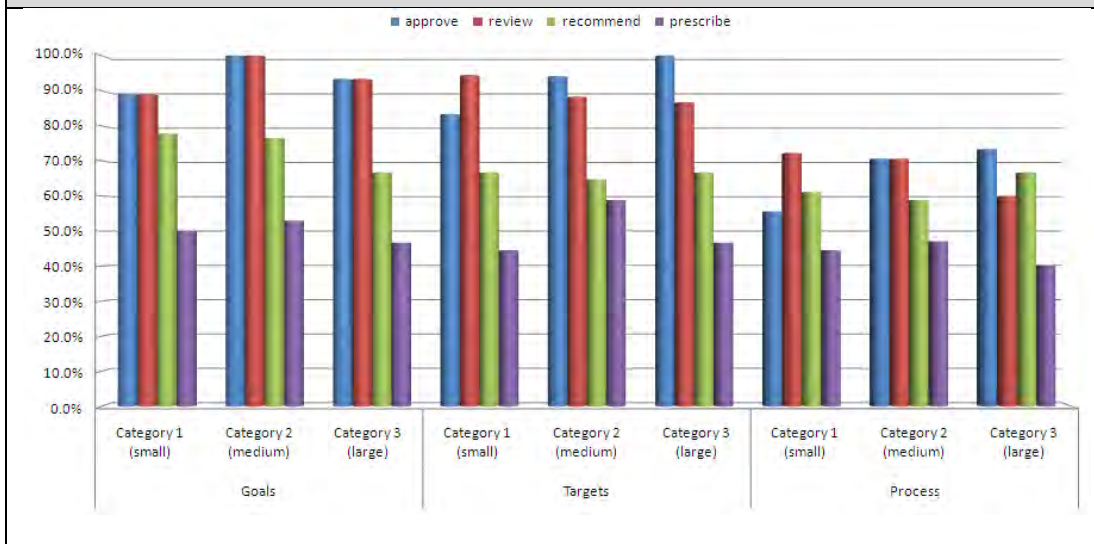


Figure 6: Percentage of respondents by level of involvement in the various strategic goal setting and board involvement areas



Parametric statistics using the t-test are presented in Table 6 and assumed equal intervals on the Likert scale. Furthermore, note that the analysis reflected that a lower mean score corresponds to a greater level of strategic involvement.

Table 6: Results of parametric t-test conducted on small and large companies using means at a 95% confidence level. The lower the score is, the higher the involvement is.

		Mean <R200m	Mean >R400m	t-value	df	p
Strategic goals	Approve	1.31	1.27	0.111239	22	0.912436
	Review	1.46	1.45	0.025372	22	0.979987
	Recommend	1.92	2.18	-0.653332	22	0.520313
	Prescribe	2.92	3.00	-0.131400	22	0.896653
Strategic targets	Approve	1.77	1.27	1.493376	22	0.149543
	Review	1.69	1.45	0.740979	22	0.466542
	Recommend	2.38	2.27	0.245361	22	0.808452
	Prescribe	3.00	2.91	0.158894	22	0.875202
Strategic process	Approve	2.62	1.82	1.506367	22	0.146198
	Review	2.46	2.09	0.687106	22	0.499195
	Recommend	2.69	2.45	0.412752	22	0.683783
	Prescribe	3.08	3.09	-0.022684	22	0.982107

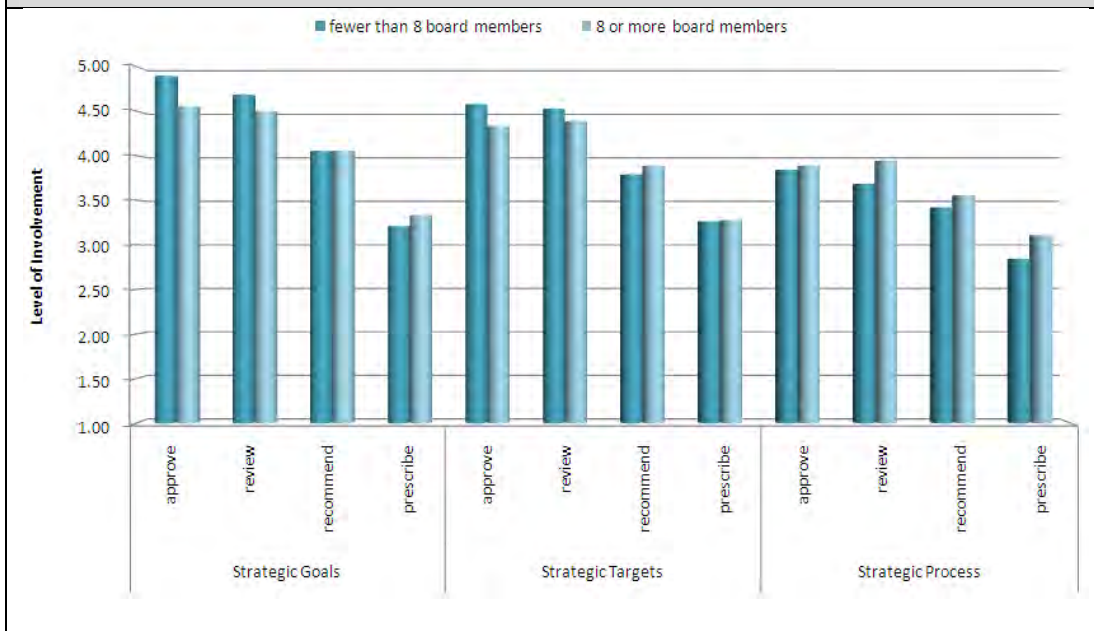
5.6 BOARD SIZE AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

For analysis purposes, the board size was taken from the JSE AltX companies' 2008 Annual Reports and a median split performed, i.e. < 8 (17 companies) and ≥ 8 (19 companies).

As indicated by the parenthesis, 17 companies that responded were classified as having small boards while 19 companies were classified as having large boards. Once again three sets of analyses were carried out, namely non-parametric statistics using response means, non-parametric statistics using response frequencies and parametric statistics using the t-test. Figure 7 shows the level of involvement by board size in each strategic planning area. Note that in calculating response means, the Likert scale was regarded as having equal intervals. It is also important to note that the graphical relationships presented

below show patterns or trends and do not indicate that these patterns or trends are statistically significant. However, with the parametric t-tests in Section 5.3, individual univariate t-test comparisons were carried out and tests for significance and correlations were undertaken to determine significance.

Figure 7: Level of involvement by board size in the various strategic goal setting and board involvement areas



In Figures 8 and 9 results are presented using non-parametric statistics using response frequencies where ‘always involved’ and ‘often involved’ were combined into one category while ‘sometimes involved’, ‘seldom involved’ and ‘never involved’ were combined into another category. The reason for clustering this ordinal data resulted from a school of thought that says that the Likert scale is not represented by equal intervals. Hence this analysis created two clustered categories that were classified as ‘involved’ and ‘not involved’. Figure 8 shows the percentage of respondents by board size while Figure 9 shows the percentage of respondents by level of involvement.



Figure 8: Percentage of respondents by board size indicating level of involvement in the various strategic goal setting and board involvement areas

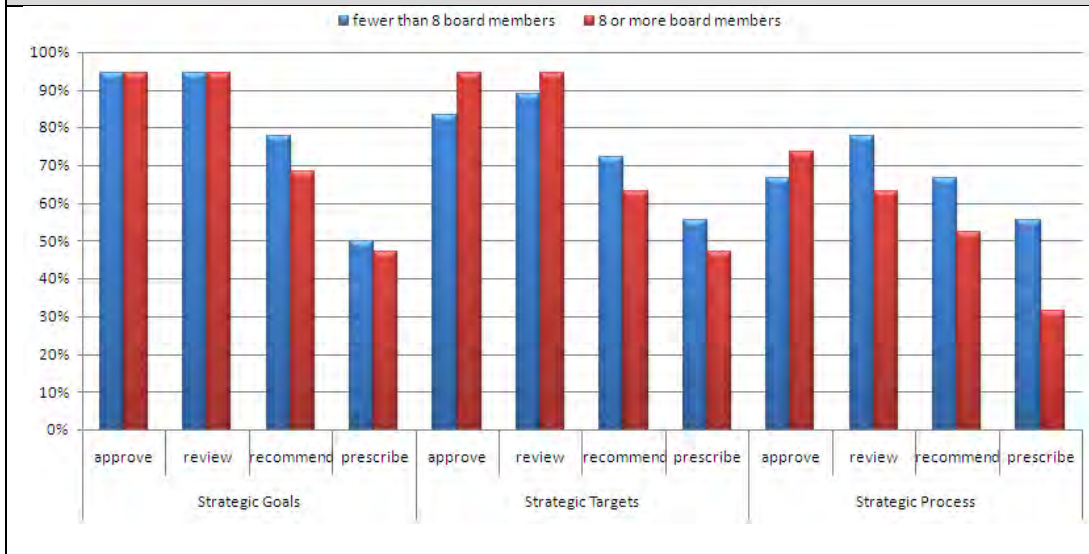


Figure 9: Percentage of respondents by level of involvement in the various strategic goal setting and board involvement areas for different board sizes

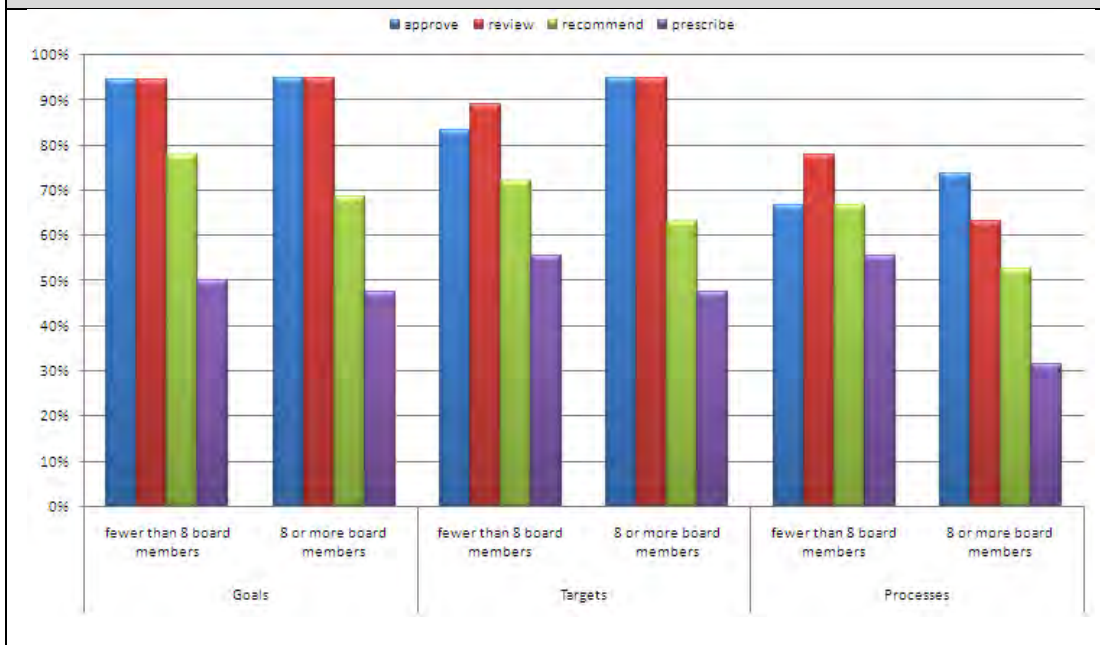


Table 7 shows the results of the parametric t-test that assumes equal intervals on the Likert scale. Furthermore, this analysis reflected that a lower arithmetic mean corresponds to a greater level of strategic involvement.

Table 7: Results of parametric t-test done on small and large boards using means at a 95% confidence level. The lower the score is, the higher the involvement is.

		Mean 8+	Mean <8	t-value	df	p
Strategic goals	Approve	1.11	1.44	-1.61702	35	0.114853
	Review	1.32	1.50	-0.93322	35	0.357099
	Recommend	1.95	1.94	0.00962	35	0.992380
	Prescribe	2.79	2.67	0.26954	35	0.789098
Strategic targets	Approve	1.42	1.67	-0.97260	35	0.337428
	Review	1.47	1.61	-0.56686	35	0.574428
	Recommend	2.21	2.11	0.27289	35	0.786540
	Prescribe	2.74	2.72	0.03072	35	0.975671
Strategic process	Approve	2.16	2.11	0.11214	35	0.911351
	Review	2.32	2.06	0.64264	35	0.524645
	Recommend	2.58	2.44	0.29108	35	0.772707
	Prescribe	3.16	2.89	0.53993	35	0.592663

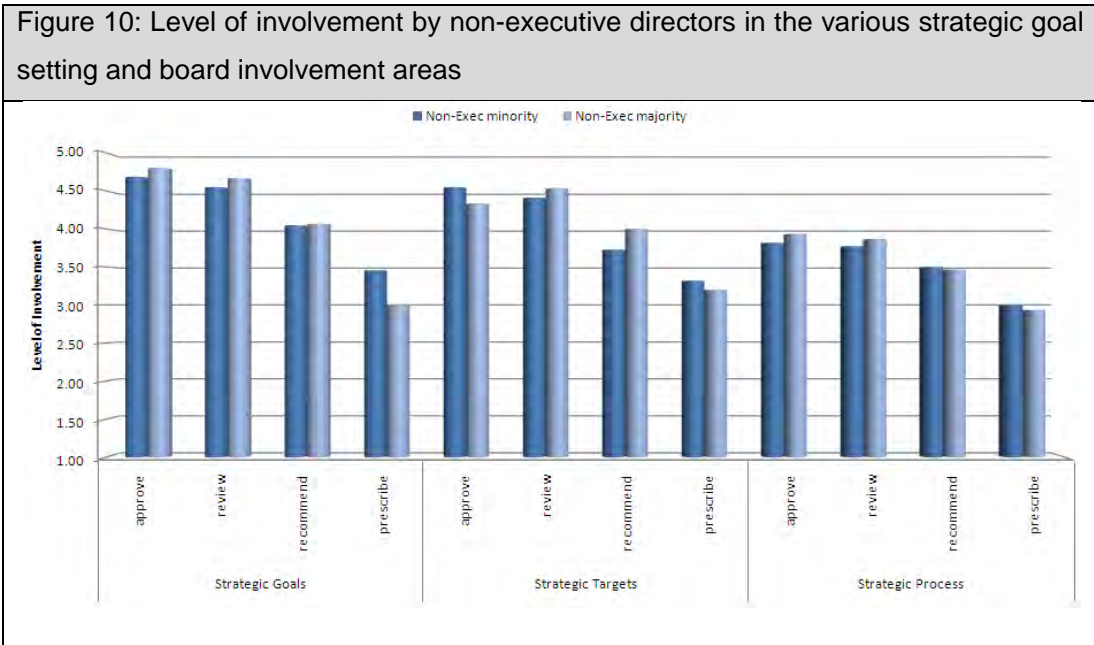
5.7 NUMBER OF NON-EXECUTIVES AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

The calculating of the number of non-executive directors board directors was carried out by referring to the AltX companies' 2008 Annual Reports. For this variable a median split was performed on the percentage of non-executive directors on the board, i.e. < 50% (21 companies) and > = 50% of board size (15 companies).

As indicated by the parenthesis, 21 companies were classified as having boards with a minority of non-executive directors while 15 companies were classified as

having boards where non-executive directors were a majority. Once again, three sets of analyses were carried out, namely non-parametric statistics using response means, non-parametric statistics using response frequencies and parametric statistics using the t-test.

Figure 10 shows the results on the level of involvement by non-executive directors in each strategic planning area. In calculating the response means, the Likert scale was regarded as having equal intervals. It is important to note that the graphical relationships presented below show patterns or trends and do not indicate that the patterns or trends are statistically significant. However, with the parametric t-tests individual univariate t-test comparisons were carried out and tests for significance and correlations were undertaken to determine statistical significance.



In Figures 11 and 12 results are presented using non-parametric statistics with response frequencies where ‘always involved’ and ‘often involved’ were combined into one category while ‘sometimes involved’, ‘seldom involved’ and ‘never involved’ were combined into another category. The reason for clustering this ordinal data resulted from a school of thought that says that the Likert scale is not represented by equal intervals. Hence this analysis created two clustered categories that were classified as ‘involved’ and ‘not involved’. Figure 11 shows the percentage of respondents by board size while Figure 12 shows the percentage of respondents by level of involvement.

Figure 11: Percentage of respondents by non-executive representation indicating level of involvement in the various strategic goal setting and board involvement areas



Figure 12: Percentage of respondents by level of involvement in the various strategic goal setting and board involvement areas for non-executive directors

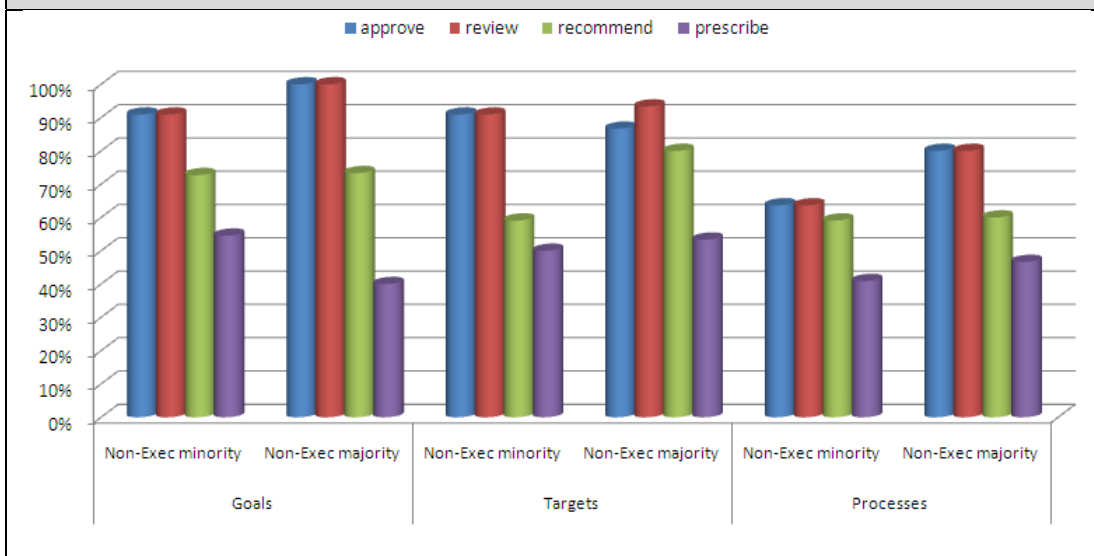


Table 8 shows the results of the parametric t-test that assumed equal intervals on the Likert scale. Furthermore, this analysis reflected that a lower arithmetic mean corresponds to a greater level of strategic involvement.

Table 8: Results of parametric t-test done on composition of non-executives using means at 95% confidence level. The lower the score is, the higher the involvement is.

		Mean <50%	Mean >=50%	t-value	df	p
Strategic goals	Approve	1.32	1.20	0.536055	35	0.595312
	Review	1.45	1.33	0.598876	35	0.553112
	Recommend	1.95	1.93	0.068553	35	0.945736
	Prescribe	2.55	3.00	-0.992653	35	0.327692
Strategic targets	Approve	1.45	1.67	-0.821995	35	0.416645
	Review	1.59	1.47	0.502916	35	0.618174
	Recommend	2.27	2.00	0.740324	35	0.464041
	Prescribe	2.68	2.80	-0.244099	35	0.808579
Strategic process	Approve	2.18	2.07	0.271374	35	0.787698
	Review	2.23	2.13	0.226708	35	0.821969
	Recommend	2.50	2.53	-0.070780	35	0.943976
	Prescribe	3.00	3.07	-0.130929	35	0.896581

5.8 LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING BY EXECUTIVES AND NON-EXECUTIVES

The strategic involvement was also analysed in terms of the level of involvement and the profile of the board of directors, namely executive versus non-executive directors. Figure 13 shows the pattern in terms of the level of involvement in the various strategic planning areas where the higher the number is, the greater the level of involvement is.

Figure 13: Mean involvement scores for executives and non-executives in the various strategic goal setting and board involvement areas



A parametric t-test was also carried out on the mean involvement scores for executives and non-executives in the various strategic planning areas to determine whether there is a relationship between the profile of the board of directors and the level of strategic involvement. The results are presented in Table 9.



Table 9: Parametric t-test carried out on executive and non-executive involvement scores at a 95% confidence interval

		Mean execs	Mean non- execs	t-value	df	p
Strategic goals	Approve	1.32	1.11	0.83853	35	0.407421
	Review	1.43	1.33	0.41008	35	0.684244
	Recommend	1.93	2.00	0.20183	35	0.841220
	Prescribe	2.61	3.11	0.96093	35	0.343179
Strategic targets	Approve	1.50	1.67	0.56153	35	0.578015
	Review	1.50	1.67	0.59034	35	0.558753
	Recommend	2.21	2.00	0.50622	35	0.615876
	Prescribe	2.57	3.22	1.19743	35	0.239185
Strategic process	Approve	2.18	2.00	0.36808	35	0.715034
	Review	2.25	2.00	0.52895	35	0.600180
	Recommend	2.61	2.22	0.71946	35	0.476637
	Prescribe	2.96	3.22	0.44381	35	0.659913

However, because the sample size was small as only nine non-executives responded, a confirmatory non-parametric Mann-Whitney U test was carried out and the results of this analysis are shown in Table 10. Note in parametric testing that the lower the number for the arithmetic mean is, the greater the involvement is.

Table 10: Non-parametric Mann-Whitney U test carried out on executive and non-executive involvement scores at a 95% confidence interval

		Rank sum execs	Rank sum non-ex	U	Z	p- value	Z	p- value
Strategic goals	Approve	546.00	157.00	112.00	0.48	0.63	0.70	0.48
	Review	538.00	165.00	120.00	0.19	0.85	0.23	0.82
	Recommend	520.00	183.00	114.00	-0.41	0.68	-0.43	0.67
	Prescribe	500.00	203.00	94.00	-1.12	0.26	-1.14	0.25
Strategic targets	Approve	510.00	193.00	104.00	-0.76	0.45	-0.87	0.38
	Review	511.50	191.50	105.50	-0.71	0.48	-0.80	0.42
	Recommend	537.00	166.00	121.00	0.16	0.87	0.17	0.87
	Prescribe	496.50	206.50	90.50	-1.24	0.22	-1.27	0.20
Strategic process	Approve	542.00	161.00	116.00	0.34	0.74	0.35	0.72
	Review	549.00	154.00	109.00	0.58	0.56	0.61	0.54
	Recommend	551.50	151.50	106.50	0.67	0.50	0.69	0.49
	Prescribe	519.00	184.00	113.00	-0.44	0.66	-0.45	0.65



5.9 CONCLUSIONS

The above results showed that there are a number of trends that can be interpreted using the non-parametric statistics through frequency tabulations, cross tabulations and graphs. However, these trends need to be tested for statistical significance and this was carried out through t-tests, the results of which were tabulated.

CHAPTER 6: DISCUSSIONS

6.1 INTRODUCTION

The results presented in Chapter 5 are now discussed in more detail, and insight into the findings is outlined using the objectives of the research, research questions stated and the hypotheses that were developed and stated in Chapter 3. Reference to the literature survey presented in Chapter 2 is stated where appropriate.

In terms of the respondents highlighted in Figure 1, there was a good mix between the various profiles. However, in terms of executive directors versus non-executive directors, the response profile was skewed with 68% and 32% respectively.

6.2 LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING BY COMPANIES

The data was presented in a number of forms to indicate the level of involvement by directors. Table 3 indicated that in the 'approve' board involvement area, the involvement score was highest for 'strategic goals' followed by 'strategic targets' and then 'strategic process formation'. This was the same with the other board involvement areas namely, 'review', 'recommend' and 'prescribe'. The median and mode values in Table 2 indicated where the level of involvement or involvement scores lie and the common score received

in each category respectively. The median and mode values were computed in each unidimensional construct or strategic planning area. It appeared that the scores were just above the middle level of involvement or score of '3' being 'sometimes involved'. This matched previous empirical studies, for instance Oliver (2000) who found that most boards occupy a middle ground when it comes to becoming involved in the formal strategic planning process and Siciliano (2005) who reported that the board's level of participation in strategic planning is at the mid-range being strategy review.

Table 2 also showed the population variance and standard deviation of the data received on the involvement scores. A noteworthy observation is that there was not enough variability in the data. This was confirmed by the low standard deviation values obtained for the data in the categories. Easterby-Smith *et al* (1999) mentioned that the higher the standard deviation is, the more dispersed the data is. Hussey and Hussey (1997) further stated that the standard deviation is the most important measure of spread because it uses every value and is in the same units as the original data. The bigger the spread is, the bigger the standard deviation is. Therefore, the data in the areas was not normally distributed and there was not much variability in the involvement scores collected.

The arithmetic means of the scores shown graphically in Figure 2 showed a consistent trend in all three unidimensional constructs or strategic planning areas in that there was greater involvement in 'approve' and 'review' compared to 'recommend' and 'prescribe'. Concepts on level of involvement presented in

literature such as the traditional perception level (Ingley and Van der Walt, 2001), shallowest level of involvement (Kemp, 2006), passive school level (Brauer and Schmidt, 2008) and strategy review level (Siciliano, 2005) were aligned to the approving and recommending of strategy by boards.

In the 'strategic goals' planning area, the level of involvement for 'approve' and 'review' was similar and lay between '3' and '4' being 'sometimes involved' and 'often involved' respectively. Recommending strategic goals had an involvement score of just below '3' while prescribing goals was closer towards '2', being 'seldom involved'. Similar results were found in the setting of 'strategic goal targets' planning area with the involvement scores only slightly lower than the 'strategic goals' but having the same trend. In the planning area where boards defined the 'strategic goal formation process', the level of involvement when it came to 'approve' and 'review' dropped significantly when compared to the previous two planning areas. This clearly indicated that the board's role in this area of strategy planning was limited. Zahra and Pearce (1990) reported that variations in the level of board involvement in strategic issues could be due to differences in the composition, internal processes and characteristics of the boards. For this reason a number of hypotheses were established and tested to understand the variations in the level of board involvement.

Therefore in addressing Research Question 1, the level of board involvement in strategic goals was above mid-level for 'approve' and 'review', at mid-level for 'recommend' and below mid-level for 'prescribe'. Note that a score of '3' was considered to be at mid-level or 'sometimes involved' as per the questionnaire

design. For strategic goal targets, the level of board involvement was above mid-level for 'approve' and 'review' but below mid-level for 'recommend' and 'prescribe'. In strategic goal formation process, 'approve', 'review' and 'recommend' were below mid-level in terms of involvement in strategy with 'prescribe' being at a low level with a score below '2', being 'seldom involved'.

In terms of Research Question 2, taking the average level of involvement scores shown in Figure 2 and the data presented in Table 3 it appeared that the strategic goals planning area had the highest level of board involvement in strategy followed by strategic goal targets and strategic goal formation processes.

Therefore this addressed the first part of the purpose of the research, namely to understand the level of board involvement in strategic goal setting and, in particular, the level of involvement in defining strategic goals, setting strategic goal targets and strategic goal formation process.

6.3 GOAL SETTING BY COMPANIES

The most common goals selected by companies as shown in Table 4 included EBITDA followed by ROCI (return on capital invested) and then Cost. In terms of EBITDA, 48 of the 50 respondents listed it as a goal. ROCI had 47 selections while Cost was selected 45 times by the 50 respondents. Other strategic goals that were not listed on the questionnaire but were listed under 'other' included a response each for 'acquisitions', 'new markets' and 'succession planning' while

there were four responses for new development projects. Therefore in addressing Research Question 3, the most common goals set by JSE AltX companies were EBITDA, ROCI and Cost.

It was evident from Table 5 that goals were predominantly reviewed every 12 months. This is indicative of the rapid changes in the global competitive environment and the current macroeconomic conditions. Within the 12-month period, Cost appeared to be the strategic goal most often reviewed as indicated in Figure 3. Cost is reviewed within 12 months by 78% of the 45 companies that selected it as a goal. This was closely followed by Customer Satisfaction (74%) and Quality (73%). The least reviewed strategic goals in the first 12 months included Employee Turnover (39%) and ROCI (40%) which were the only strategic goals of less than 50% of companies that responded. However, Table 5 indicated that Employee Turnover and ROCI were the most reviewed strategic goals in the timeframe between 13 months and three years. In the three-year to five-year timeframe, ROCI was the most reviewed goal while in the over five year timeframe Employee Turnover was the most reviewed goal. This trend indicated that ROCI and Employee Turnover were considered by the boards of directors of AltX companies to be long-term goals. The above findings dealt with Research Question 4.

The findings above supported Gabris (1989) who mentioned that the central purpose of strategic goal setting for organisations is to identify fundamental goals and to prioritise or rank order them in relation to their importance for the organisation. It was evident from the results that certain strategic goals were

given more priority over others by the listed companies and these strategic goals need to be reviewed on an annual basis to compensate for the changing trends and macroenvironmental factors that affect business.

Therefore this addressed the second objective of the research, namely to understand what the common strategic goals set by companies listed on the Alternative Exchange (AltX) of the Johannesburg Stock Exchange (JSE) are and how often the strategic goals are reviewed by these companies.

6.4 ORGANISATIONAL SIZE AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

Studying the response mean results in Figure 4 where the Likert scale was assumed to have equal intervals, it was shown that there are not many differences in the level of involvement for the different size categories in the three strategic planning areas. There was a tendency for 'medium' sized companies in the 'strategic goals' and 'strategic targets' planning areas to be slightly more involved than the 'small' and 'large' companies when it came to 'recommending' and 'prescribing'. Note that the above observations, patterns and trends do not imply that the relationships are statistically significant. This was demonstrated through parametric testing.

Figure 5 illustrated the percentage of respondents where the Likert scale was not assumed to be at equal intervals and the data was categorised into 'agree' versus 'disagree'. It was shown that in this case when it came to 'approve' and

'review' of strategic goals, 100% of respondents from medium-size companies agreed that the board is involved when approving and reviewing strategic goals. In the rest of the categories, in the three strategic planning areas no trend or pattern was observed. Figure 6 presented the data in a different manner to establish any patterns or trends. Once again, the involvement scores were high when it came to strategic goals and targets compared to strategic processes with a higher involvement around 'approve' and 'review'. However, no trends were visible with regards to organisational size.

Parametric statistics using the t-test assumed equal intervals on the Likert scale and the results were presented in Table 6. Furthermore, this analysis reflected that a lower mean corresponds to a greater level of strategic involvement. The cells highlighted in blue supported the research hypotheses. However, they were not statistically significant at a 95% confidence level since the p-values (green cells) were greater than 0.05. Table 6 indicated that involvement was greater in larger companies when it came to approving strategic goals; approving, reviewing, recommending and prescribing strategic targets; and approving, reviewing and recommending the strategic process. However, as indicated by the p-values, the results were not statistically significant at a 95% confidence level and hence the research or alternate hypotheses H1₁ to H12₁ were all rejected. There is therefore no difference in the level of board involvement in strategic goal setting of bigger versus smaller companies.

Earlier studies (Oliver, 2000) showed that the level of board involvement in strategy was higher in small companies while later studies (Fiegener, 2005;

Brauer and Schmidt, 2008) indicated that board involvement was higher in larger companies. The literature was therefore divided in terms of the effect of organisation size on the level of board involvement in strategy. However, an important factor was mentioned by Rosenstein (1988) who highlighted the role of the venture capitalist in increasing the level of strategy involvement in small companies. It would be expected that as the organisation grows in terms of revenue, the venture capitalist will exit and the level of involvement in strategy would diminish. Hence, this argument needs to be taken forward and tested in a follow-up study.

A possible reason why there was no statistically significant relationship established between organisational size and the level of involvement in this data set could be attributed to the response sample of 36 which might have been too small to obtain enough variability in the data. The limited variability in the data was evident by the standard deviation values obtained in Table 2.

6.5 BOARD SIZE AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

The response mean results in Figure 7 for 'strategic goals' showed that the level of involvement was higher for smaller boards when it came to 'approve' and 'review' but lower when it came to 'prescribe'. For the 'strategic target' planning area, the level of involvement was higher in smaller companies for 'approve' and 'review' but lower for 'recommend'. Finally, when it came to the 'strategic process', the level of involvement was lower in all categories for smaller boards.

In results presented as response means, the Likert scale was assumed to have equal intervals.

Studying the percentage of respondents in Figure 8, the level of strategy involvement in strategic goals was higher with smaller boards for 'recommend' and 'prescribe'. In terms of strategic targets, the level of involvement by smaller boards was lower for 'approve' and 'review' but higher for 'recommend' and 'prescribe'. When it came to 'strategic process', the level of strategy involvement was higher in smaller boards for 'review', 'recommend' and 'prescribe'. The result for 'approve' was the opposite where the level of involvement was higher for larger boards.

Figure 9 showed a trend where the strategy involvement scores decreased consistently with the previous trends found when studying the level of involvement scores in §6.3. Strategic targets and processes were the exception in the case of companies with smaller boards. In these two cases the 'review' scores were higher than the 'approve' scores. Furthermore, in general the results did not indicate a difference between the level of involvement in each strategic planning area between large and small board sizes. Note that the results in Figures 7 to 9 were based on non-parametric statistics and hence the patterns and trends observed do not imply that the relationships were statistically significant.

Table 7 was the outcome of the parametric t-test which assumed equal intervals on the Likert scale and presented the analysis such that a lower mean

corresponded to a greater level of strategic involvement. The cells highlighted in blue supported the research hypothesis. However, it was not statistically significant at a 95% confidence level since the p-values (green cells) were greater than 0.05. The results therefore indicated that involvement was greater in smaller boards when it came to 'prescribing' strategic goals; 'recommending' strategic targets; and 'reviewing', 'recommending' and 'prescribing' the strategic process. However, as indicated by the p-values, the results were not statistically significant at a 95% confidence level and hence the research or alternate hypotheses H13₁ to H24₁ were all rejected. There was therefore no difference in the level of board involvement in strategic goal setting of companies with more versus fewer board members.

The literature was divided on the issue of the effect that board size has on strategy involvement. The above findings supported Ruigrok *et al* (2006) view that board size is not related to board involvement in strategy. Ruigrok *et al* (2006) was of the opinion that no matter how big or large the board is, the key factor determining the level of strategy involvement is how active and engaged the directors are during board meetings. This measure is subjective and can only be determined through observations or qualitative research using a neutral sample population such as company secretaries.

Once again, a reason why no statistically significant relationship could be established between level of involvement and board size in this analysis was possibly due to the response sample size of 36, which perhaps should have been bigger to obtain significant variability in the data and a normal distribution.

The limited variability in the data was evident from the standard deviation values obtained in Table 2.

6.6 NUMBER OF NON-EXECUTIVES AND LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING

Response means shown in Figure 10 indicated that in the 'strategic goals' planning area, the level of involvement was higher when the board had a majority of non-executive directors when it came to 'approve' and 'review', but there was a lower level of involvement for 'prescribe'. In the strategic target area, the level of involvement was higher when the board comprised more non-executive directors for 'review' and 'recommend' and there was a lower level of involvement for 'approve' and 'prescribe'. With 'strategic process', the level of involvement was similar except for 'approve' and 'review' where the involvement was slightly higher in boards with a majority of non-executive directors. However, the differences in the level of involvement scores did not appear to be significant. The Likert scale used for the analysis presented in Figure 10 was assumed to have equal intervals.

Figure 11 presented the analysis where the responses were clustered into 'involved' and 'not involved' to find more meaningful patterns and trends using non-parametric statistics. There were a number of areas where the level of strategy involvement was higher in boards that had a majority of non-executive directors. It was only in 'prescribing' strategic goals and 'approving' strategic targets where the board containing a minority of non-executive directors

reported a higher level of strategy involvement. When it came to ‘approving’ and ‘reviewing’ strategic goals, 100% of respondents on non-executive boards said that there is involvement. There was a significant difference of 20% in ‘recommending’ strategic targets between non-executive majority boards and non-executive minority boards.

Representing the data in a different form, Figure 12 indicated that boards having a non-executive majority were, in general, more involved in strategy when it came to ‘strategic goals’ and ‘strategic processes’. The level of involvement for ‘strategic targets’ appeared to be similar for both the non-executive majority and non-executive minority boards. Another observation was that for ‘strategic goals’, close to 100% of respondents sitting on non-executive majority boards said that they were involved in defining or setting strategic goals. The analyses in Figures 10 to 12 were based on non-parametric statistics and hence the patterns and trends observed did not imply that the relationships were statistically significant.

Analysis from the parametric t-test, which assumed equal intervals on the Likert scale, was shown in Table 8 bearing in mind that a lower mean corresponded to a greater level of strategic involvement. The cells highlighted in blue supported the research hypothesis. However, it was not statistically significant at a 95% confidence level since the p-values (green cells) were greater than 0.05. The results therefore indicated that involvement was greater in boards having a minority of non-executives when it came to ‘prescribing’ strategic goals, and ‘approving’ and ‘prescribing’ strategic targets. However, as indicated by the p-

values, the results were not statistically significant at a 95% confidence level and hence the research or alternate hypotheses H25₁ to H36₁ were all rejected. There is therefore no difference in the level of board involvement in strategic goal setting of companies with more versus fewer non-executive board members.

The literature debates around the influence of non-executive directors on strategy involvement at board level were centred on whether non-executive directors know enough about the company to be active in the strategy process versus the notion that non-executive directors bring to the board unique skills and knowledge that add value to the strategy-making process.

The Ruigrok *et al* (2006) study found no evidence that the percentage of non-executive directors on the board was related to strategy involvement. Roberts *et al* (2005) mentioned that the key aspect in terms of assessing the role of non-executives in strategy involvement is to determine how active non-executive directors are on the board and not the number of non-executives on the board. Once again this highlights the need to focus future research on understanding the behavioural dynamics of the boardroom through observation or independent third-party interviews such as company secretaries.

There could be a number of reasons why no relationship could be established between the proportion of non-executives sitting on the board and the level of board involvement in strategy in this analysis. Firstly, the low standard deviation values obtained in Table 2 indicated low variability in the data, secondly the

response sample size of 36 might be too small and finally, the median split between executive and non-executive dominated boards was disproportionate since there were 21 companies that had a non-executive minority board compared to 15 companies that had a non-executive majority board. This disproportionate split would also contribute towards the variability problem encountered with the data.

Sections 6.4 to 6.6 therefore addressed the third objective of the research, namely to determine whether there was a relationship between independent variables such as organisational size, board size and number of non-executive directors sitting on the board, and the level of board involvement in strategic goal setting.

6.7 LEVEL OF BOARD INVOLVEMENT IN STRATEGIC GOAL SETTING BY EXECUTIVES AND NON-EXECUTIVES

The mean involvement scores in Figure 13 showed that, on the one hand, non-executive directors had a higher perception of board involvement when it came to 'approving' and 'reviewing' strategic goals; 'recommending' strategic goal targets; and 'approving', 'reviewing' and 'recommending' strategic processes. On the other hand, executive directors had a higher perception of the board's involvement in strategy when it came to 'recommending' and 'prescribing' strategic goals; 'approving', 'reviewing' and 'prescribing' strategic targets; and 'prescribing' strategic processes. It is interesting to note that when it came to prescription in all three planning areas, non-executive directors regarded their

involvement below '3' which is considered 'seldom involved'. However, non-executives believed their role in 'approving' to be high since the mean score was above '4' being 'often involved'.

To determine whether this finding was significant, a parametric t-test carried out and shown in Table 9 did not establish a significant relationship (95% confidence level) as p-values were greater than 0.05. However, because the sample size was small in terms of only nine non-executives responding, a confirmatory non-parametric Mann-Whitney U test was carried out and presented in Table 10. This analysis confirmed that the results were not significant and that no relationship could be established between the profile of the board of directors and the level of strategic involvement.

Roberts *et al* (2005) mentioned that the perception of non-executives is that the review of strategic initiatives is a central feature of their contribution, and that their presence in the minds of the executive helps to 'raise the bar' in terms of the quality of strategic proposals and the effectiveness of decision making.

In terms of Research Question 5, does the perceived level of board involvement in strategy differ between executive and non-executive board of directors? The limitations of not having enough non-executives responding to the survey and also the lack of variability in the data as highlighted in §6.3, prevented this research question from being answered. However, this addressed the fourth purpose of this research in terms of determining the level of board involvement

in strategic goal setting between executive and non-executive boards of directors.

CHAPTER 7: CONCLUSIONS

7.1 INTRODUCTION

The level of board involvement in strategic goal setting for companies listed on the Alternative Exchange (AltX) of the Johannesburg Stock Exchange (JSE) varied in the different strategic planning areas. However, most strategic planning and board involvement areas fell between the levels of 'seldom involved' to 'often involved'. The exception was 'prescribing' strategic goal formation process where the level was between 'never involved' and 'seldom involved'. It was further found that the board's involvement in strategic goal setting was highest in setting strategic goals and lowest in setting strategic goal formation processes. These findings indicated that the boards were generally involved at mid-level and were not becoming involved in setting strategic goal formation processes which is interesting since it was expected that boards would become involved in the strategy-making process at an early stage. Involvement in the strategic goal formation processes would ensure that better consensus is reached by the board when it comes to defining strategic goal setting and targets.

The most common goal set by AltX companies on the JSE was EBITDA (earnings before interest, taxes, depreciation and amortisation), which is a financial strategic goal. Ninety-six per cent of companies that responded identified EBITDA as a goal. The insight that can be drawn from this finding is that EBITDA would be a typical metric for the CEO's performance and hence

would be a key strategic goal for executive directors. This indicated therefore that boards were significantly influenced by executive directors to put in place strategic goals that would have an impact on their performances.

Cost was found to be the most frequently reviewed strategic goal while Employee Turnover and ROCI were the least frequently reviewed strategic goals. The mere fact that Cost was commonly being reviewed indicated that in the current context of the global economic recession and the fall in demand for goods, companies are forced to undertake cost-saving exercises more regularly. Employee salaries and wages are usually a significant contributor to company costs and hence the massive job losses that are currently being witnessed globally.

Independent variables such as organisational size, board size and number of non-executives on the board were not found to correlate statistically with the level of board involvement in strategic goal setting. This indicated that these factors do not influence the level of board involvement in strategic goal setting for AltX companies on the JSE. Therefore there could be other factors that would influence the level of board involvement in strategic goal setting.

The perception that non-executive directors have of their level of involvement in strategic goal setting was that they are often involved in 'approving' strategic goals, strategic targets and strategic goal formation process but are seldom involved in 'prescribing'. However, due to the disproportionate number of non-executives and executives that responded, this perception of strategy

involvement could not be statistically established. The insight from this finding is that non-executive directors might feel that they are not responsible for taking a lead role in prescribing strategy and hence assume more of an 'agency' role of approving strategy.

7.2 RECOMMENDATIONS TO STAKEHOLDERS

Because of the collective set of skills and knowledge expected on a board of a company, it is imperative that the board as a whole become involved at the start of the strategy-making process by prescribing the strategic goal formation process. Becoming involved at this stage will create a platform that will allow a seamless process of approving the strategic goals and strategic goal targets at a later stage.

The main objective of a business is to drive company value for the benefit of its owners or shareholders. Return on capital invested (ROCI) is a typical strategic goal that measures value creation. Despite only three respondents not having ROCI as a strategic goal and because ROCI was one of the least frequently reviewed strategic goals, it is recommended that boards have ROCI as a common strategic goal and that it should be reviewed more often.

Despite not establishing a relationship between board size and number of non-executives, and the level of board involvement in strategic goal setting; it is recommended that the determinants of these two factors be driven by selecting individuals that are active board members and that can contribute to strategic

formulation. Therefore as highlighted by Ruigrok *et al* (2006) and Roberts *et al* (2005), it is not about the ‘numbers’ on the board, it is about the ‘quality’ of the directors on the board.

7.3 LIMITATIONS OF THE RESEARCH

Due to the nature of the targeted population, namely boards of directors of publicly listed companies, and the survey method being an optional questionnaire administered via email, a limitation of this research was the low response rate from directors. The average board size of companies listed on the JSE’s AltX was seven, yet the most responses received from a company were three and this was only one company. The low response rate from boards of directors of companies could compromise the true dynamics in the boardroom when it comes to the level of board involvement in strategic goal setting.

The boards of directors of some publicly listed companies could have foreign directors who do not attend the full quota of annual board meetings and hence would not have enough insight to complete the survey accurately. Furthermore, there could be directors that recently joined the board and that would not have insight into the level of board involvement in strategic goal setting.

Due to the 2009 Annual Reports not being available for all AltX companies, secondary data on independent variables for this research was sourced from the companies’ Annual Reports for 2008. A year later, there could have been

cases where directors resigned from their positions or boards could have recruited new directors, hence changing the numbers in terms of board size and non-executives sitting on the company board.

7.4 RECOMMENDATIONS FOR FUTURE RESEARCH

Rosenstein (1988) highlighted that in small, high-technology firms with venture capital backing, involvement in strategy is high. Since the AltX companies are smaller, younger companies than the companies listed on the main board of the JSE, there is a strong likelihood that they have either angel investors or venture capitalists' sitting on their boards ensuring that strategy involvement is high. It is therefore recommended that the ownership of the AltX companies be viewed as an independent variable to be tested against the level of board involvement in strategic goal setting. Other variables that could be selected for a future study include interlocking directorships, market share and duality where one person occupies both the role of CEO and Chairman.

A possible recommendation is to repeat the study using a different research methodology in the form of a qualitative approach where a few companies are selected and interviews conducted with all the board of directors. Furthermore, a case-based research methodology could also be chosen where a few companies are selected and a number of independent variables chosen to determine the level of board involvement in strategic goal setting.

This research could be replicated to target another population such as the companies on the main board of the JSE or even the companies listed on the Dow Jones in the United States where strategy-related surveys are common. An interesting option could be to repeat this study for board of directors sitting on South African state-owned enterprises.

REFERENCES

Amason, A. C. and Sapienza, H. J. (1997). The effects of top management team size and interaction norms on cognitive and affective conflict. *Journal of Management*, **23**, 4, 495–516.

Beaver, G., Davies, A. and Joyce, P. (2007) Leadership boards of directors. *Business Strategy Series*, Vol. 8, No. 4, pp. 318-324. Emerald Group Publishing Limited, ISSN 1751-5637.

Brauer, M. and Schmidt, S.L. (2008) Defining the strategic role of boards and measuring boards' effectiveness in strategy implementation. *Corporate Governance*, Vol. 8, Issue 5, pp. 649-660.

Collier, N., Fishwick, F. and Floyd, S.W. (2004) Managerial Involvement and Perceptions of Strategy Process. *Long Range Planning*, Vol. 37, pg 67-83.

DeMaio, T.J., Bates, N., Willimack, D. and Ingold, J. (2006) Questionnaire Testing and Evaluation Methods for Censuses and Surveys. *US Census Bureau*, Version 1.2, 09 March 2006.

Deutsch, Y. (2005) The impact of board composition on firms' critical decisions: a meta-analytic review. *Journal of Management*. Vol. 31, No. 3, pp. 424-444, June 2005, Sage.

Easterby-Smith, M., Thorpe, R. and Lowe, A. (1999) *Management Research An Introduction*. London. Sage Publishers.

Fiegener, M.K. (2005) Determinants of Board Participation in the Strategic Decisions of Small Corporations. *Entrepreneurship Theory and Practice*, September 2005, pg 627-650.

Finkelstein, S. and Mooney, A.C. (2003) Not the usual suspects: How to use board process to make boards better. *Academy of Management executive*, Vol. 17, No. 2.

Forbes, D.P. and Milliken, F.J. (1999) Cognition and corporate governance: understanding boards of directors and strategic decision-making groups. *Academy of Management Review*, Vol. 24, No. 3, pp. 489-505.

Gabris, G.T. (1989) Educating elected officials in strategic goal setting. *Public Productivity and Management Review*, Vol. 13, No. 2, pp. 161-175, ME Sharpe Inc.

Golden, B. R. and Zajac, E. J. (2001). When will boards influence strategy? Inclination x power =strategic change. *Strategic Management Journal*, **22**, 1087–111.

Goold, M. and Campbell, A. (1990) Brief case: non-executive directors' role in strategy. *Long Range Planning*, Vol. 23, No. 6, pp. 118 to 119, Pergamon Press plc.

Gravetter, F.J. and Forzano, L.B. (2003) *Research Methods for the Behavioral Sciences*. Belmont, USA: Thomson Wadsworth.

Hendry, K. and Kiel, G.C. (2004) The Role of the Board in Firm Strategy: integrating agency and organisational control perspectives. *Corporate Governance*, Vol. 12, No. 4, October 2004.

Hodgkinson, G.P., Whittington, R., Johnson, G. and Schwarz, M. (2006) The role of strategy workshops in strategy development processes: formality, communication, co-ordination and inclusion. *Long Range Planning*, Vol. 39, pp. 479-496, Elsevier Ltd.

Hussey, J. and Hussey, R. (1997) *Business Research*. 1st ed. New York. Palgrave.

Ingle, C.B. and Van der Walt, N.T. (2001) The strategic board: the changing role of directors in developing and maintaining corporate capability. *Corporate Governance*, Vol. 9, No. 3, July 2001, Blackwell Publishers Ltd.

Jaskiewicz, P. and Klein, S. (2007) The impact of goal alignment on board composition and board size in family business. *Journal of Business Research*, Vol. 60, pp. 1080-1089.

Jonsson, E.I. (2005) The role model of the board: a preliminary study of the roles of Icelandic boards. *Corporate Governance*, Vol. 13, No. 5, September 2005, Blackwell Publishing Ltd.

Judge, W. Q. Jr and Zeithaml, C. P. (1992) Institutional and strategic choice perspectives on board involvement in the strategic decision-making process. *Academy of Management Journal*, Vol 35, No. 4, October 1992.

Kelly, J. and Gennard, J. (2007) Business strategic decision-making: the role and influence of directors. *Human Resource Management Journal*, Vol. 17, No. 2, Blackwell Publishing Ltd.

Kemp, S. (2006) In the driver's seat or rubber stamp? The role of the board in providing strategic guidance in Australian boardrooms. *Management Decision*, Vol. 44, No. 1, pp. 56-73. Emerald Group Publishing Limited.

Latham, G.P. and Locke, E.A. (2006) Enhancing the benefits and overcoming the pitfalls of goal setting. *Organizational Dynamics*, Vol. 35, No. 4, pp. 332–340, Elsevier Inc.

Lawler, E.E. and Finegold, D. (2006) Who's in the boardroom and does it matter: the impact of having non-director executives attend board meetings. *Organizational Dynamics*, Vol. 35, No. 1, pp. 106–115, Elsevier Inc.

Long, T. E. (2007) The evolution of FTSE 250 boards of directors: key factors influencing board performance and effectiveness. *Journal of General Management*, Vol. 32, No. 3, Spring 2007.

Long, T. E., Dulewicz, V. and Gay, K. (2005) The role of the non-executive director: an empirical investigation into the differences between listed and unlisted UK Boards. *Corporate Governance*, Vol. 13, No. 5, September 2005. Blackwell Publishing Ltd.

McBurney, D.H. (2001) *Research Methods*. 5th ed. Belmont: Wadsworth.

Molz, R. (1987) How leaders use goals. *Long Range Planning*, Vol.20, No.5, pp. 91-101, Pergamon Press Ltd.

Mueller, G. C. and Baker, V. L. III (1997) Upper echelons and board characteristics of turnaround and non-turnaround declining firms. *Journal of Business Research*, **39**, 119–34.)

Nadler, D.A. (2004) What's the board's role in strategy development?: Engaging the board in corporate strategy. *Strategy and Leadership*, Vol. 32, No. 5, pp. 25-33, Emerald Group Publishing Limited, ISSN 1087-8572.

Oliver, R.W. (2000) The Board's Role: Driver's Seat or Rubber Stamp. *Journal of Business Strategy*, Vol. 21, No. 4, July/August 2000.

Pugliese, A., Bezemer, P.J., Zattoni, A., Huse, M., van den Bosch, F.A.J. & Volberda, H.W. (2009) Boards of Directors' Contribution to Strategy: A Literature Review and Research Agenda. *ERIM Report Series Research in Management*, ERS-2009-013-STR. Paper downloaded from: <http://hdl.handle.net/1765/15144>.

Pye, A. and Camm, G. (2003) Non-Executive Directors: Moving Beyond the One-Size-Fits-All View. *Journal of General Management*, Vol. 28, No. 3, pp. 52-70.

Ravasi, D. and Zattoni, A. (2006) Exploring the Political Side of Board Involvement in Strategy: A Study of Mixed-Ownership Institutions. *Journal of Management Studies*, Vol. 43, No. 8, December 2006.

Roberts, J., McNulty, T. and Stiles, P. (2005) Beyond Agency Conceptions of the Work of the Non-Executive Director: Creating Accountability in the Boardroom. *British Journal of Management*, Vol. 16, S5-S26.

Rosenstein, J. (1988) The board and strategy: venture capital and high technology. *Journal of Business Venturing*, Vol. 3, pp. 159-170, Elsevier Science Publishing.

Ruigrok, W., Peck, S.I. and Keller, H. (2006) Board Characteristics and Involvement in Strategic Decision Making: Evidence from Swiss Companies. *Journal of Management Studies*, Vol. 43, No. 5, July 2006.

Santos, J. R. A. (1999) Cronbach's Alpha: A Tool for Assessing the Reliability of Scales. *Journal of Extension*, Vol. 37 No. 2 ISSN 1077-5315.

Siciliano, J.I. (2005) Board involvement in strategy and organisational performance. *Journal of General Management*, Vol. 30, No. 4, Summer 2005.

StatSoft, Inc. (2009). STATISTICA (data analysis software system), version 9.0. www.statsoft.com.

Stiles, P. (2001) The Impact of the Board on Strategy: An Empirical Examination. *Journal of Management Studies*, 38:5, July 2001. Blackwell Publishers Ltd.

Survey Design (2009) *Creative Research Systems* [Internet]. Available from <http://www.surveysystem.com/sdesign.htm> (accessed 07/08/2009).

Van den Berghe, L.A.A. and Baelden, T. (2005) The Monitoring Role of the Board: one approach does not fit all. *Corporate Governance*. Vol. 13, No. 5, September 2005.

Welman, C., Kruger, F. and Mitchell, B. (2005) *Research Methodology*. 3rd ed. Cape Town. Oxford University Press Southern Africa.

Zahra, S.A. and Pearce, J.A. (1990) Determinants of Board Directors' Strategic Involvement. *European Management Journal*, Vol. 8, No. 2, June 1990.

Zikmund, W.G. (2003) *Business Research Methods*. 7th ed. Ohio: South-Western.



APPENDIX 1 – COVERING LETTER AND QUESTIONNAIRE



Universiteit van Pretoria
University of Pretoria



GORDON INSTITUTE
OF BUSINESS SCIENCE

UNIVERSITY OF PRETORIA GORDON INSTITUTE OF BUSINESS SCIENCE BACKGROUND INFORMATION DOCUMENT AND INFORMED CONSENT FORM

My name is Naim Rassool and I am currently studying for Masters of Business Administration (MBA) degree at the Gordon Institute of Business Science (GIBS) with University of Pretoria. I need to complete a research project as a partial requirement for the degree, and I have chosen to study the strategic role of Boards in South African public listed companies. I am specifically investigating the role of Boards in strategic goal setting on companies listed on the JSE Alternative Exchange (AltX) Board.

I would greatly appreciate your participation in this study. It should take you no longer than 10 minutes to complete the questions. I undertake to keep all information received strictly confidential at a company level. However, I will supply a consolidated summary of the results to all respondents in which confidentiality at company level is maintained. The findings of this study could be of tremendous value to your Board and Company.

Note if you are a Board representative on two or more AltX companies, a questionnaire for each of the companies you represent will need to be completed.

Kindly complete the attached questionnaire at your earliest convenience. The completed questionnaire can be e-mailed to naim.rassool@gmail.com or faxed to (012) 686 8269. You may contact me on 082 210 894 or (012) 686 8244.

By completing the survey, you indicate that you voluntarily participated in this research. If you have any concerns, please contact me or my supervisor, Dr Raj Raina on 011 771 4162 or rainar@gibs.co.za

Thank you for taking time to complete this questionnaire.

Yours sincerely
Naim Rassool



SECTION A - GENERAL

1) Place a cross (X) over the name of the AltX listed company you represent as a Director?
(note if you are a director on other AltX companies, please complete a separate questionnaire for each company)

1time Holdings Ltd	ABE Construction Chemicals Ltd	Accentuate Ltd	Acc-Ross Holdings Ltd	African Brick Centre	African Cellular Towers Ltd	African Dawn Capital Ltd
African Eagle Resources Plc	Alert Steel Holdings Ltd	All Joy Foods Ltd	Alliance Mining Corporation Ltd	Ansys Ltd	B&W Instrumentation & Electrical Ltd	Beige Holdings Ltd
BioScience Brands Ltd	Blue Financial Services	Brikor Ltd	BSI Ltd	Buildworks Ltd	Calgro M3 Holdings Ltd	Celcom Group Ltd
Chemspec	Chrometco Ltd	CIC Holdings Ltd	Country Foods Ltd	Credit U Ltd	Dialogue Group Holdings Ltd	Dynamic Technologies Holdings
Ellies Holdings Ltd	Erbacon Holdings Ltd	Esor Ltd	Finbond Property Finance	FoneWorx Holdings Ltd	Gooderson Leisure Corporation	Hardware Warehouse
Huge Group Ltd	Ideco Group Ltd	IFCA Technologies Ltd	Imuniti Holdings Ltd	Infrasors Holdings Ltd	Insimbi Refractory & Alloys Ltd	Interwaste Holdings
IPSA Group Plc	Iquad Group Ltd	ISA Holdings Ltd	Kimberley Consolidated Mining Ltd	Milkworx Ltd	Moneyweb Holdings Ltd	Myriad Medical Holdings Ltd
Oasis Crescent Property Fund	O-Line Holdings Ltd	OneLogix Group Ltd	Pan African Resources Plc	Placécol Group	Poynting Holdings Ltd	PSV Holdings Ltd
Quantum Property Group Ltd	Queensgate Hotels & Leisure Ltd	Racec Group Ltd	Rare Holdings Ltd	RBA Holdings Ltd	Rolfes Technology Holdings Ltd	SA French Ltd
Santova Logistics Ltd	SilverBridge Holdings Ltd	Simeka Business Solutions Group Ltd	StratCorp Ltd	Taste Holdings Ltd	Telemasters Holdings Ltd	TopFix Holdings Ltd

2) What is your position on the Board of the Company? *Please select one:*

Non-Executive Chairman	Non-Executive Other	Executive CEO	Executive CFO	Executive Other
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3) What are the current time spans for the following strategic goals at Business Unit level?
Note that the Business Unit is the highest level in the company i.e. the holding company.

3.1) increase market share

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.2) improve EBITDA



Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.3) increase return on capital investment

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.4) improve customer satisfaction

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.5) improve employee satisfaction

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.6) improve quality

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.7) reduce employee turnover

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.8) reduce costs

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.9) develop new products

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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3.10) other (please specify) _____

Not applicable	6 - 12 months	13 months – under 3 years	3 years – under 5 years	over 5 years
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SECTION B - STRATEGIC GOALS

Strategic goals of a company are statements of what a company hopes to achieve over the period of the strategic plan (e.g. over the next year, five years, ten years.) Strategic goals could be results orientated such as increase market share, improve EBITDA, increase return on capital investment, etc or process orientated such as reduce employee turnover, develop new products, improve customer satisfaction or quality, etc.

Example:

Goals	Target	Process
Turnover	Increase turnover by 20% within the next three years	Strategic planning workshops involving analysis environmental, sales strategy & analysis of business.

To **approve** the strategic goals of the Company indicates that the Board will either accept or reject the strategy goals being presented by the Company.

4. To what extent is the Board involved in approving the strategic goals of the Company?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
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To **review** the strategic goals indicates that the Board will provide input or make amendments to the strategic goals being presented by the Company.

5. To what extent is the Board involved in reviewing the strategic goals of the Company?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------

To **recommend** indicates that the Board will propose strategic goals to the Company.

6. To what extent is the Board involved in recommending the strategic goals of the Company in the following time spans?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------

To **prescribe** indicates that the Board will instruct the Company to implement specific goal targets.

7. To what extent is the Board involved in prescribing strategic goals of the Company?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------



SECTION C - STRATEGIC GOAL TARGETS

Strategic goal targets are actual metrics in place around the strategic goals.

Example:

Goals	Strategic goal Target	Process
Turnover	Increase turnover by 20% within the next three years	Strategic planning workshops involving analysis environmental, sales strategy & analysis of business.

To **approve** the strategic goal targets of the Company *indicates that the Board will either accept or reject the strategy goal targets being presented by the Company.*

8. To what extent is the Board involved in approving the strategic goal targets?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------

To **review** the strategic goal targets *indicates that the Board will provide input or make amendments to the goal targets being presented by the Company.*

9. To what extent is the Board involved in reviewing the strategic goal targets?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------

To **recommend** the strategic goal targets *indicates that the Board will propose goal targets to the Company.*

10. To what extent is the Board involved in recommending strategic goal setting targets to the Company?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------

To **prescribe** the strategic goal targets *indicates that the Board will instruct the Company to implement goal targets.*

11. To what extent is the Board involved in prescribing clear strategic goal setting targets to the Company?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
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SECTION D - STRATEGIC GOAL FORMATION PROCESS

Strategic goal formation process is the manner in which the company goes about setting its strategic goals and targets.

Example:

Goals	Strategic goal Target	Process
Turnover	Increase turnover by 20% within the next three years	Strategic planning workshops involving analysis environmental, sales strategy & analysis of business.

To **approve** the strategic goal formation process of the Company indicates that the Board will either accept or reject the goal formation process being presented by the Company.

12. To what extent is the Board involved in approving the strategic goal formation process?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------

To **review** the strategic goal formation process indicates that the Board will provide input or make amendments to the goal formation process being presented by the Company.

13. To what extent is the Board involved in reviewing the strategic goal formation process?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------

To **recommend** the strategic goal formation process indicates that the Board will propose the goal formation process to the Company.

14. To what extent is the Board involved in recommending the strategic goal formation process to the Company?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
-----------------	----------------	--------------------	-----------------	----------------

To **prescribe** the goal formation process indicates that the Board will instruct the Company to implement the goal formation process.

15. To what extent is the Board involved in prescribing the strategic goal formation process to the Company?

Always involved	Often involved	Sometimes involved	Seldom involved	Never involved
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APPENDIX 2 – SOURCING OF DATA

The process of data collection was carried out as follows:

1. Week One: Sent out an email to the sampling frame being the PA's and Board of Directors informing them of an upcoming survey on boards. The purposes of the email and confidentiality assurances were included.
2. Week Two: Sent the survey questionnaire to the email list comprising of the sampling frame. Once again, the purposes of the email and confidentiality assurances were included.
3. Week Three: Sent out a reminder email one week later for those that did not responded.
4. Week Four: A final reminder to complete survey questionnaire was sent out.
5. As responses were being received, the data was captured on a Microsoft Excel™ spreadsheet that formed the basis of the analysis.

APPENDIX 3 – MITIGATION OF NON-RESPONSE BIAS

Gravetter and Forzano (2003) state that several actions can increase the overall response rate for e-mail survey and thereby reduce the bias and these include:

1. A good covering letter introducing the survey, asking for participation, an explanation of why the topic is important, explanation of the usefulness of the results, stating the importance of each individual response and contact details of the researcher.
2. Monetary or material incentives for completing the survey
3. By giving participants advance warning of the survey, then providing a follow-up reminder after the survey has been received. The pre-warning and follow-up would occur one week on either side of the questionnaire being sent out.

Considering the nature of the respondents, this study used options 1 and 3 to minimise non-response bias.