Strategy Co-alignment: Strategic, Executive Values and Organisational Goal Orientation and their Impact on Performance

A Thesis submitted in partial fulfillment for the Degree of Doctor in Business Administration

by

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February 2005

Abstract

This study concerns the behavioural aspects of strategic decisions and focuses on the role of executive values in strategic decisions and its performance impact. The study investigates the relationship between *strategic-*, *executive values-* and *goal orientation*, contextual variables and their impact on performance.

The research extends Thomas and Ramaswamy's (1996) examination into the leadership-strategy relationship, which confirmed that particular executive characteristics impact performance of the Miles and Snow's (1978, 1994, 2003) strategic typologies. The current study extends their research by:

i. Using primary rather than secondary data,
ii. Expanding the number of Miles and Snow (1978, 1994, 2003) typologies tested from two (prospectors and defenders) to all four (including analyzers and reactors),
iii. Introducing the new constructs of *executive values* and *goals*,
iv. Extending the *performance* construct to include operational as well as financial measures of performance.

The current research tests hypotheses based on theoretically expected outcomes concerning the main and interaction (alignment) effects of the research constructs of *strategic-*, *executive values-* and *goal orientation* and *managerial-*, *firm-* and *industry characteristics* on *organisational performance.*

Data was collected from 163 owner/managers, senior managers and middle managers and the sample frame was broad in size and scope including the international business community without particular profiling. Biases were examined but none were found. Empirical investigation involved the use of Exploratory and Confirmatory Factor Analysis and Multi-way Analysis of Variance.

The results of the current research found that organisational performance is best explained by mangers' strategic choices in an industry context as predicted by the strategic choice (Child, 1972) view. An overall model including industry characteristics produced more significant results than without contextual variables indicating that the interaction effects of industry are more important than previous leadership-strategy studies.

Empirical support for the performance impact of executive values contributes to the understanding of executive values in strategic decisions by confirming the upper echelon theory (Hambrick and Mason, 1984) and theoretical conjecturing concerning its importance in strategy formulation (Andrews, 1987; Finkelstein and Hambrick, 1996; Guth and Taguri, 1965; Hambrick and Brandon, 1988; Learned *et al.*, 1965; Porter, 1980). Moreover, executive values had the greatest performance impact in alignment with entrepreneurial organisational goals substantiating executive values' impact on the direction of the firm (Donaldson and Lorsch, 1983; Steiner, 1969) and affinity with Senge's (1990) notion of *'shared values'*, *'strategic intent'* (Hamel and Prahalad, 1989, 1994) and Reich's (1998) *'sense of mission'*. A contribution to the debate concerning the association of psychological and observable factors of strategic choice (Finkelstein and Hambrick, 1996) is made by executive values' greater

performance impact than tenure indicating that values are more important than demographic variables in the causal chain of fundamental executive characteristics to performance. Furthermore, a two-way interaction between executive values and tenure was also found as predicted by Finkelstein and Hambrick (1996). Finally, tenure's interaction with strategic and goal orientation supports previous studies concerning tenures' linkage with *strategic persistence* (Finkelstein and Hambrick, 1990) and *commitment to the status quo (CSQ)* (Hambrick *et al.*, 1993).

Further research is indicated in the development of executive values categorisation, values-based management ideal-typing of the Miles and Snow types, exploration of other executive orientation factors and further investigation into the relationship between strategic orientation and industry differentiation.

Acknowledgements

Doctoral theses always intimidated me; thick, bound, gold inlaid and imposingly stacked on the library shelves. But what their structured, logical and analytical approach conceals are the emotional ups and downs, intuitive and iterative nature of the process. I thank my supervisors Professors Malcolm Higgs and Phillip Samouel for their guidance, rigour and support in helping me to develop the approach and get me through the process. Malcolm's direction, advice and encouragement, particularly his ability to say just the right thing when all I saw were dark clouds, was essential in helping me to achieve what I thought I was incapable of. Phil's rigour, engagement and master class research sessions were as inspirational as they were instrumental in my advancement.

Sarah's support was the foundation that everything else was built upon.

I also thank Pat Dade for introducing me to value-based consumer segmentation that partly inspired this research and for Pat's and Les Higgins' valuable contribution to the research.

I also would like to acknowledge Programme support including Professor Pat Joynt and fellow doctoral students for their useful input and Professor Arthur Money for making this a better document. To the Doctoral office, thanks go to Veronica Clarke and Louise Child for facilitating the process and Dr. David Price for his support. Thanks also goes to colleagues Martin Aylward who held the fort at work when I was in 'Monastery Lichtenstein' and Roger Martin-Fagg for keeping my feet on the ground as well as Paul Fenn for continuing to be a friend even after reading the draft. Finally, I thank Gary for his brotherly advice and support, Benyamin and Moshe for their interest and my folks for instilling in me the value of learning and urging me 'to get the damn thing finished'.

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Chapter 1 Introduction

In this chapter the role and importance of executive values are considered, setting the context for the research focus, issues and objectives of the current study. A summary of the research is provided including the importance of the research as well as its limitations.

1.1 The role and importance of executive values

What do you really care about? Whatever is important to you—and to all of us as individuals—is a reflection of your values. Values theorists such as Allport (1951), Maslow (1970), Graves (1974) and Rokeach (1979) believe that values are central to individual human motivation, beliefs and desires, and that values underpin the actions of groups, in particular organisations and cultures. Academics and practioners seeking to understand patterns in individuals' and organisations' decision-making and behaviours have extensively theorised about the role of personal values role in organisational effectiveness, strategy formulation, implementation and change management. Values' centrality to motivation and behaviour explains its cross disciplinary attraction in the fields of Marketing, HRM/OB and Strategy.

The purpose that lies at the heart of an inquiry into the personal values of executive is the attempt to decipher the true goals of those who lead the company. Within this discourse the personal values of executives are referred to as executive values. This inquiry has now become public with revelations of business leaders' (mis)conduct and increasing shareholder activism. It is also a concern amongst employees who recognise that an organisation's culture is underpinned by the dynamic between the values of its leaders and employees, summed up by Dee Hock (in Waldrop, 1996, p.84), *"All organizations are merely conceptual embodiments of a very old, very basic idea - the idea of community. They can be no more or less than the sum of the beliefs of the people drawn to them; of their character, judgments, acts, and efforts."*

Based on opinion poll findings in the US and UK that consistently rate business executives just above used car salesmen as people the general population feel they can trust, it appears

the public has made its mind up about executives' values. For researchers, however, they are still not adequately understood, and there is little empirical evidence for their relationship with strategy and performance. This is not surprising considering values research is still a relatively young field. It was only in the 1980's when *In Search of Excellence* (Peters and Waterman, 1982) highlighted it as a business issue and Hambrick and Mason's (1984) upper echelon theory opened up a research stream in the area of managerial perception and strategic action.

There is concurrence amongst prominent theorists that individual values as a scientific variable in management research is important *"primarily because they underline choice behavior"* (Becker and Connor 1986, p. 12). A major motivational thrust of the research is to investigate whether a link between executives' values, strategic decisions and choice exists and its impact on performance. A second motivation and more overarching goal of the research is to develop a people-focused approach to strategy using values, beliefs and underlying needs as a way to gain insight into managers and their motivations, to answer the 'why?' question as regards executives' strategic choices which can only be diagnosed at the level of values. In pursuing this research it is important to be clear from the outset that the focus is on personal values rather than corporate values. The latter tend to be in the category which Schein (1992) refers to as espoused values. He indicates that the efficiency of these as indicators of actual behaviour is somewhat questionable.

1.1.1 Management Problem

A management issue concerning executive values and strategy was identified nearly 40 years ago at the inception of strategy or 'business policy' when it was identified that concern must be given to the values and preferences of the chief executive and other key managers who contribute to or assent to strategy if it is to be effective (Learned *et al.*, 1965). Andrews (1987) maintains there are three levels of values reconciliation to consider:

i. The divergence between the chief executive's values, preference and the strategic choice that seems most economically defensible,

ii. The conflict among several sets of managerial personal values that must be reconciled with each other and economic strategy,

iii. The difference in motivation of management and the work force that must be transcended by participation in and acceptance of the organisation components of the strategy.

The management issue of executive values reconciliation is part and parcel of a 'school' of strategy known as the strategy-as-values-match perspective (Taylor, 1976). This school argues that the strategic analysts' main concerns should be:

i. Identifying the purpose, goals and values of an organisation including the values of the top team,

ii. Actively focussing on any changes needed in the organisation's value thrust in order to achieve a better match with the aspirations of employees and expectations of stakeholders and society at large,

iii. Creatively shaping the future, not merely trying to predicting it.

A related executive values-strategy management issue which goes to the heart of strategic leadership is the belief that there is no leader for all seasons and choosing the right leader with the right values for the right strategic situation of a business is crucial to corporate success (Rothschild, 1993). A growth business led by a low-risk 'micro-manager' or a high-risk taker trying to manage a conservative, incremental business or one that needs to be pruned can be disastrous (Rothschild, 1996). In short, finding a leader (and management team) whose values are in sync and compatible with the strategy is imperative for business success. One notable example is the return of Steven Jobs to Apple in the 1990's. With his entrepreneurial values he took Apple from near-death to an all-time high on the stock market within a few years by pursuing innovative, entrepreneurial strategies. Richard Parsons, current Chief Executive Officer (CEO) of Time Warner, offers another example. Contrary to other AOL-Time Warner executives with 'big egos', he has a 'normalacy' to steady the company and managers' jangled

nerves, which, according to Rupert Murdoch, makes him the right man at the right time for Time Warner (Carr, 2004). Values alignment with the strategic situation the company faces is a board-level issue that is perceived to impact strategic decisions and ultimately performance. Values are seen as strategic decision-drivers and organisations eager to understand the nature of decisions (good or bad) and their impact on performance are therefore interested in executive values impact on strategic choice and performance. This is of particular interest to boards and stakeholders who are affected by the outcome of those decisions.

1.2 Research Focus

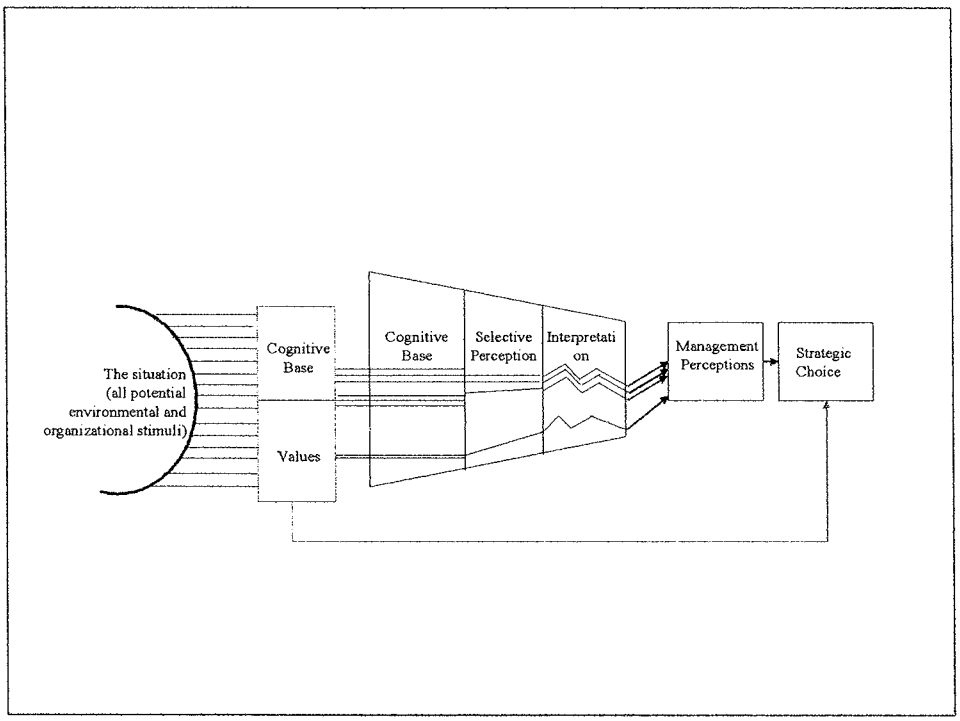
The focus of this research is on executive values and their role in strategic choice. Although the research has elements of psychology, decision-making, strategy and even leadership, this research takes the strategy perspective looking at the role of executives' values in strategic decisions. Therefore, executive values are understood in the context of managerial research, not psychological research.

Central to the nature of how executives and top teams make strategic choices is the insight of the behavioural theory of the firm (Cyert and March, 1963; March and Simon, 1958) which contends that under conditions of uncertainty, time pressure and partial information, managers' decisions are 'boundedly rational'. Moreover, managers selectively perceive or filter the strategic situation based on their perception or 'construed reality' (Hambrick and Mason, 1984; Finkelstein and Hambrick, 1996). Hambrick and Mason's (1984) strategic choice model (see Figure 1.1), the upper echelon theory, is the cornerstone of the strategic leadership research domain which proposes that strategic choice and organisational outcomes are the reflection of the values and cognitive basis of powerful actors in the organisation.

The research on behavioural aspects of strategic decisions has lead theorists (e.g. Hambrick and Mason, 1984; Hitt and Tyler, 1991) to conclude that an accurate understanding of strategic decisions requires consideration of the effects of executives' personal characteristics. The use of demographic variables as surrogate measures of executive characteristics has been severely criticised (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991). In

characteristics has been severely criticised (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991). In contrast, there have been relatively few studies into the relationships between psychological factors, strategy and performance with some notable exceptions such as Prahalad and Bettis' (1986) seminal theoretical paper that argued 'dominant logic' explains the linkage between diversification strategies and firm performance and Miller *et al.*'s, (1982) field study supporting the relationships between managers' personality (locus of control) and strategy making behaviour.

Figure 1.1: Strategic Choice under Conditions of Bounded Rationality



Source: Hambrick & Mason (1981) p.145

Still fewer studies explore the relationship between managerial values and strategic choice, despite the conceptual importance in the literature given to values, strategic formulation and implementation:

i. Decisions determining the most sensible economic strategy for a company cannot be divorced from the personal values of those who make the choice (Andrews, 1987; Learned *et al.*, 1965),

ii. Values of top managers are reflected in the aims of an enterprise, and have the profoundest impact on the direction in which a firm moves and the way it operates (Steiner, 1969),

iii. Values and goals of owner/managers of small businesses are indistinguishable from the goals of their business (Bamberger, 1983; O'Farrell and Hitchins, 1988),

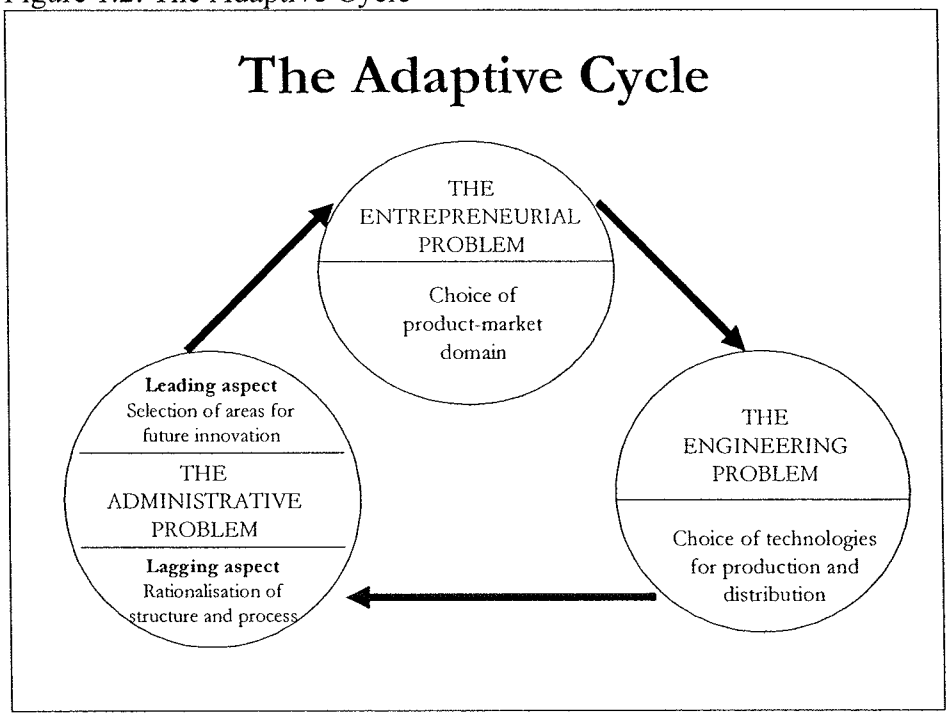
iv. Owner/Managers' personal values influence the strategies they adopt in operating their businesses and, ultimately, the performance of their businesses (Kotey and Meredith, 1997; Thompson and Strickland, 1996).

The significance of managers' personal values affecting decision-making in the organisation is well established, yet not adequately researched empirically (Andrews 1987; Finkelstein and Hambrick, 1996; Sturdivant *et al.*, 1985; Zahra and Pearce, 1990). This research gap provides the context for the research focus.

In a related development to the upper echelon theory (Hambrick and Mason, 1984), Miles and Snow (1978, 1994, 2003) refined the notion of strategic choice by identifying three adaptive decision areas or 'problems' where top managers make critical decisions concerning an organisation's strategy, structure and process, as seen in Figure 1.2.

Entrepreneurial decisions relate to strategic choices that determine the product/market domain for the organisation, the engineering problem relates to choices concerning the distribution of products and services, and the administrative problem relates to choices determining the organisational structure and processes of formulating and implementing firm policy to enable the organisation to evolve. Consistent with Mintzberg's (1976, 1999) concept of strategy as a stream of decisions in a pattern of actions, Miles and Snow (1978, 1994, 2003) observed that there are patterns of strategic decisions and behaviour made by organisations that translate into typologies of strategic orientation: Reactors, Defenders, Analysers and Prospectors.

Figure 1.2: The Adaptive Cycle



Source: Miles, R.E. & Snow, C.C. (2003), p. 24

Each type has its own strategy for responding to the environment and particular configuration of technology, structure and processes, which is consistent with the organisation's adaptive strategy (Miles and Snow, 2003). A focus of this research is to investigate the relationship between executives' personal orientation and patterns of the strategic choices they make.

1.3 Research issues and objectives

The key research question concerning the current research is whether executive values impact organisational performance. The behavioural factor of values is assumed in strategic decisions but the degree to which it plays a role and its impact on performance is inconclusive. Many questions are left unanswered such as are executives' values reflected in the choices they make as Finkelstein and Hambrick's (1996) proposed? Do values have a direct effect on performance? If so, which values have the greatest impact on performance? To what extent do managers make choices based on satisfying their personal needs or those of the organisation? Do executive values have a greater impact on performance than other managerial attributes? If so, do they have a greater impact on performance than the 'rational'

factors of strategy, firm and industry characteristics? What strategic postures have the greatest performance impact? Are managers more rational than the literature suggests and executives' perception is not as selective as the theory assumes?

The objectives of the thesis are:

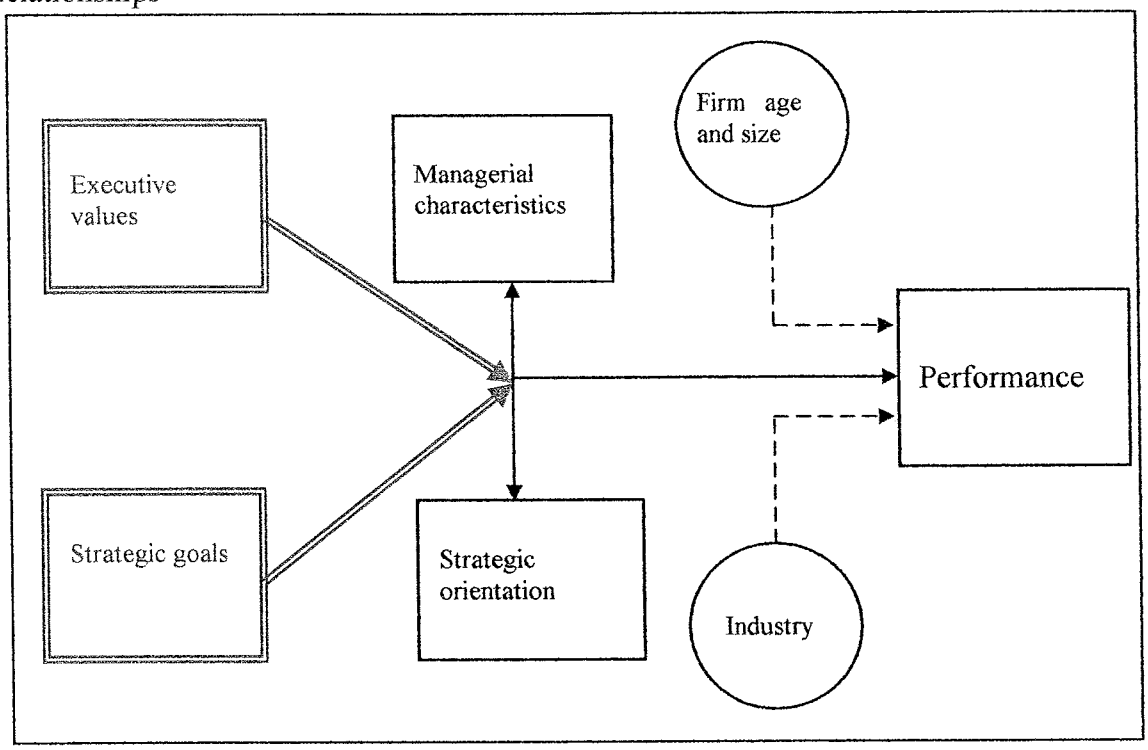
i. To review the literature and examine the executive values-strategy relationship in a theoretical context.
ii. To introduce a Positivistic approach to researching executive values.
iii. To put forth a research model and discuss issues related to the operationalisation of the research model.
iv. To postulate hypotheses based on research into executive characteristics and strategic choice.

1.4 Summary of the research

The upper echelons theory developed by Hambrick and Mason (1984), which proposes that executives' strategic choices are in part a reflection of their values, is the theoretical model and underpinning of the research. This research will extend Thomas and Ramaswamy's (1997) study of manager-strategy co-alignment (see Figure 1.3) by:

i. Using primary rather than secondary data.
ii. Introducing the new constructs of *executive values* and *goals.*
iii. Expanding the number of Miles and Snow (1978, 1994, 2003) typologies tested from two (prospectors and defenders) to all four (including analyzers and reactors).
iv. Extending the *performance* construct to include operational as well as financial measures of performance.

Figure 1.3: Extension to Thomas and Ramaswamy's (1996) Model of Contingency Relationships



Source: Adapted from Thomas and Ramaswamy (1996), p.253

Key: ←→ Alignment — Original model ---- Contextual factors
→ Correlation ═ Extension to the model

The current research tests an overall research model and hypotheses based on theoretically expected outcomes concerning the main and interaction (alignment) effects of the research constructs of *strategic-*, *executive values-* and *goal orientation* on performance as well as an investigation of the contextual variables including *managerial, firm and industry characteristics.*

1.4.1 Methodology

The survey focused on owner/managers, senior managers and middle managers and the sample frame was broad in size and scope including the international business community without particular profiling. The sample frame included individual corporate clients, Alumni and students of Henley Management College (HMC) and members of the UK Institute of Ethics and the UK Strategic Planning Society. The questionnaire was designed to be

distributed on-line hosted on a web site (HMC) and face-to-face using a paper-based version. Data collection took place between May and mid-July 2003 and yielded 163 usable responses, 106 paper-based and 57 on-line. The sample used in this study falls within the critical range of 100 to 200 observations necessary for stable diagnostic measures of multivariate analysis (Hair *et al.*, 1998; Samouel, 1996).

The operationalisation of the model and hypotheses were developed through a questionnaire that had a total of 70 questions including 7 constructs: *Performance, Strategic orientation, Executive values, Goals, Managerial, Firm and Industry characteristics*. To ensure reliability of the survey questionnaire a maximum of existing scales were used (Churchill, 1979). *Strategic Orientation, Managerial, Firm and Industry Characteristics* are a combination of ratios and categoric variables and a 5-point Likert scale was used to measure *Performance, Executive values* and *Goals*.

1.4.2 Empirical analysis

Empirical investigation involved the use of standard statistical procedures that included exploratory and confirmatory factor analysis and analysis of variance. The statistical software employed was SPSS (version 11.1) and AMOS version (4.0).

1.4.3 Importance of the Research

The contribution made by this study is to confirm the strategic choice (Child, 1972) view and Miles and Snow's (2003) neo-contingency theory which contends that the performance of a company is determined by managers' strategic choices in an industry context rather than contextual constraints of industry or firm characteristics. Moreover, this current research makes a contribution to the understanding of executive values in strategic decisions by finding that executive values have a direct impact on performance thus confirming the upper echelon theory (Hambrick and Mason, 1984) and executive values performance impact is greatest when they are in alignment with entrepreneurial organisational goals.

This study also contributes to the strategic leadership debate concerning the association between psychological and observable experience factors of strategic choice by finding that executive values are more important in the causal chain of fundamental executive characteristics to performance than tenure and there is also a two way interaction between them. Finally, a contribution is made to the debate concerning the use of demographic variables as surrogates for executive characteristics, which has been severely criticised (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991). The findings of the current study suggest that tenure is an indication of an organisation phenomenon of managerial inculcation with the cultural-strategic orientation of the organisation rather than a surrogate for executive characteristics (e.g. risk aversion, conservatism).

1.4.4 Limitations

Although rigour was applied throughout the research, limitations became evident in the course of this study, which must be borne in mind when inferences are drawn from its findings:

i. **Sampling procedure**. The need to obtain access to respondents and the required information at a reasonable cost and in a sufficient number to allow statistical analysis using multivariate techniques prevented the use of a random sample. As a result the sample was drawn using a non-probability sampling design. The implication of this is that generalising the findings should be treated with caution (Hair *et al.*, 2003). However, the sample size (163) having exceeded the minimum efficient sample size (144) and satisfied the 100 to 200 cases guideline required for stable diagnostic measures of multivariate analysis (Hair *et al.*, 1998; Samouel, 1996) and 5-10 cases per item guideline for factor analysis (Pallant, 2001) indicates that inferences from the population (in-work mangers internationally) can be made reliably and the use of multivariate techniques can be made with accuracy and precision.

ii. **Low on-line response rate.** The inclusion of the survey's URL link in two organisations' newsletters resulted in a low on-line response rate, although the paper-

based response rate was 94%. An independent-samples t-test and chi-square test found no significant difference between paper-based and on-line responses.

iii. **A quantitative approach.** A cross-sectional quantitative approach does not allow an in-depth exploration of how executive values influence strategic choice or an examination of the process.

iv. **Executive values orientation.** Convergent validity between two executive values instruments, the List of Values and Values Modes (VMs), could not be established. The VMs instrument was used to categorise respondents' values orientation due to its 30+ years of use, however, reliability tests for the VMs instrument are unreported, which increases the risk of measurement error (Hair *et al.*, 1998).

v. **Unit of analysis.** Choosing one individual from an organisation does not guarantee they are representative of the organisation. However, choosing a top management team as a unit of analysis would entail doing an entirely different study than the current research.

1.4.5 Summary

This chapter presented the framework for the research. An overview of the research has been given and the importance of the research has been emphasised along with the limitations of the study. The next chapter reviews the literature concerning the nature and factors influencing strategic decisions in particular executive values and the other key constructs included in the research model.

Chapter 2 Literature Review

This chapter provides an overview of the literature concerning executive values as a factor in strategic decisions. The debate on the nature of strategic decisions is outlined before the relationship between executive values and performance is discussed. An examination of executive values as a factor affecting strategic decisions follows which includes the introduction of the theoretical model underpinning the research, Hambrick and Mason's (1984) upper echelon theory.

This research is located in the field of strategic decisions. The introduction of the impact of personal values opens up the possibility of moving into the broader field of organisational behaviour, including areas such as corporate culture, corporate values and leadership behaviours. However, the research needs to be bounded and, whilst the organisational behaviour literature adds value to the understanding of organisational performance, in the following review such literature will be acknowledged rather than explored in depth.

2.1 The nature of strategic decisions in management

Management theory is varied in its characterisation of the nature of strategic decisions and the role of management in making them. Contemporary understanding of managerial action and strategic decision-making is informed by neo-classical and behavioural theory. The behaviour theorists such as Cyert and March (1963) and March and Simon (1958) challenged the neo-classical theory that stressed the sequential, rational and analytical aspect of decision-making. The neo-classical theory assumes economic factors maximising their utility based on full, complete and perfect information (Hitt and Tyler, 1991). Inputs will be used as effectively as

possible and firms have perfect knowledge about future costs and prices for a given product on which to make techno-economic decisions based on rational analysis in the quest for optimal profit maximisation (Martin-Fagg, 2003; Minkes and Foxall, 1980). The behaviourists stressed the subjective and imprecise nature of decision-making. Top management teams are rarely influenced solely by rational considerations (March and Simon, 1958; Cyert and March, 1963), and even if managers are 'intendedly' rational, they are only 'limitedly' so due to limitations of time, information and computational ability, or 'bounded rationality' (Simon, 1955). Attempting to limit uncertainty, managers search for familiar alternatives and 'satisfice' rather than optimise.

The role of management in strategic decision-making has been shaped by the economic determinism-strategic choice perspectives. Proponents of the industrial organisational (IO) school of economics (e.g. Porter, 1980) argued that success of strategic decisions is largely determined by industry structure, which is a major determinant of profitability. Some writers in economics stressed the dependent nature of the organisation to the environment that must bow to the constraints imposed on it by the economic environment. In this paradigm managers' responsibility is to understand the competitive environment and respond to it and the role of managers' strategic decisions is to facilitate the organisation's adaptation to opportunities and threats (Papadakis *et al.*, 1998). Population ecologists (e.g. Hannan and Freeman, 1997) proposed an even more deterministic process of natural selection in which the environment determines who will survive and top managers' role is that of 'passive agents' of corporate development (Papadakis *et al.*, 1998).

Environmental determinism contrasts sharply with the early writers in strategy (e.g. Child, 1972; Ansoff, 1965) who wrote about the importance of senior management choosing

between ill-defined 'choice sets'. Rather than organisational behaviour being dictated by the environment, the strategic choice approach called for by Child (1972) focused on the people making strategic choices and argued that the major managerial decisions regarding goals, domains, technologies and structure of the firm defined the organisation's relationship with the broader environment. From this perspective strategic decisions depend on human perception and evaluation that reflects the needs, values, experiences and cognition of top executives (Hitt and Tyler, 1991). Weick (1969, 1977) went further by introducing the concept of 'enactment' in which the economic environment is a managerial invention they create through a series of choices regarding markets, products and technologies (Miles and Snow, 2003).

Although the neo-classical behaviourists and choice-determinism debates have shaped our current understanding of the role of the manager or whether they matter at all and the nature of strategic decisions, Eisenhardt and Zbaracki (1992) have called for a departure from a traditional view of decision-making, such as rationality and 'bounded rationality' at opposite ends of the spectrum. They suggest decision-makers are rational in some ways and not in others. Moreover, despite criticisms that economists have lost the importance of human beings (e.g. Grinyer *et al.*, 1988) and the consequence of the economics literature is the 'euthanasia of the entrepreneur' (Minkes and Foxall, 1980), influential economists have recognised the importance of human capital (e.g. Penrose, 1959) and that managerial preferences can provide a source of competitive advantage (e.g. Porter, 1980). Indeed, what is striking in a comparison between the economists' analysis of intra firm behaviour[1] and the behaviourists' macro-

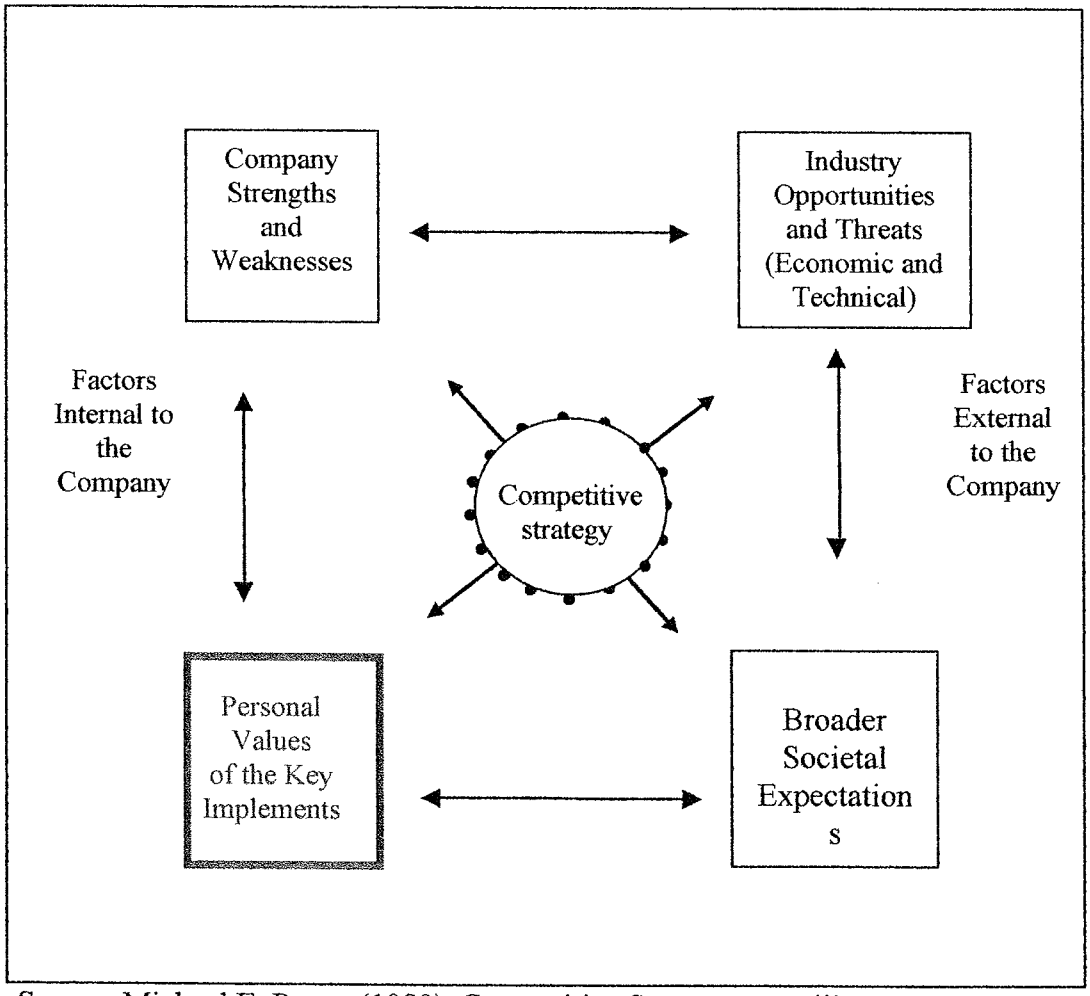
[1] The interactions of persons within the firm and their influence on firm behaviour, 'micro-microeconomics' (Leibenstein, 1978)

behaviourists' macro-organisational research (Hambrick and Mason, 1984) is the similarity in their key determinants of strategic decisions.

2.2 Determinants of strategy and executive values

From an early stage, economists; behaviourists and strategists identified the personal values of senior management as a key determinant of an organisation's competitive strategy, as seen in Figure 2.1.

Figure 2.1 Key determinants of strategy



Source: Michael E. Porter (1980), Competitive Strategy, p. xviii

Andrews, (1987) Learned *et al.* (1965) and Porter (1980) identified personal values and the aspirations of senior management as one of the four components of strategy, including the identification of opportunity and risk, determining the company's material, technical, financial and managerial resources and the acknowledgement of non-economic responsibility to society. Andrews (1987) almost grudgingly admits, *"We must acknowledge that there is no way to divorce the decision determining the most sensible economic strategy for a company from the personal values of those who make the choice"* (p. 53). Concern must be given to the preferences of the chief executive and values of other key managers who contribute or assent to strategy if it is to be effective. Andrews (1987) maintains there are three levels of reconciliation to consider:

i. The divergence between the chief executive's preference and the strategic choice that seems most economically defensible,
ii. The conflict among several sets of managerial personal values that must be reconciled with each other and economic strategy,
iii. The difference in motivation of management and the work force that must be transcended by participation in and acceptance of the organisation components of the strategy.

Schendel and Hofer (1979) echo the considerable weight executive values should be given in the strategy process by arguing that the environment, resources and values are considered roughly equal in importance and should be considered simultaneously. Hambrick and Mason (1984) theorise that executives' values directly affect strategic choice and indirectly affect executives' perception of the external environment and strategic situation.

The significance of manager's personal values affecting decision-making in the organisation is well established, yet not adequately researched empirically (Finkelstein and Hambrick, 1996; Learned *et al.*, 1965; Sturdivant *et al.*, 1985; Zahra and Pearce, 1990). Chamberlain (1973) believed that corporations are captained by individuals who deeply believe in values of which their organisations are the chief carriers (Sturdivant *et al.*, 1985). Values of top managers are reflected in the aims of an enterprise, and whether written or not, have the 'profoundest' impact on the direction in which a firm moves and the way it operates (Steiner, 1969). Donaldson and Lorsch (1983) observed that executives' values about organisational self-sufficiency seem to influence their organisation's actions. In particular, Chief Executive Officers (CEOs) who believe long-term debt indicates inadequate self-sufficiency tend to avoid strategies that require borrowing. For owner/managers of small businesses, their values and goals are indistinguishable from the goals of their business (Bamberger, 1983; O'Farrell and Hitchins, 1988). Owner/Managers' personal values influence the strategies they adopt in operating their businesses and, ultimately, the performance of their businesses (Kotey and Meredith, 1997; Thompson and Strickland, 1996). Sturdivant *et al.*, (1985) sums up the literature on the impact of values on strategy by claiming, *"The literature reflects a consensus of opinion that executives' personal values are intertwined with the strategic decisions they make"* (p. 19). However, he adds a note of caution by pointing out that arguments about the importance of values in strategic management have been developed primarily from propositions and personal observations rather than from empirical research. Table 2.1 summarises the key values-based literature in management that is conceptual or empirical and addresses executive values, strategy and/or organisational performance. This table highlights the lack of empirical research compared with conceptual development and research into executive values, strategy and performance. The current research contributes to the effort to

develop a stronger empirical foundation to the field and the executive values, strategy and performance relationship.

Table 2.1 Examples of Relevant Literature of Executive Values, Strategy and Firm Performance

Year	Authors	Conceptual or empirical	Comments	Executive values	Strategy	Firm performance
1965	Guth and Taguri	C	Case studies illustrate the importance of personal values on strategic choice	X	X	
1965	Learned *et al.*	C	Importance of personal values of executives to strategy formulation	X	X	
1973	Hage and Dewar	E	Values of inner circle are most important in predicting innovation	X	X	
1976	Taylor	C	Conflict of values as 1 of 5 dimensions in corporate strategic planning	X	X	
1980, 1987	Andrews	C	Personal values of executives as a key determinant of strategy	X	X	
1984	Hambrick and Mason	C	Hypothesised strategic choice, outcomes & performance are based on upper echelons' perceptions filtered by their beliefs and values	X	X	X
1985	Sturdivant *et al.*	E	Limited support for the relationship between the value of conservatism and corporate social performance (responsiveness)	X		X
1988	Hambrick and Brandon	C	Hypothesised links between executive values and action	X	X	
1991, 1996	Thomas *et al.*, Thomas and Ramaswamy	E	Reviewed literature and analysed co-alignment of managerial characteristics, firm strategy and performance		X	X
1996	Finkelstein and Hambrick	C	Updated Hambrick and Mason (1984) conceptual model of strategic choice under bounded rationality, and offered 4 propositions re: executive values	X	X	
1997	Kotey and Meredith	E	Found an association between cluster profiles of owner/managers' personal values, strategic orientation, and firm performance at opposite ends of a continuum.	X	X	X
2003	Mintzberg *et al.*	C	Stated managerial values as an integral part of the strategic analysis have been forgotten about and devoted a textbook chapter to it.	X	X	

2.2.1 Executive values and performance

There have been relatively few empirical studies on the effects of executive values and firm performance. As Hambrick and Brandon (1988) observed, *"Almost no systematic research has been done on the links between executive values and performance"* (p. 24). Regrettably, the situation today remains essentially the same with two exceptions, Kotey and Meredith (1997) and Sturdivant *et al.*, (1985) that still leaves the executive values-performance relationship inconclusive. In a study of 224 owner/managers of small (100 employees or less) furniture manufacturers in New South Wales, Australia, Kotey and Meredith (1997) found differences amongst clusters with respect to personal values, strategies and performance. Performance was assessed on respondents' desire (importance) to meet macroeconomic objectives that generate research and government interest in small firms multiplied by levels of satisfaction to arrive at a performance measure (Cronbach $\alpha = .86$). In a 4-cluster solution, firms were positioned on a continuum from above to below average performance and compared for differences in strategy and executive values. On opposite ends of the continuum, an above-average performer was associated with 'proactive' strategies and 'entrepreneurial' personal values whilst a below average performer was associated with 'reactive' strategies and conservative personal values. Clusters in the middle were above average and below average performers but do not support evidence for a direct relationship between executive value types and performance.

In the final analysis of a longitudinal study on the relationship between conservatism as a personal value among senior managers and social responsiveness, Sturdivant *et al.* (1985) tested the association between the value of conservatism and social responsiveness by comparing the level of conservatism of 43 top officers of social activist organisations with 23

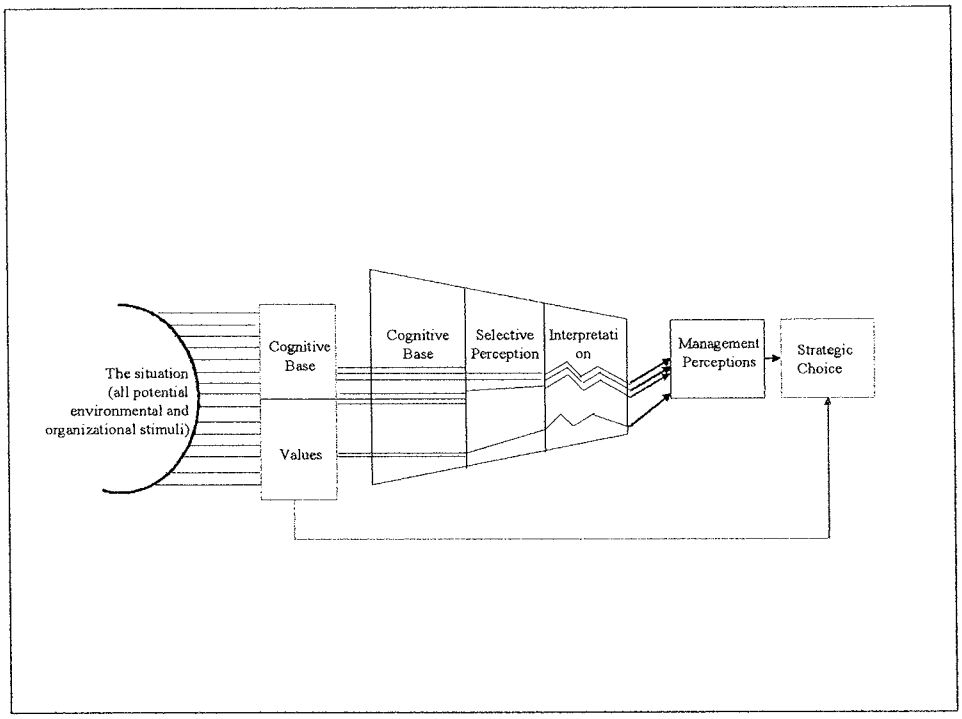
CEOs and executives of companies rated on their corporate social responsiveness as 'best' (7), 'honourable mention' (11) and 'worst' (5). The results found that there was a significant difference between the low conservatism scores of the social activists ($p < .01$) and the high conservatism scores of the executives from the least socially responsive organisations 'worst', however, there was no difference between the conservatism scores of executives from the 'best' and 'honourable mention' social responsive organisations. At the extremes, the social activists and the worst socially responsive, there is an indication of an association between conservatism and social performance (responsiveness) but the limited sample size does not allow drawing any generalisable conclusion.

From these two studies on the relationship between owner/managers' and executives' values and performance, there is a tentative indication of a relationship between managerial values, organisational types and performance, but it is limited and inconclusive. Moreover, different definitions and operationalisation of values and performance makes comparison impossible. The current research reported in this thesis is part of a continuing effort to determine the direct and interaction effects of executive values on performance.

2.2.2 Factors affecting strategic decisions

Although the significance of executive values in strategic decision-making has been argued for, there was no theoretical underpinning to examining the relationship between executives' strategic choices and their values until Hambrick and Mason's (1984) "upper echelon theory" that made the crucial link between managers' values, cognitive base, selective perception and strategic choice (see Figure 2.2).

Figure 2.2 Strategic Choice under Conditions of Bounded Rationality



Source: Hambrick and Mason (1984) p. 195

The roots of the upper echelon perspective lie in the behavioural theory of the firm (Cyert and March, 1963 and March and Simon, 1958) and the choice perspective (Child, 1972) that upper echelons' cognitive base[2] and values[3] affect managerial perception and strategic choices. Hambrick and Mason (1984) called for "a new emphasis in macro-organisational research"

with an emphasis on the dominant coalition of the organisation, in particular its top managers: *"Organisational outcomes - both strategy and effectiveness - are viewed as the reflection of the values and cognitive basis of powerful actors in the organisation"* (p. 193).

[2] "knowledge or assumptions about future events, knowledge of alternatives, and knowledge of consequences attached to alternatives 'givens' to an administrative situation" (Hambrick and Mason, 1984, p.195)
[3] "principles for ordering consequences or alternatives according to preferences" (Hambrick and Mason, 1984, p. 195)

In a sequential perceptual process, values and cognitive base are filters between the external environment and strategic choice. The process of strategic choice is determined by (Hambrick and Mason, 1984, p. 195):

i. The manager's field of vision,

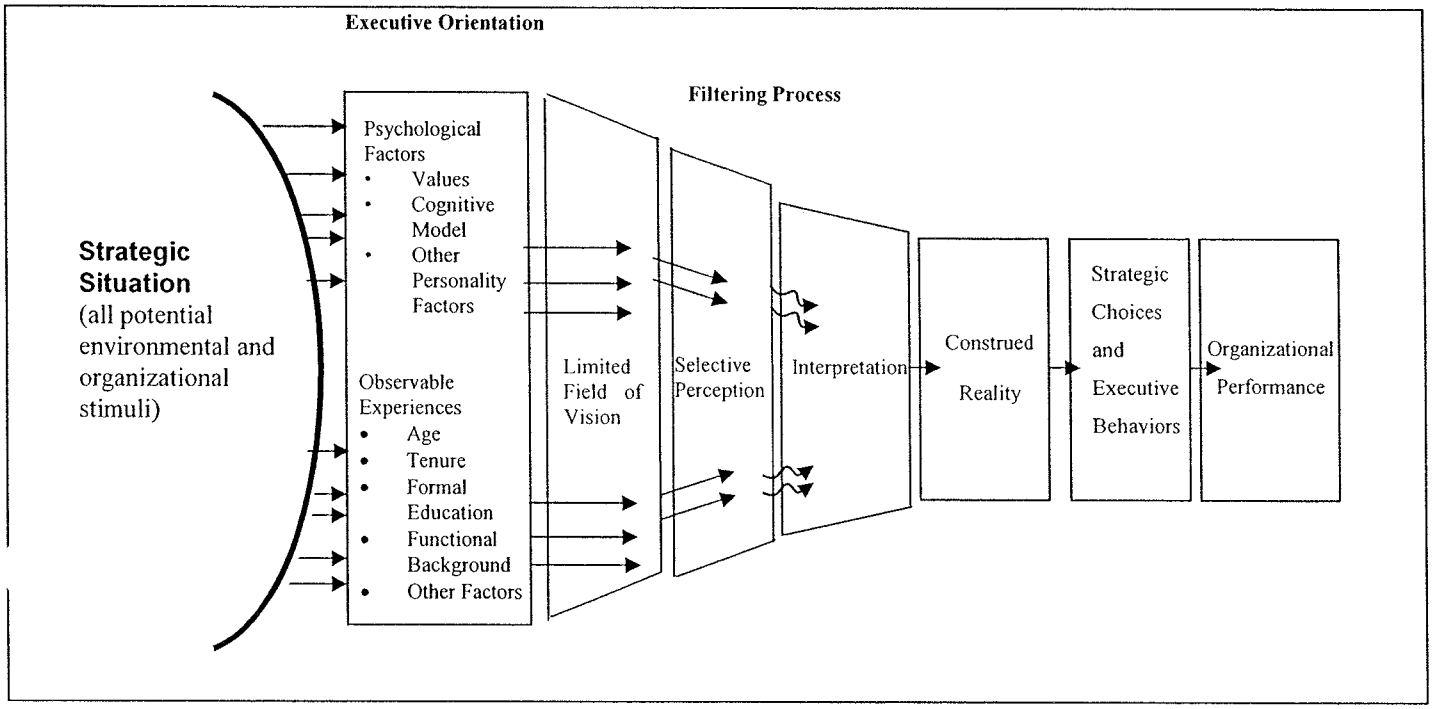
ii. The selective perception of the phenomena in the field of vision, and

iii. The interpretation through a filter "woven by one's cognitive base and values."

According to Hambrick and Mason (1984, p. 195), *"First, a manager or even entire team of managers cannot scan every aspect of the organisation and its environment. The manager's field of vision – those areas to which attention is directed – is restricted, posing a sharp limitation on eventual perceptions. Second, the manager's perception is further limited because one selectively perceives only some of the phenomena included in the field of vision. Finally, the bits of information, selected for perception are interpreted through a filter woven by one's cognitive base and values.*
The manager's eventual perception of the situation combines with his or her values to form the basis of strategic choice".

Their model has subsequently been refined by Finkelstein and Hambrick (1996), see Figure 2.3.

Figure 2.3 Strategic Choice under Bounded Rationality: The Executive's Construed Reality



Source: Finkelstein and Hambrick (1996), p. 42

Their model introduces the notion of 'construed reality' that stands between the 'objective strategic situation' and actual choices, which is the human factor in strategic decisions; the executive's rendition of the situation based on, "*...biases, blinders, egos, aptitudes, experiences, fatigue and other human factors that greatly affect what happens to companies*" (Finkelstein and Hambrick, 1996, p. 41).

2.2.3 Behavioural factors of strategic decisions

Research into the effects of managers' perceptual filters on strategic decisions supports the view that executives' personal characteristics affect strategic formulation and implementation. Miles and Snow's (1978, 1994, 2003) research into the problem-solving orientation of managers in six electronics and publishing companies found evidence for the link between

managerial perceptions and strategy, structure, and process. They found that firms led by managers who focused on effectiveness competed on the basis of innovation, whilst firms led by managers who focus on efficiency competed on the basis of cost control and efficiency. Miller *et al.*, (1982) investigated the relationship between the personality of 24 CEOs and their strategy making behaviour. Using Rotter's (1966) internal-external locus of control scale[4] (Cronbach α = .80), they found strong relationships between locus of control and strategy making behaviour; specifically, the more the CEO believes their destiny lies in their own hands, the more innovative and entrepreneurial the organisation[5]. In a study of 58 Strategic Business Units (SBUs) within 8 Fortune 500 diversified firms, Gupta and Govindarajan (1984) found that the greater the marketing/sales experience the greater the willingness to take risks and tolerance for ambiguity. This contributed to effectiveness in 'build' strategies but hampered in the case of 'harvest' strategies. Bateman and Zeithaml (1989) tested the effects of the influence of past events on future decisions (decision feedback), the way decisions are presented (decision-frame), and perceived organisational slack influenced investment. Using two laboratory experiments of 193 undergraduates and 48 executives, they found evidence that psychological factors do influence strategic decision-making, *"The same objective future prospects, viewed from different orientations or 'mind-sets', will lead to different, biased decisions,"* (p. 70). According to Higgs (2002), real strategic change happens at the level of mind sets or mental models which drive structures, patterns and ultimately events (see Figure 2.4).

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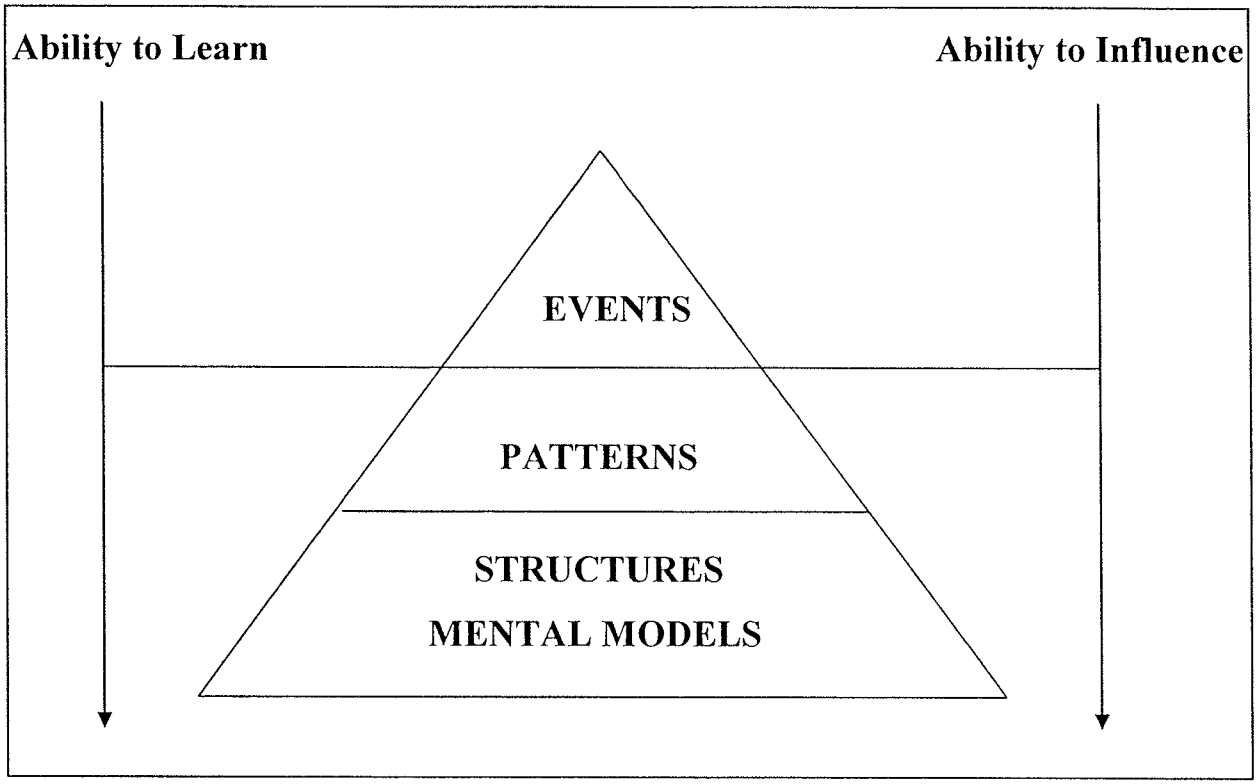
[4] An 'internal person' is convinced that the outcomes of their behaviour are the results of their own efforts, whilst an 'external person' believes that events in their life are beyond his control and should be attributed to fate, luck or destiny.

[5] The firm engaged in product/services and technological innovations undertook risky projects, led rather than imitated competitors and had a long planning horizon.

Figure 2.4 Leading strategic change



Source: Higgs, 2002

Prahalad and Bettis' (1986) seminal theoretical paper argued that 'dominant logic' explains the linkage between diversification strategies and firm performance. Dominant logic is a mind set or a world view that defines the way in which managers conceptualise the business and make critical resource allocations, including technologies, product development, distribution, advertising or human resource management. Dominant logic acts as an information filter, "*Organisational attention is focused only on data deemed relevant by the dominant logic,*" (Bettis and Prahald, 1995, p. 7). Prahalad and Bettis (1986) suggest the sources of this dominant logic are experience in core business, the power of the paradigm[6], the pattern recognition process or 'what worked before' (versus notions of some best strategy or

optimising procedure) and cognitive biases. Grant (1988) believed dominant logic was reflected in the systems through which the diversified corporation co-ordinates and controls its business units and sought to operationalise the concept through identifying determinants of strategic similarity for comparison across different businesses. Dominant logic is similar to Spender's (1989) concept of executives' 'industry recipes', the pattern of judgements executives adopt that results in a similar way of looking at their situation that is widely shared within the industry (Hitt and Tyler, 1991). The research on behavioural aspects of strategic decisions has lead theorists (e.g. Hambrick and Mason, 1984; Hitt and Tyler, 1991) to conclude that an accurate understanding of strategic decisions requires consideration of the effects of executives' personal characteristics.

2.2.3.1 The use of surrogate variables to measure executive characteristics

Following encouragement by Weick (1969)[7], Hambrick and Mason (1984) emphasised the importance of observable demographic managerial characteristics of top executives over psychological factors such as values as indicators of managers' characteristics: *"...some important but complex psychological issues are bypassed in favour of an emphasis on broad tendencies that, if empirically confirmed, can be later held up to the psychologist's finer lens...straightforward demographic data on managers may be potent predictors of strategies"* (pp.196-204).

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[6] 'Shared beliefs' or conventional wisdom about the world; the basic assumptions, concepts, propositions employed by a school of analysis (Prahalad and Bettis, 1986)

[7] Weick (1969), "There are several places in the organisational literature where investigators seem to resist defining their concepts in terms of observable actions by individuals in the mistaken belief that, in doing so, they will have to explain the actions psychologically. If... properties can be defined in terms of observable individual behaviours, there is a better chance that empirical research ... can be made cumulative" pp. 31-32.

Hambrick and Mason (1984) acknowledged the problem of relying on demographic variables to measure managerial characteristics: *"Demographic indicators may contain more noise than purer psychological measures. For example, a person's educational background may serve as a muddier indicator of socioeconomic background, motivation, cognitive style, risk propensity, and other underlying traits"* (p. 196). Their encouragement appears primarily based on the belief that psychological factors are difficult to measure and that top executives would be reluctant to participate in psychological batteries. Not surprisingly, a steady stream of research resulting from the research agenda put forth by Hambrick and Mason has shared a common methodological approach that employs the use of demographic characteristics and multivariate analysis (Higgs, 1997). The observable characteristics that have tended to dominate research on managerial elites are demographic factors such as age, tenure in the organisation, functional background, socio-economic roots and financial position (Pettigrew, 1992).

Linking demographic characteristics with organisational outcomes has been severely criticised (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991). Observers have warned against demography being used as an important causal variable that affects a number of intervening variables and processes, and through them, a number of organisational outcomes. Hambrick (2001) also acknowledged the problem, *"...I remain very sensitive to the fact that demographics are exceedingly limited, imprecise, and noisy surrogates for executive and team psychology, and that researchers need to investigate inside 'the black box' of demography..."* (p. 38). Lawrence (1991) asserts demographic forms of analysis alone, *"move researchers further and further away, both empirically and theoretically, from the actual mechanisms underlying observed relationships"* (p. 21). In what she calls the 'black box' of organisational demography, she argues that without the direct, concrete analysis of the

intervening mechanisms and processes, how can the reasons for any empirical link between input and output variables be explained? Pettigrew (1990) offers an indictment of demography-based top management team research by asserting that, *"...no-one has ever been anywhere near a top team in an organisational setting, either to directly observe a team in action, or to interview the members about the links between their characteristics and structure, processes of communication and decision-making and their impact on performance"* (p. 175). Some researchers have gone so far as to call for a moratorium on the use of demographic variables as proxies for psychological constructs (Galavan *et al.*, 2003). Finkelstein and Hambrick (1996) assert that psychological characteristics and experiences are mutually dependent through a two-way causality, and therefore, one cannot be reliably put before the other as they affect each other. They do, however, state more research is needed to examine the association between observable and psychological experiences.

The current research is an effort to overcome the limitation of solely relying on demographics as surrogate variables by using primary rather than secondary data whilst simultaneously measuring psychological and observable constructs to allow a comparison of their relative impact on performance, which is explained in more detail in section 2.4.6 on management styles and the Miles and Snow typology.

This section has introduced the theoretical model for the current research, the upper echelons theory, which conceptualises executive values as a behavioural factor that acts as a perceptual filter of strategic situations and choices. Previous research into measuring executive characteristics was reviewed and the limitations of relying solely on demographic variables as surrogates were discussed. The next section introduces the literature domain for the research.

2.3 Strategic leadership theory and executive values

This section introduces strategic leadership theory which is the literature domain that the upper echelon theory and the current research fall under. A definition of strategic leadership and its distinction from other forms of leadership is offered and key issues and propositions regarding the relationships between executive values and strategic decisions are considered.

The literature on leadership is vast (Higgs, 2003; Kotter, 1990) and is explored through a diverse range of discourses (Gill, 2002; Collingwood, 2001). The strategic leadership discourse provides a focus on strategic decisions and the role of the executive team (Gill, 2002). However, within the literature, whilst executive and managerial values are used co-terminously, no distinction is made between management and leadership. This differs from the discourses encountered in the behavioural literature where significant debate occurs around the distinction. For some time the classic distinctions of Zaleanik, (1992) and Kotter (1990) informed the debate. However, more recent authors (e.g. Goleman *et al*, 2002; Higgs, 2003) have challenged the relevance of the debate in today's organisational context. Thus, there is some evidence of convergence in thinking between the different schools of leadership on this issue. Hence, the debate around the distinction between management and leadership is not explored further in this review.

Whilst the resource-based view focuses on firms' unique resources and distinct capabilities and the positioning school of strategy focuses on strategic positioning (see section 1.4 on strategy for a review of both), strategic leadership argues that it is firms' top managers and their ability to understand the key strategic issues and make the appropriate strategic choices that contributes the most to firm success. The assumption that top managers make choices on

the basis of their own personalised interpretations of problems, options, and outcomes that affect firm strategy and performance is a key tenet of strategy leadership theory (Cannella and Monroe, 1997; Finkelstein and Hambrick, 1996). Despite the amount of research in the strategic leadership field, there is confusion in the literature about what strategic leadership is, particularly between leadership and strategy writers. According to some leadership theorists (e.g. Gill, 2002) strategic leadership concerns:

i. Developing the organisation's vision, mission, strategies,
ii. Monitoring progress and changes in the business environment,
iii. Monitoring how well organisational culture, including values, is supporting the organisation's vision and mission,
iv. Monitoring human capital – employees' competencies, budgets and organisational structure and systems.

Other leadership experts (e.g. Beatty and Quinn, 2002) describe it as something individuals and teams exert when they enhance an organisation's sustainable competitive advantage, through thinking, acting and influencing. In the strategy literature, Johnson and Scholes (2002) view strategic leadership encapsulating the entrepreneurial processes and strategic vision as part of strategy development. Rothschild (1996) believes it includes determining where to invest, developing a competitive strategic advantage, and getting the right leader who will then select the right team.

Hambrick (2001) argues that strategic leadership differs from other forms of leadership in two ways, in that it focuses on:

i. **Top executives**: people at the top of the organisation, whereas leadership refers to a leader at any level, and

ii. **Strategic activity**: executive work as a strategic activity as opposed to leadership that primarily refers to a relational activity implying followers. Relational activity has to do with inspiration, energising, communicating a vision, and bringing people along.

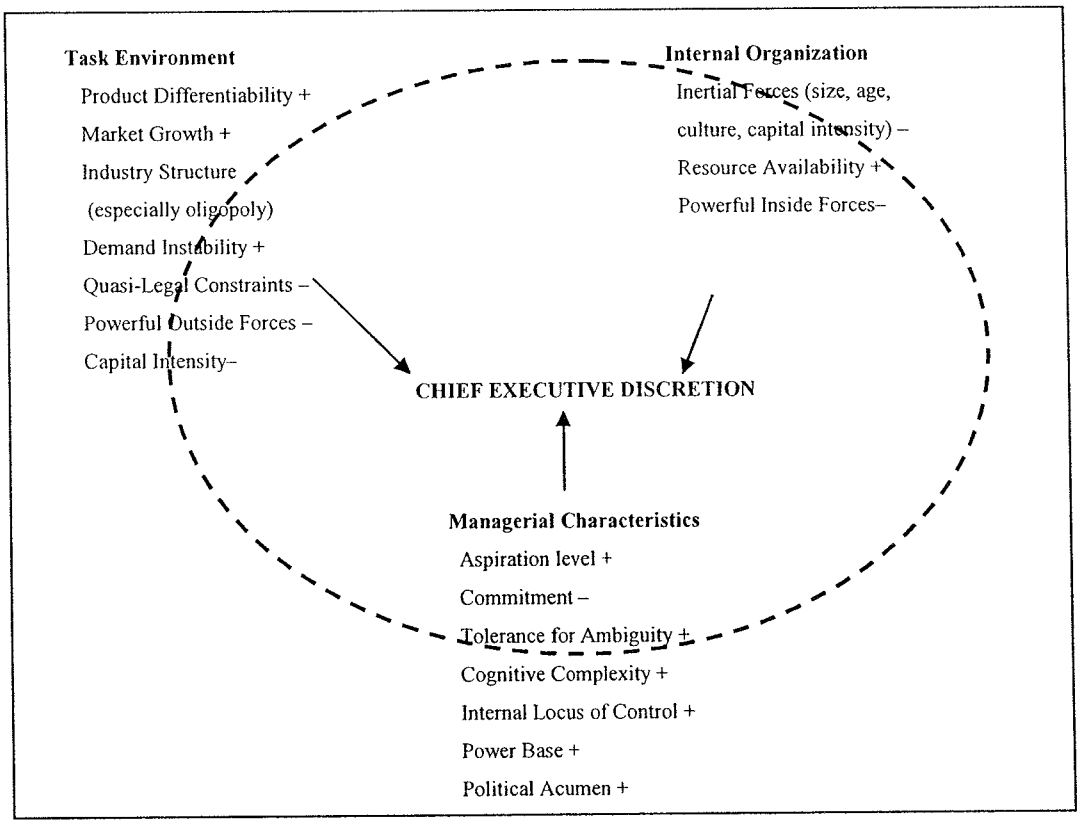
Although strategic leadership differs from other forms of leadership in these two important ways, it draws on two conclusions of leadership theory, namely, that leaders can change but are not so flexible that they can function optimally in every kind of organisation and the effectiveness of a leader depends on the nature of the situation in which he/she operates (Wissema *et al.*, 1980). Strategic leadership literature focuses on the leadership-strategy match, executives, their characteristics, what they do, how they do it, and particularly, their strategic choices (Finkelstein and Hambrick, 1996; Hambrick, 2001; Thomas and Ramaswamy, 1996). Its roots lie in a behaviourist perspective, *"You can't fully understand strategy unless you understand strategists"* (Hambrick, 2001, p. 42). Executives' perceptions are a function of a number of factors, such as their experiences, capabilities, values, tenure, personalities, functional backgrounds, and national cultures (Finkelstein and Hambrick, 1996). This research is focused on the role of values as a behavioural element in strategic choice and its implication on performance.

2.3.1 Managerial Discretion: Limitations to Executive Values and Action

A major theme in strategic leadership that impacts the link between executive values and choice is managerial 'discretion' (Hambrick and Brandon, 1988). Managerial discretion is defined as a manager's 'latitude of action' (Finkelstein and Hambrick, 1990; Hambrick and

Finkelstein, 1987) and the interplay between situational and managerial characteristics (Galavan *et al.*, 2003). Executives do not always have the freedom of action and their ability to influence organisational outcomes is dependent on their latitude. The three determinants of executive discretion are the degree of variety and change in the task environment, the degree to which an array of possible actions are entertained by the organisation and management's ability to execute them, and the extent to which an executive can envision multiple course of action (Hambrick and Finkelstein, 1987). The interrelationships between these are illustrated in Figure 2.4.

Figure: 2.4 The Forces Affecting Chief Executive Discretion



Source: Finkelstein and Hambrick (1996, p. 27)

The research on factors affecting the relationship between executive characteristics and outcomes is contradictory. Cannella and Monroe (1997) theorise that a CEO's individual

characteristics will more likely explain organisational outcomes when CEO power is high. Research into the role of politics suggests it has a significant impact on decision-making (Eisenhardt & Bourgeois, 1988; Eisenhardt, 1989). However, Miles and Snow (1994) argue that the perceptions of top managers are filtered through the organisation's strategy and the strategy in turn strongly reflects the perception of the top management team and thus takes into account the personal influence and functional power possessed by key executives.

Finkelstein and Hambrick's 1990 study on the relationship between strategic conformity, strategic persistence and organisational performance found that executive tenure was positively related to strategic persistence and conformity to industry norms in high discretion industries but not in low discretion industries. They also found that when organisations allowed top managers latitude as indicated by slack or small company size, the firm's strategic choices were more likely to reflect the tenure of the top executives than when slack was limited or the company was large, though the study suffers from limitations previously associated with the use of demographic variables. Miller *et al.*'s (1982) quantitative study of 33 businesses across a variety of industries in the Montreal region investigated the relationship between the personality of the CEO with strategic, structural and environmental variables. Using a locus of control scale to measure personality, they found personality was more strongly related to strategy and structure in small firms (average 450 employees) in dynamic environments than in large firms (average over 5,000 employees) in stable environments. Lieberson and O'Conner (1972) found that profitability could be more readily attributed to CEOs in industries with high advertising intensity and growth rates, than in commodity-like or low-growth industries.

Despite research which indicates that external factors mediate executive discretion, empirical evidence also supports the view that managerial characteristics-strategy alignment has a greater impact on performance than contextual variables such as industry characteristics, firm age and size (Thomas, 1989; Thomas *et al.*, 1991, Thomas and Ramaswamy, 1996). Thomas and Ramaswamy's (1996) study of managerial characteristics and strategic choice of 269 Fortune 500 companies in electronics, chemicals and petroleum refining sectors found that the leadership-strategy relationship explained a greater impact on performance ($R^2 = 0.29$) than either firm size ($R^2 = 0.06$), age ($R^2 = 0.18$) or industry characteristics ($R^2 = 0.07$). This research result supports the argument that factors limiting managers' discretion do not mitigate the significance of leadership-strategy alignment.

2.3.2 Propositions

Concluding the research that has been done on executive values affecting choice, Finkelstein and Hambrick (1996) recognise the importance of values as a basis for executive action and the research void that exists: *"Executive values is an open field for research. Even though values are undoubtedly important factors in executive choice, they have not been the focus of much systemic study"* (p. 48). They surmise that, *"In fact, values may greatly determine other psychological characteristics, including cognition..."* (p. 54). Researchers have theoretically assumed the importance of executive values but empirical research to quantify it and its relationship with strategic choice is lacking. This research aims to add to the body of empirical research in the executive values-strategic choice literature.

Finkelstein and Hambrick (1996) set out 6 avenues of inquiry, (pp. 55-56):

i. More examination of the factors shaping executive values

ii. The need to study values from the perspective of agency theory

iii. A need for a greater understanding of the links between values and cognition

iv. How executive values and specific situations interact to affect choice

v. The need to study the links between executive values and corporate goal setting

vi. The need to study the broad associations between executive values and organisational characteristics

This research will focus on (i), (vi) and to a small extent (v). Concerning organisational characteristics, they posit, *"Do executives select strategies in line with their values?"* leading to an overall proposition, *"Executive values are reflected in the choices they make"* (p. 54), which is an overarching focus of this research that will be explored in the research model and hypotheses chapter.

Having examined strategic leadership theory and key issues related to executives' values, the next section reviews the literature on strategic decisions and top management.

2.4 Top management and strategic decisions

This section provides an overview of the relationship between top management and strategic decisions. The locus of strategic decisions is discussed and a definition of what is understood by the key decision-makers is provided. Different definitions of strategic decisions are examined and a definition is given. Finally, the different models of strategic decision-making are presented and the framework used in this research is considered.

2.4.1 What is a dominant coalition?

Only a few studies seeking to understand the relationship between senior executives to a firm have focused solely on the CEO (e.g. Thomas, *et al.*, 1991; Norburn, 1989). Most studies in strategic leadership and decision making (e.g. Eisenhardt and Bourgeois, 1988; Eisenhardt, 1989; Sturdivant *et al.*, 1985; Thomas and Ramaswamy, 1996) agree with Cyert and March (1963) and Hambrick and Mason (1984) that the most appropriate level of analysis is the 'dominant (organisational) coalition'. Concerning values research, this is supported by Hage and Dewar's (1973) study of elite values versus organisational structure in predicting innovation. In a sample of 16 health and welfare organisations in a large Midwestern city (not specified) in the US, the values of the executive director had a lower predictive power (R^2 = 0.60) of programme innovation than the executive director and those who stated their participation in strategic decisions (R^2 = 0.69). In Sturdivant *et al.*'s (1985) study of management values and how they affect financial corporate performance they state, *"In most organisations, it will be the collective personal values of senior management which will have the greatest influence on corporate goals"* (p. 18).

Identifying the appropriate level and influence of executives involved in strategic decisions is problematic. Who does the senior management or dominant coalition consist of? Prahalad and Bettis (1986) define the dominant coalition as 'a collection of key individuals'. The dominant coalition is more commonly referred to as the top management team (TMT), although Arendt and Priem's (2003) CEO-advisor model of strategic decision-making includes advisors to the CEO that are not necessarily even on the TMT, such as an executive coach or a family friend. Hambrick (1995) defined the TMT as "t*he relatively small group of the most influential executives at the apex of an organisation,*" (p. 111). But is every member of the TMT a key

individual in strategic decision-making? Two approaches taken in the literature to understand the dominant coalition are *structural,* based on job titles, and *behavioural*, which tries to determine who are the actual players involved in strategic decision-making (Amason *et al.*, 2003). A structural approach may lead to a potentially flawed use of arbitrary levels or titles to the exclusion of others that may have a significant contribution to strategic decisions, and conversely, titled executives that may make no contribution to decisions (Keck, 1991). The weakness of the behavioural approach is highlighted by Amason *et al.*, (2003) that question whether if one was to ask the same question of who was involved in strategic decisions today would we get the same answer tomorrow?

Wiersema and Bantel (1992) attempted to avoid this problem by defining the TMT as the two highest executive levels regardless of titles: *"...by defining the top management team as the two highest executive levels regardless of titles used, we achieved greater consistency across the sample of firms than other studies"* (p. 104). Research into top teams leaves an open question as to the best way to understand the 'dominant coalition'. Implications for the current research will be explored in section 4.2.3.5 on perceived strategic decision influence.

2.4.2 What are strategic decisions?

Having dealt with some issues about who is involved in strategic decisions, we must now ask what are they? Strategic decisions are specific commitments to action that are *"important in terms of actions taken, resources committed, or the precedence set"* (Mintzberg *et al.*, 1976, p. 246) to a firm's future direction, competitive position, success and survival that are typically the responsibility of the top management team (Eisenhardt, 1999; Hough and White, 2003; Schoemaker, 1993). Strategic decisions are also complex, associated with multiple and

conflicting goals, myriad strategic options and unknown outcomes as opposed to operational decisions that lend themselves to calculable solutions (Hambrick and Mason, 1984; Martin-Fagg, 2003).

Different 'schools' have different perspectives on the nature of strategic decisions. From the neo-classical school's perspective, strategic decisions are the concern of top managers or the chief executive formulated through a deliberate process of rational analysis where financial techniques are essential guides to profit-maximising strategic decisions and these decisions are implemented by managers lower in the organisational structure (Bourne and Jenkins, 2003; Whittington, 1993). In contrast, authors such as Minkes and Foxall (1980) characterised strategic decisions as 'diffused entrepreneurship' that characterises the interaction between levels of management that results from delegated authority and managerial discretion, which is a function of the growth in size and complexity of the modern organisation. From the behavioural or 'processual' perspective, strategic decisions are not so much 'taken' as they emerge. Decisions in practice are often not followed by action, and actions are not necessarily the outcome a single identifiable decision (Whittington, 1993). Bateman and Zeithaml (1989) describe managerial decisions as *"typically an episode in a series of decisions"* (p. 60). Implementers with their own interpretations and values function at many different levels, and according to Mintzberg (1994), almost anyone in the organisation can prove to be a strategist. Miles and Snow (1984) emphasise the self re-enforcing nature of strategy arguing that the perceptions of top managers are filtered through the organisation's strategy and the strategy in turn strongly reflects the perception of the top management team and thus permeates the organisation.

A stream of decisions reflects an aggregate pattern of behaviours or posture that over time becomes 'organisational strategy' (Minkes and Foxall, 1980; Mintzberg, 1976, 1990; Miles and Snow, 1978). Strategic decisions evolve and take a form of patterns or gestalts. Patterns of decisions determine and reveal objectives, purposes, goals, policies and plans that define the central character, image and position of the organisation (Andrews, 1987). In strategic management theory, patterns are referred to as 'typologies', which are discussed in the section on strategy management theory. It is in this sense that strategic decisions are understood for the purposes of this research, which will be discussed in detail in the section on strategy.

2.4.3 Models of strategic decisions

The main paradigms of strategic decisions identified in the literature are the *political*, the *garbage can* and organisational models of *bounded rationality* and *upper echelons* (Eisenhardt and Zbaracki, 1992; Schoemaker, 1993). The *power model* advocates that decisions are the result of top managers competing with one another out of self interest (Sharfman and Dean, 1997). In the context of conflicting interests, the decision process involves influence, political tactics and negotiations between power bases. The *garbage can* model champions an important role for ambiguity, trial and error and a loose understanding of means-ends (Cohen *et al.*, 1972). The model describes the decision-making process as a random convergence of problems and solutions where participants come and go from the decision making process. The *bounded rationality model* views top managers as pursuing organisational objectives rationally, within the limits of their cognitive ability (March and Simon, 1958; Cyert and March 1963). Cognitive limitations such as time, information and computational ability limit managements' ability to explore alternatives comprehensively, objectives are readjusted and they satisfice rather than optimise (Eisenhardt and Zbaracki,

1992). The upper echelons theory is another organisational model of strategic decision-making that assumes top managers pursue the same organisational objectives whose strategic decision is biased by one's perceptual lens. The decision making process is one of team and small group dynamics.

Schoemaker (1993) argues that one's choice of strategic decision model is dependent on one's assumptions about the decision context, specifically, the level of decision efficiency and goal congruence (see Table 2.2).

Table 2.2 Conceptual schema of major strategic decision-making schools

Goal congruency	Co-ordinated Efficiency Low	High
High	Organisational models: i. Bounded rationality, and ii. Upper echelons theory	(Unitary actor model[8])
Low	Garbage can model[9]	Political model

Source: Adapted from Schoemaker, 1993, p. 109

The political model applies when the individual or departmental goal supersedes the organisational goal (low goal congruency), which assumes high co-ordinated effectiveness. The garbage can is a contextual view where unresolved conflicts exist amongst goals with low degrees of co-ordinated efficiency across functions and problems. The organisational model assumes multiple players pursue the same objective or common goals (high goal congruency)

[8] This paradigm is used to assess political situations such as the Cuban missile crisis (Allison, 1971) and therefore is out of the scope of strategic decision-making in a business context.

– 'winning the game' – though relatively low co-ordinated effectiveness due to the internal complexity of most management teams and organisations (Schoemaker, 1973).

The *garbage can* and *power* models have been criticised for lack of empirical support (Eisenhardt and Zbaracki, 1992). Contrary to the predictions of the *garbage can* model, empirical support exists for preferences (Kriener, 1976), participation is not always fluid (Magjuka, 1988) and institutional factors constrain or 'put a lid on' the garbage can (Levitt and Nass, 1989). Evidence has also been found that contradicts the prediction of the power paradigm that office politics are fluid and decision-makers easily shift alliances. Eisenhardt and Bourgeois' (1998) study of microcomputer firms found that frustrated executives turn to politics *as a last resort* in autocratic regimes and power vacuums rather than characteristically engage in politics to gain a favourable position. When allies disagree on an issue, executives do not seek out more favourably disposed executives, but rather they either drop the issues or pursue their interests alone. Eisenhardt and Bourgeois (1998) also found that many people dislike politics, which leads to their assessment that theorists underestimate the degree to which executives put aside parochial interests to avoid animosity and time wasting. Eisenhardt and Zbaracki (1992) conclude, *"At one extreme, the garbage can ignores the cognitive capability of decision-makers. At the other extreme, the political model assumes people are cognitive superheroes who integrate the desires of all participants and calculate comprehensive political strategy to further their clearly understood aims. Neither resonates with reality"* (p. 33). They also criticise the bounded rational model for creating the 'straw man' of purely rational choice and contributing to a traditional view of rationality and

[9] This quadrant also includes population ecology and other theorists that have been excluded due to the focus on the major paradigms of strategic decision-making according to Eisenhardt and Zbaracki (1992).

'bounded rationality' at opposite ends of the spectrum. Rather, strategic decision-makers are multidimensional, rational in some ways, but not in others.

Whilst on balance the upper echelons theory as an organisational model of strategic decision-making used in this research appears to make more realistic assumptions about the context of strategic decisions than the other major paradigms, this review suggests some potential weaknesses with the organisational model. It may well be that for entrepreneurial organisations with an autocratic leader, the unitary actor model could be more appropriate than the organisational model (Schoemaker, 1993).

Is the organisational model valid for different types of managers such as owner/managers, senior managers and middle managers? Furthermore, it may well be that in dysfunctional, reactive organisations, goal congruence is much lower than the organisational model assumes. One of the organisational types in this study, Reactor, allows for a garbage can type of decision-making model to be captured. Reactors are a dysfunctional, reactive, unstable strategy type that suggests a lack of goal congruence amongst administrative, product/market and engineering dimensions discussed in greater depth in the section on the Miles and Snow (1978, 1994, 2003) typology. Although this study will explore to a limited degree different paradigms for different organisation it is not fine-grained enough to test the appropriateness of different paradigms for all organisations. Therefore, the assumption that the organisational model is appropriate for every organisation in the study except Reactors is a limitation of the research.

This section has reviewed the definitions and issues of upper echelons and strategic decisions. The next section will cover business level strategy.

2.5 Strategy

This section provides an overview of strategic orientation as a key construct of the research. The current research extends previous studies on leadership-strategy alignment which is also reviewed. Different models of strategy are evaluated and the conceptual framework for strategic orientation is presented.

2.5.1 Business-level strategy

Strategy is derived from the Greek word *strategos – the art of generalship* – and means many different things to different people. In general, strategy can be thought of as the logic of how an organisation is going to compete, which differs from a plan of how to make it happen. The literature distinguishes between different levels of strategy, business-level or competitive strategy and corporate strategy. Competitive strategy concerns how to create competitive advantage at the business unit of a diversified company and corporate strategy concerns what business the corporation should be in and how the corporate office should manage the array of business units (Porter, 1987). The focus of this literature review is on business level strategy. Mintzberg's (1987) classic article, "The Five Ps for Strategy", outlines the different ways strategy has been conceived in the literature by different authors:

Plan: a consciously intended course of action

Ploy: a consciously intended manoeuvre

Pattern: a consistency in behaviour, either consciously or unconsciously, as in a pattern of decisions in a steam of actions

Position: an organisation's choice of niche arrived at either through a plan or pattern of behaviour.

Perspective: an ingrained way of seeing the world. Strategy acts as a collective mind to unite individuals' common thinking and behaviour: *"Strategy in this respect is to the organisation what personality is to the individual"* (p. 16).

Clearly, these different definitions are not mutually exclusive. Mintzberg (1987) stresses they complement each other and urges 'eclecticism in definition'; strategic management cannot afford to rely on a single definition of strategy! Although there are many different lenses, schools or perspectives on strategy—e.g. Taylor's (1976) five dimensions of corporate planning and Johnson and Scholes' (2002) three strategy lenses—Mintzberg and Lampel's (1999) Ten Schools of Strategy is the most enduring and influential in the field. They divide the schools up in terms of Prescriptive and Descriptive.

Prescriptive Schools

The design, planning and positioning schools are considered prescriptive or 'ought' schools that are more practioner-oriented and consultant promoted:

i. Design School: A Process of Conception

Achieving fit between internal strengths and weaknesses and external threats and opportunities espoused by Selznick (1957), Chandler (1962) and Andrews (1987).

ii. Planning School: A Formal Process

Formal, decomposable into distinctive steps, delineated by checklists and supported by techniques, espoused by Ansoff (1965).

iii. Positioning School: An Analytical Process

Generic positions selected through formalised analysis of industry situation, espoused by Porter (1980, 1996), Hatten and Schendel (1977) and Sun Tzu (1971).

Descriptive Schools

Away from the focus on precise designs, plans or positions, the entrepreneurial, cognitive, learning power, cultural, environmental and configuration schools are descriptive or 'is' schools:

iv. Entrepreneurial School: A Visionary Process

The process in the 'mysteries of intuition', visions or broad perspectives through metaphor and different contexts (e.g. start-up, niche, private ownership, 'turnaround'). Leader controls implementation and formulates vision.

v. Cognitive School: A Mental Process

Strategy as frames, models, maps concepts or schemas and understanding the mental processes behind them. The focus is on the cognitive biases in strategy making and on cognition as information processing, knowledge structure mapping and concept attainment.

vi. Learning School: An Emergent process

Strategy-as-learning includes the assumptions that strategies are emergent, can be found throughout the organisation, and formulation and implementation is intertwined. Examples include Quinn's (1980) logical incrementalism, Burgelman's (1983) notion of venturing, Mintzberg *et al.*'s (1978) emergent strategy and Weick's (1979) notion of retroactive sense making.

vii. Power School: A Process of Negotiation

Strategy making rooted in power. On the micro level, the development of strategies within organisations is essentially political – a process involving bargaining, persuasion, and

confrontation among actors who divide power. Macro power views the organisation as an entity that uses its power over others and among its partners in alliances, joint ventures and other network relationships to negotiate 'collective' strategies in its interest.

viii. Culture School: A Social Process

The reverse of the Power school, strategy formation as a social process is rooted in culture that focuses on common interest, integration and the influence of culture that discourages significant strategic change.

ix. Environmental School: A Reactive process

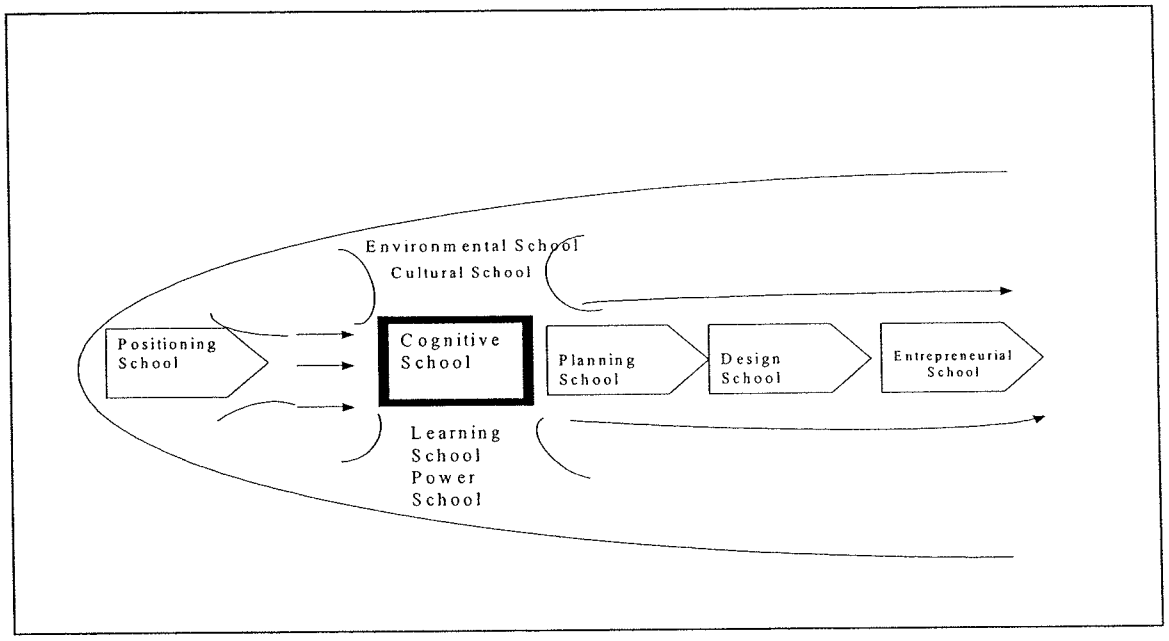
This approach illuminates the demands of the environment and the severe limits to strategic choice. It includes contingency theory that considers which responses are appropriate for particular environmental conditions and population ecology.

x. Configuration School: A Process of Transformation

Organisation as configuration – coherent clusters of characteristics and behaviours where change is transformational, from one state to another.

Mintzberg and Lampel (1999) ask whether these different perspectives represent different processes of strategy making or different parts of the same process, as seen in Figures 2.5 and 2.6.

Figure 2.5: Strategy formation as a single process

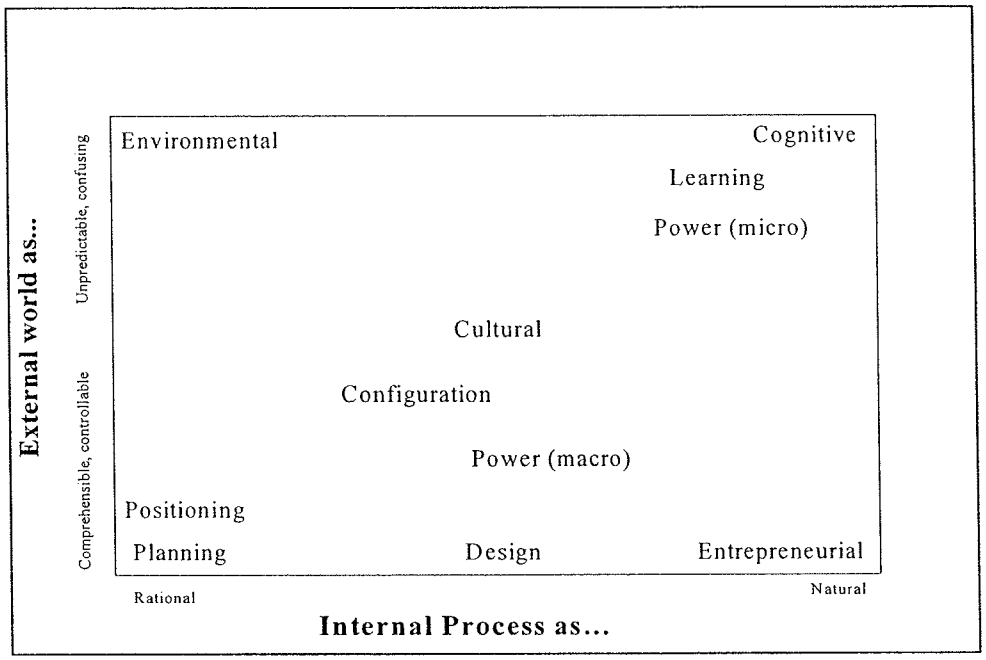


Source: Mintzberg and Lampel (1999), p. 27

As distinct as the schools may be, they prefer to remain ambiguous on this point. They argue that the process can tilt toward the attributes of one school or another, e.g. toward the entrepreneurial school during start-up or toward the learning school when there the need for a dramatic turnaround under dynamic conditions when prediction is impossible. Nevertheless, they are inclined to favour the interpretation that the schools represent fundamentally different processes. They also point out that these categories are not definitive and different schools of thought are emerging which cut across the schools. For example, institutional theory concerned with the institutional pressures faced by organisations is a hybrid of the Power and Cognitive school, stakeholder analysis links the Planning and Positioning schools and Chaos theory is a hybrid of the Learning and Environmental school.

Mintzberg and Lampel (1999) assert the 'dynamic capabilities' approach of Prahalad and Hamel (1990) that includes the concepts of *core competence*, *strategic intent* and *stretch* is a hybrid of the Learning and Design schools.

Figure 2.6: Strategy formation as many processes



Source: Mintzberg, Lampel (1999), p. 28.

They distinguish *dynamic capabilities* from the *Resource-based view* (RBV), which they argue is a hybrid of the Learning and Cultural schools. Their rationale is that the 'dynamic capabilities' approach is prescriptive, practitioner-focused and emphasises strong leadership to encourage continuous strategic learning whilst the RBV is more descriptive, research-focused and focuses on culture. Distinguishing core competence from culture and the RBV is a testament to the overlap and somewhat arbitrary distinctions of these schools.

Having reviewed the major schools in strategy, the strategic perspective of the current research will be introduced.

2.5.2 Strategic choice in strategic management theory: Typologies

In strategic management theory, the strategic choice perspective is reflected in typologies of strategic orientation (Doty *et al.*, 1993; Finkelstein and Hambrick, 1996). A stream of executives' strategic choices reflects an aggregate pattern of behaviours or posture that over time becomes an organisation's strategic orientation (Mintzberg, 1976, 1990; Miles and Snow, 1978). In Mintzberg and Lampel's (1999) classification it straddles the environmental school which Mintzberg and Lampel (1999) state includes contingency theory (see next section 2.5.3), the Configuration school and also has elements of the Positioning school in that the different strategic postures define the firm's overall competitive position. The strategic choice view is rooted in Miles and Snow's (1978, 1994, 2003) typology: *"Consistent with the strategic choice view approach to the study of organisations, the model (the adaptive cycle) parallels and expands ideas formulated by theorists such as Chandler, Child, Cyert and March, Drucker, Thompson, and Weick...choices top managers make are the critical determinants of organisational structure and process"* (p. 433). Not surprisingly, the Miles and Snow typology is predominantly used in research into the relationship between managerial characteristics and strategy (e.g. Domicone, 1997; Thomas, 1989, Thomas *et al.*, 1991, Thomas and Ramaswamy, 1996).

2.5.3 Structural contingency theory

The Miles and Snow (1978, 1994, 2003) construct of strategic typologies is considered to stem from configuration theory, which according to Drazing and Van de Ven (1985) is a subset of contingency theory. Drazing and Van de Ven's (1985) notion that configuration is a subset of contingency theory differs from Mintzberg and Lampel's (1999) classification that views contingency theory as a subset of the Environmental school and separate from the

Configuration school, although McCall (1999) argues that it is truly difficult to classify organisational configurations to any one research stream.

Contrary to the view that there are principles that managers can universally apply in any organisation in any situation, 'the one method fits all' approach, contingency theory posits *strategic equifinality,* i.e. that within a particular industry or environment there is more than one way to prosper (Hambrick, 2003). The central proposition of structural contingency theory is that the structure and processes of an organisation must fit its context if it is to survive or be effective, including characteristics of an organisation's culture, environment, technology size or task (Drazing and Van de Ven, 1985). As cited in McCall (1999), Joynt (1975) maintains that the fundamental concept of contingency theory is that 'it all depends' on the situation at hand, the manager, the type of technology and productivity philosophy as well as motivation and learning techniques, and most importantly, how the organisation manages and organises its activities and reacts to the environment it operates in. Miles and Snow (2003, p. 263) state that their model stems from the contingency approach, but because contingency models have emphasised differences rather than similarities of organisational behaviour and have focused on environmental determinism rather than managerial choice as the primary cause of organisational characteristics, they advocate a 'neo-contingency' perspective, that:

i. Views managerial or strategic choice as the primary link between the organisation and its environment,
ii. Focuses on management's ability to create, learn about and manage the organisation's environment,
iii. Encompasses the multiple ways that organisations respond to environmental conditions.

They add that this perspective has not taken a fully definitive shape and its adherents have not been clearly identified.

Contingency theory differs from other theories in the form of its proposition (Drazing and Van de Ven, 1985), clarified by Fry and Schellenberg's (1984) distinction between congruent and contingent propositions. In a congruent proposition a simple unconditional association is hypothesised to exist among variables in the model (e.g. the greater the task uncertainty, the more complex the structure). A contingent proposition has a hypothesised conditional association of two or more independent variables with a dependent outcome (e.g. task uncertainty interacts with structural complexity to affect performance).

2.5.3.1 Fit and co-alignment

A key concept of contingency theory is fit. Venkatraman and Camillus (1984) define the concept of 'fit' in strategic management as a process of aligning an organisation to its environment and as content, *"the elements to be fitted together to reach the desired configuration"* (p. 515). Fit and alignment meaning 'functioning as a whole' are often used interchangeably (Senge, 1995). A major problem with the concept 'fit' is the precise definition needed to test and recognise whether an organisation has it or not (Drazin and Van de Ven, 1985; Venkatraman, 1989). Venkatraman (1989) outlines 6 perspectives of fit, fit as: *profile deviation, mediation, moderation, gestalts, covariation, and matching.* Regarding strategic leadership including the current research, the fit between strategy and managerial characteristics is referred to as 'co-alignment' and specified as a 'matching' paradigm (Thomas *et al.*, 1991; Thomas and Ramaswamy, 1996; Venkatraman and Prescott, 1990).

Drazing and Van de Ven (1985) indicate there are three types of fit, *selection, interaction* and a *systems* approach, and the Miles and Snow typology as a configuration is a systems approach to fit. *Selection* fit is an assumed premise underlying congruence between context and structure where the test method is that correlation or regression coefficients of context should be significant. *Bivariate interaction* fit is the interaction of pairs of organisational context-structure factors that affect performance, where the test method is context-structure interaction terms in MANOVA or regression equations on performance should be significance. The systems approach examines patterns of consistency among dimensions of organisational context and structure affects performance (Miller, 1981) where the test method is deviations from ideal-type designs that should result in lower performance.

Like Venkatraman and Camillus (1984), Miles and Snow (1978, 1994, 2003) also distinguish between *strategic* fit between the organisation and its environment (alignment) and *internal* fit among strategy, structure and management processes (arrangement). They argue strategy is about the concept and process of discovering and maintaining fit. The four dynamics of fit which they maintain explain success or failure in organisations, as shown in Table 2.3. The consistency of strategy, structure and processes result in configured patterns that are the basis of strategic-organisational types.

2.5.3.2 Configuration theory

'Typology', 'archetype', 'generic strategies' and 'strategic orientations' are terms related to 'organisational configuration', defined by Ketchen *et al.* (1997, p. 224) as, *"groups of firms sharing a common profile of characteristics that commonly occur together".*

Table 2.3 The Dynamics of Fit

Misfit.....Failure
Minimal fit.....Survival
Tight fit.....Excellence
Early, tight fit.....Hall of Fame

Source: Miles and Snow (1994), p. 19

Configuration is the degree to which the organisation's elements are orchestrated and connected by a single theme (Miller, 1996). The individual parts of an organisation take their meaning from the whole and cannot be fully interpreted or understood in isolation (McCall, 1999; Mintzberg *et. al.*, 1999). Mintzberg (1991) illustrates configuration as the way the pieces of a jigsaw puzzle all fit together to obtain a complete image.

Some theorists refer to strategic typologies as a broad categorisation of a firm's strategic behaviour (Namiki, 1989). In this sense, organisations are conceived as *coherent clusters of characteristics of behaviour* (Mintzberg *et al.*, 1991, 1999). However, Doty *et al.* (1993) argue that configurations are more accurately described as an 'ideal-type' construct, which is used to represent a holistic configuration of organisational factors. An organisation that approximates one of these 'ideal types' is hypothesised to be more effective than other organisations (McCall, 1999). Typologies enable the classification of organisations in a framework for theory development and are an enduring theme in strategic management. Table 2.4 provides a selection of examples to illustrate this. Typologies are useful because they highlight the essential feature of separate, specific strategies, capturing their major

commonalties to facilitate the study of general strategic patterns of behaviour (Doty *et al.*, 1993; Herbert and Derskey, 1987; Pinder and Moore, 1979; Thomas and Ramaswamy, 1996).

Table 2.4 Examples of Strategic typologies

Author(s)	**Typology**
Ansoff and Stewart (1967)	First-to-market Follow-the-leader Applications engineering Me-too
Lynch & Kordis (1990)	Carps Sharks Dolphins
McKinsey (1999)	Shapers Adapters Reserve-the-right-to-play
Miles & Snow (1978,1994, 2003)	Prospectors Analysers Defenders Reactors
Miller (1999)	Craftsman Pioneer Salesman
Mintzberg (1978)	Quality Image Design Price Support Undifferentiated strategy
Moss Kanter (2001)	Pace setters Laggards
Parasuraman and Zinkhan (2002)	Explorers Pioneers Sceptics Paranoids Laggards
Porter (1985)	Cost leaders Differentiators Focused players
Treacy and Wiersema (1993)	Operational excellence Product leadership Customer intimacy

2.5.4 The leadership-strategy match

The current research falls in the lineage of studies into the leadership-strategy relationship which takes the contingency perspective that:

i. Effective implementation of a strategy depends on a match between individual personality and the job, an executive whose style has strengths consistent with the competencies required of the strategy (Gupta and Govindarajan, 1984),

ii. Managers whose skills, management styles and behaviours are congruent with particular strategies will perform better than those that don't achieve a match (Hambrick and Mason, 1984; McCall, 1999; Szilagyi and Schweiger, 1984).

Thomas *et al.* (1991) asserts that a *"coalignment between managerial characteristics and strategy is necessary, otherwise there will be a conflict between the distinctive competencies of the organisation and managerial decisions"* (p. 511). From a practical perspective, Rothschild (1993), a former senior corporate strategist at the General Electric Corporation, reflects on his 30 plus years of experience at the company and maintains that the critical factor determining success or failure of a company is that the leader and strategy are synchronised and compatible. Wissema *et al.* (1992) argued managers of a business with a 'build' strategy need to be more entrepreneurial than compared to a 'harvest' business, which was supported by Gupta and Govindarajan's (1984) research that found managers with greater marketing/sales experience, greater willingness to take risk and greater tolerance for ambiguity contributed to effectiveness in 'build' strategies but hampered in the case of 'harvest' strategies.

Although empirical work on co-alignment is somewhat limited there is a wide range of corporate examples based on inferences of executive values (particularly those of CEO's) and strategic orientation, e.g. Ben Cohen and Jerry Greenfield of Ben & Jerry's ice cream, Anita Roderick and the BodyShop and Bill Gates and Microsoft.

There have been a variety of attempts at executive-based typologies which attempt to relate managerial characteristics to strategic orientation. Table 2.5 illustrates a number of more notable of these. In some cases the linkage is argued though the identification of job requirements for a strategic type. However, many typologies that are used in the management literature suffer from a lack of empirical evidence to support the theoretical assertion.

Various attempts to classify managerial characteristics and find fit with organisational strategy suffers from qualitative assessments which cannot be tested, since attempts to classify manager-strategy types are discussed in 'vague generalities' (Gupta and Govindarajan, 1984; Szilagyi and Schweiger, 1984; Thomas and Ramaswamy 1996). In an overview of the field, Finkelstein and Hambrick (1996) acknowledge that whilst the research is directionally correct, they beseech their colleagues, *"to go one step back in the causal chain and use data on the fundamental characteristics of executives themselves (such as their risk orientation, cognitive style, values, tenure in their company, functional background)"* (p. 107).

The exception to strategic typologies that suffer from a lack of empirical evidence is the Miles and Snow (1978, 1994, 2003) typology. It has been scrutinised empirically and theoretically and has become widely recognised (e.g. Doty *et al.*, 1993; Finkelstein and Hambrick, 1996; Ghoshal, 2003; Shortell and Zajac 1990; Zahra and Pearce, 1990), in a wide array of settings, e.g. hospitals, colleges, banking, industrial products, IT and life insurance, and researchers have found consistent support for the validity of the typology (Hambrick, 2003). Moreover, the typology distinguishes itself from other strategy types such as Porter's (1980) generic strategies in its insights into organisational processes and structure as well as strategy (Ghoshal, 2003).

Table 2.5 Summary of Selected Strategy-Manager Matching Models

Model	Strategies	Job Requirements	Managerial Characteristics
Chandler (1962)	1. New products, markets, and acquisitions 2. Administrative reform, to tune their organisations to become cost effective		1. Empire builder 2. Organisation builder
Hofer and Davoust (1977)	SBU level only 1. Invest/Grow 2. Earn/Protect 3. Harvest/Divest		1. Mature entrepreneur, planner entrepreneur, turnaround entrepreneur. 2. Sophisticated planner, profit planner, turnaround specialist 3. Professional manager experienced cost cutter, professional liquidator.
Kerr (1982) Reward System	Introduction, growth, maturity, decline as applied to homogeneous firm	Reward system that focuses on critical job responsibilities (i.e. performance criteria)	Model advocates eliciting desired managerial behaviours through the use of reward systems.
Leontiades (1982) Stages of Growth	1. Steady-state 2. Evolutionary	1. Efficiency based on SBU 2. Growth, investment in other areas/markets	1. Activist, growth entrepreneur, product manager, R&D planner 2. Remote controller, aloof strategist, acquirer, growth director
Miles and Snow (1978,1994,2003) Typologies	1. Defender 2. Prospector 3. Analyzer 4. Reactor	1. Domain protection, efficient production, strong control emphasis 2. Locate and exploit new opportunities, technological flexibility, co-ordination of needs 3. Combination of above 4. Variable	1. Finance and or Production expertise in dominant coalition 2. Marketing and or R&D expertise in dominant coalition 3. Combination of above 4. Variable
Porter (1980) Generic strategies	1. Cost leadership 2. Differentiation 3. Focus	1. Tight cost control, frequent reports, strict rules, incentive-based targets, access to capital. 2. Coordination focus, incentives based on quantitative targets. 3. Combination of above	1. Process engineering skills, task orientation skills (inferred) 2. Coordination skills, product engineering skills, marketing knowledge creative abilities (inferred) 3. Combination of above
Tichy *et al.* (1982) Wanted a Manager	SBU level only 1. Grow 2. Defend 3. Harvest		1. Growers 2. Caretakers 3. Undertakers
Rothschild, (1992,1993) The Four faces of Strategic Leadership	SBU level only 1. Embryonic 2. Growth 3. Maturity 4. Decline 5. Harvest	1. Aggressive grower: gaining share and transforming the business into market leader 2. Selective grower: Organise and install systems and infrastructure required for sustainable growth 3. Pruner (refocus): Comprehensive objective, calculating evaluations and who are willing to prune their product offerings	1. Risk takers: aggressiveness 2. Caretakers: nurture and care for the development of the business 3. Surgeon: careful, methodical pruning 4. Undertaker: put to rest
Wissema *et al.*, (1980) Archetypes	1. Explosive 2. Expansion 3. Continuous Growth 4. Slip 5. Consolidation 6. Contraction	1. Improve competitive position in short period 2. Improve competitive position over long term 3. Maintenance activities 4. Cost reduction 5. Dexterity, flexibility and artistry 6. Various	1. Pioneer 2. Conqueror 3. Level-headed ruler 4. Administrator 5. Economiser 6. Insistent Diplomat

Source: Adapted from Thomas (1989) and Thomas *et al.* (1996)

Due to reasons of theoretical consistency, empirical reliability, validity and replicability, the Miles and Snow typology will be used to operationalise strategic orientation.

2.5.5 The Miles and Snow typology

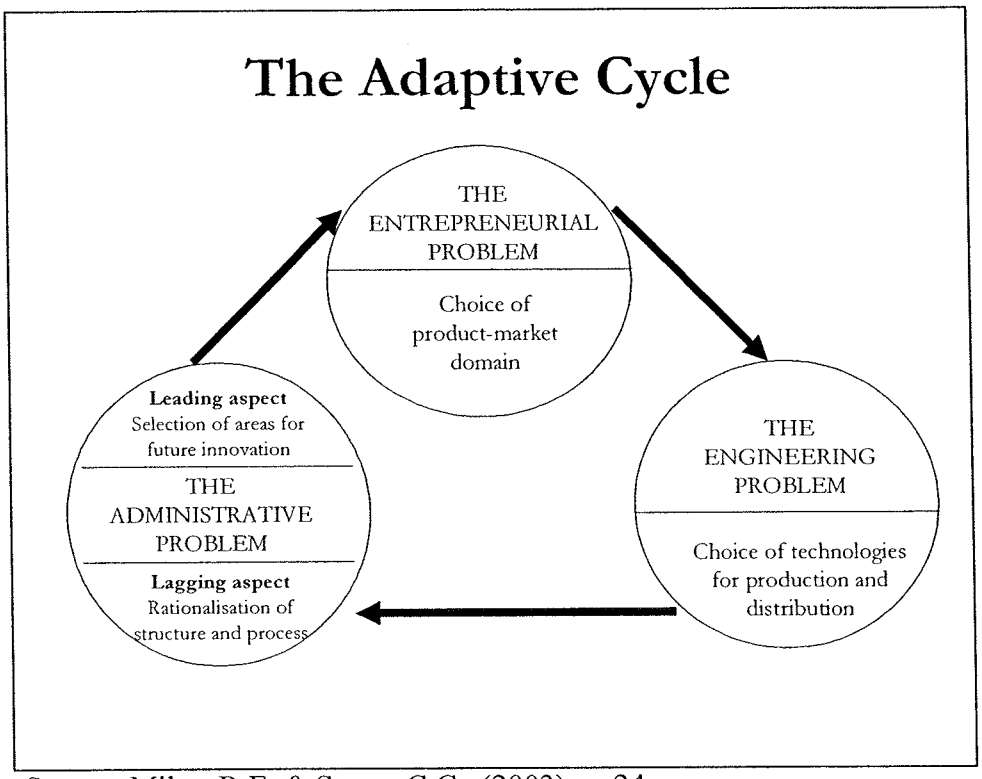
The Miles and Snow typology is a hybrid of organisational theory and strategy that is based on the premise that management's strategic choices shape organisations' structure and process by choosing products/service scope, technologies and organisational systems. The typology includes two major elements:

i. A general model of the process of adaptation that specifies the major decisions needed by an organisation to maintain alignment with its environment provide a description of strategy,
ii. An organisational typology that portrays different patterns of adaptive behaviour by organisations within a given industry or grouping.

Miles and Snow (1978,1994, 2003) identify three adaptive decision areas or 'problems' in which top managers make critical decisions concerning an organisation's strategy, structure and process, as seen in Figure 2.7

The *entrepreneurial* problem relates to senior managers' strategic choices that determine the product/market domain for the organisation, the *engineering* problem relates to decisions made concerning the practical need to create and distribute products and services including the appropriate technologies and processes to be used for production and distribution as well as the information, communication and control links to operationalise the technology.

Figure 2.7: The adaptive cycle



Source: Miles, R.E. & Snow, C.C., (2003), p. 24

The *administrative* problem relates to determining the organisational structure and processes of formulating and implementing firm policy to enable the organisation to evolve. The current research is focused on the administrative dimension of the typology as it deals with strategic leadership (Thomas and Ramaswamy, 1996).

Based on Miles and Snow's (1978, 1994, 2003) observed pattern of strategic decisions and behaviour, consistent with Mintzberg's (1976, 1990) concept of strategy as a stream of decisions in a pattern of actions, four archetypes of organisational adaptation were developed. Each type has its own strategy for responding to the environment and particular configuration of technology, structure and processes, which is consistent with the strategy (Miles and Snow, 2003). Conant *et al.* (1990) summarised 11 key dimensions for the four types in Table 2.6.

Table 2.6: Dimensions of the Miles and Snow model

Adaptive Cycle Components	**Dimensions**	**Strategic Types**			
		Defenders	*Prospectors*	*Analysers*	*Reactors*
Entrepreneurial problems and solutions	*Product-market domain*	Narrow and carefully focused	Broad and continuously expanding	Segmented and carefully adjusted	Uneven and transient
	Success posture	Prominence in 'their' product market(s)	Active initiation of change	Calculated followers of change	Opportunistic thrusts and coping
	Surveillance	Domain dominated and cautious/strong organisational monitoring	Market and environmentally oriented/ aggressive search	Competitive oriented and thorough	Sporadic and issue dominated
	Growth	Cautious penetration and advances in productivity	Enacting product market development and diversification	Assertive penetration and careful product market development	Hasty change
Engineering problems and solution	*Technological goal*	Cost-efficiencies	Flexibility and innovation	Technological synergism	Project development and completion
	Technological breadth	Focal, core technology/basic expertise	Multiple technologies- "pushing the edge"	Interrelated technologies- "at the edge"	Shifting technological applications/ fluidity
	Technological buffers	Standardisation, maintenance programmes	Technical personnel skills/diversity	Incrementalism and synergism	Ability to experiment and 'rig' solutions
Administrative problems and solutions	*Dominant coalition*	Finance and production	Marketing and R&D	Planning staffs	Trouble-shooters
	Planning	Inside/out control dominated	Problem and opportunity finding/ campaign (program) perspective	Comprehensive with incremental changes	Crises oriented and disjointed
	Structure	Functional/line authority	Product and/or market centred	Staff dominated/ matrix oriented	Tight formal authority/loose operating design
	Control	Centralised and formal/ financially anchored	Market performance/ sales volumes	Multiple methods/careful risk calculations sales contributions	Avoid problems/ handle problems... remain solvent

Source: Conant *et al.* (1990), p. 367

The following is a summary of the four strategic types (Miles and Snow, 2003).

Defenders are organisations with narrow product-market domains. Top managers in this type of organisation are experts in their limited area of operation but do not search outside their domains for new opportunities. As a result of this narrow focus, these organisations seldom need to make major adjustments in their technology, structure or methods of operation. Instead, they devote primary attention to improving efficiency of their existing operations.
In contrast, *prospectors* continually search for market opportunities, regularly experimenting with potential responses to emerging environmental trends. Prospectors are creators of change and uncertainty to which their competitors must respond. However, because of strong concern for product and market innovation, they are not completely efficient.

Defenders and prospectors are at opposite ends of a continuum of adjustment strategies; *Analysers* are in the middle. *Analysers* operate in two types of product-market domains, one relatively stable the other changing. In their stable areas, these organisations operate routinely and efficiently through the use of formalised structures and processes. In their more turbulent areas, top managers watch their competitors closely for ideas and then rapidly adopt those which appear to be the most promising and as such are fast followers (Miles and Snow, 1994). *Reactors* are organisations in which top management frequently perceive change and uncertainty occurring in their organisational environments but are unable to respond effectively. Because this type lacks a consistent strategy-structure relationship, it seldom makes adjustment of any sort until forced to do so by environmental pressures. Reactors are 'misfits' equivalent to Porter's 'stuck in the middle' (Ketchen, 2003).

2.5.5.1 Validity and reliability of the typology

Miles and Snow's (1978, 1994, 2003) typology has been extensively scrutinised (e.g. Conant *et al.*, 1990; Hambrick, 1983; Oosthuizen, 1997; Shortell and Zajac, 1990; Smith *et al.*, 1986; Snow and Hrebiniak, 1980; Zahra and Pearce, 1990) with no fundamental issues arising to challenge the basic validity of the typology.

Zahra and Pearce (1990) have raised concerns over the method different studies have used to classify firms into different strategic types (see section 4.2.2 for a thorough discussion of classification). Smith *et al.* (1986) are in the minority in their criticism of the type based on their study of 47 US CEOs and top-level managers of electronic manufacturing firms using semi-structured interviews for typing and a 4-cluster method for analysing the results. They found inconsistencies between their findings and theory regarding the defender type and found few differences between the defender and reactor types which left them surmising that the typology was perhaps capturing different stages of strategy development rather than strategic types. However, their use of semi-structured interviews for typing and the cluster method for analysing is extremely rare and not used in this study (see section 4.5.4 for a discussion of statistical analytical techniques).

Conant *et al.'s* (1990) improvements in operationalising the Miles and Snow types (see section 4.2.2 for a thorough discussion) appear to address previous concerns over typing organisations' strategies. Moreover, over 50 studies have operationalised the Miles and Snow method and none have reported difficulty with reliability (Truch, 2001). The apparently most recent evaluation of the strategic types and their relevance was undertaken in South Africa based on 211 chief executives of manufacturing organisations. The results of the assessment that included an in-depth literature scan of the Miles and Snow framework as well as an

empirical survey found no fundamental issues arising to challenge the basic validity of the typology (Oosthuizen, 1997).

2.5.6 Management styles and the Miles and Snow Typologies

Despite the research done on the structural and environmental aspects of the strategic types, a gap in the research exists concerning the managerial attributes of the strategic types, which this research seeks to address. Zahra and Pearce (1990) observed, *"Despite the attention given to the administrative dimension of the [Miles and Snow] typology, the role of the strategist remains unknown...to date, CEO personality, cognition and decision-making styles have escaped through examinations in studying the typology"* (p. 763).

Executive demographic factors such as functional background and its relationship with the Miles and Snow (1978, 1994, 2003) typologies have been researched (e.g. Chaganti, Sambharya, 1987), although Thomas *et al.* (1991) and Thomas and Ramaswamy (1996) have researched the executive characteristics of the typologies most extensively. It is therefore worth reviewing the conceptual aspects of their research (operational issues will be looked at separately in the Methodology chapter). Thomas and Ramaswamy (1996) in a follow-up to their study of performance impact of strategy-manager coalignment (Thomas *et al.*, 1991), researched ideal-type management styles of the Miles and Snow typologies. Fortune 500 companies in electronics, chemicals and petroleum refining sectors (269) were categorised into 2 Miles and Snow strategic typologies (Defenders and Prospectors), managerial characteristics were measured and performance compared for alignment to ideal types. They have made a significant contribution by verifying that:

i. Organisations pursuing distinctly dissimilar strategies (Defenders and Prospectors) were led by managers possessing distinctly dissimilar attributes,

ii. The strategy-manager match had a positive influence on performance, and a greater impact on performance than firm age, size, and industry membership.

Firstly, Thomas and Ramaswamy (1996) tested Miles and Snow's contention that prospectors and defenders would be led by management teams with different profiles of skills and attributes. Thomas and Ramaswamy (1996) assert that organisations that possess a greater propensity towards risk and innovation, features associated with prospectors, are typically led by younger managers with more formal education.

Following the descriptions of Miles and Snow (1978), Thomas and Ramaswamy (1996) hypothesise managerial characteristics expected from the Defender and Prospector profiles[10]. In their studies *innovativeness* and *risk-taking* were measured by age; younger managers are associated with these characteristics, whilst older managers are associated with risk-aversion and being conservative. Similarly, the number of years of formal education was used as a measure of *open-mindedness* and *creativity.* Based on previous studies that found better educated executives are more receptive to new ideas and associated with innovative organisations, innovative organisations are expected to have more top executives with higher levels of education.

[10] Prospector firms compete primarily on the basis of new product introduction and market development and their managerial ranks tend to have a larger proportion of externally oriented, output specialisations. Risk and innovation are associated with prospectors, and therefore are typically led by younger managers with more formal education. Managers of internally focused defenders are expected to have throughput-orientated skills such as engineering and accounting. Since these firms emphasise cost control, experience in the internal aspects of the firm is valued and hence the promotion from within approach (ibid., p. 252).

The theoretical linkages with the Miles and Snow types have been established; however, their use of surrogate variables is problematic (see section 2.1.3.1 on the use of surrogate variables for researching executive characteristics). There is a clear need for further research that goes beyond demographic variables (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991). This current research is aimed at addressing the surrogate variable problem by examining executives' values. By doing so, this research overcomes a gap in the strategic leadership domain highlighted by Zahra and Pearce (1990, p. 763): *"...To understand organisational adaptation research must examine the values, aspirations and styles of the CEO and senior executives. Only then a comprehensive picture of strategic choices and process can be developed."*

2.5.7 Strategic conceptual framework summary

The conceptual framework for this study draws from Hambrick and Mason's (1984) upper echelon theory, which is an organisational model of strategic decisions. Finkelstein and Hambrick's (1996) proposition that executive values are reflected in the choices they make is an overarching motivation for this research.

Following from studies of this kind, strategy is summarised as a configured pattern or stream of decisions and actions that forms the fundamental strategic positioning of the business (Mintzberg *et. al.* 1998; Mintzberg and Lampal, 1990). Miles and Snow (1978, 1994, 2003) have suggested a limited set of strategic types exist that encompass specific patterns of strategy, structure and processes. Strategic orientation is conceptualised in the context of the Miles and Snow typologies of prospector, defender, analyser and reactor. Strategic orientation

will be operationalised through the use of instruments to capture these typologies, which will be discussed in the Methodology chapter.

The management-strategy match or co-alignment refers to the fit or consistency of the ideal typologies of executive values with the ideal typologies of strategic orientation (Finkelstein and Hambrick, 1996; Miles and Snow; 1994; Thomas and Ramaswamy, 1996). This fit includes owner/managers, senior managers and middle managers with varying degrees of influence on strategic decisions in their organisation.

In the final section of the literature review, executive values will be discussed.

2.6 Executive values in management research

This section presents an overview of executive values and how they are understood in the management literature. They are defined and their key elements discussed. The conceptual framework of executive value orientation is explained, different perspectives on values instruments and their dimensions are offered and the structure of executive values orientation is given.

2.6.1 Executive values in management research

Even though the concept of values has been established since the Ten Commandments and Aristotle's and Socrates' inquiry into virtue, its usage in current terminology did not appear until the late 19th century (1877) by Nietzsche (Hall, 1997). The building of a foundation for its understanding in the management literature occurred in the post-war era thanks to theorists

such as Allport (1951), Kluckholn (1951), Maslow (1970), England, (1967) and Rokeach (1973; 1979). Research into managerial values in the management literature is even more recent. Learned *et al.* (1965) and Guth and Taguri (1965) highlighted it as a business issue, Peters' and Waterman's (1982) *In Search of Excellence* renewed interest in the topic. In the 1980's, Hambrick and Mason's (1984) upper echelon theory opened up a research stream in the area of managerial perception and strategy.

2.6.2 Definition of personal and managerial values

Values, as a research variable, is concerned with the relationship between values, beliefs and behaviour, not as an ethical construct (Becker and Connor, 1986). The confusion between values research and ethical issues dealing with moral concerns such as right and wrong, or 'doing the right thing' is linked to the historical tradition of when 'values' were synonymous with 'virtue', a narrowly proscribed set of qualities of human and leadership excellence (Hall, 1997). Managerial values are those that pertain to the individual, the manager or executive (Bourne, 1999). Defining a human value is one the biggest challenges of values research. *"The most common, and probably most serious, problems encountered in the study of human values is definitional"* (Becker and Conner, 1986, p. 11). Nevertheless, there is more convergence than divergence amongst the prominent values theorists (Becker and Conner, 1986; England, 1967; Feather, 1988; Guth and Taguri, 1965; Hambrick and Mason, 1984; Maslow, 1970; 1971; Rokeach, 1973, 1979). Rokeach (1973) explains, *"A value is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence"* (p. 5). He differentiates between instrumental (means) and terminal (ends) values. Instrumental values are modes of conduct and can either be moral, such as honesty, or competency-based,

e.g. logical. Terminal values are either intrapersonal (e.g. peace of mind), or interpersonal (e.g. brotherhood). Rokeach's distinction between means and ends values is criticised by Kitwood and Smithers (1975) for failing to distinguish between values pertaining to obligation (ought) and those concerning desires (want). Becker and Conner (1986) emphasise and redefine the term 'terminal' with 'global'. Their definition of values includes, *"...global beliefs about desirable end-states; these in turn underlie attitudinal and behavioural processes.... If they [values] are to have any useful meaning...values need to be operationalised as a desirable mode of conduct or end-states of existence underlying attitudes and behaviour"* (p.4). Similarly, Guteman (1982) eschews the instrumental-terminal distinction and defines values as desirable end-states of existence. Hambrick and Brandon's (1988) definition also emphasises values as end-states, *"...a broad and relatively enduring preference for some state of affairs"* (p. 5). Hofstede's (1980) definition is very similar, *"a broad tendency to prefer certain states of affairs over others"* (p. 19). Whilst definitions differ, there is broad understanding of the key elements of values as summarised in Table 2.7.

This table covers both values at the personal and corporate level. The literature on corporate culture frequently places values at the core of understanding of the nature of corporate culture (e.g. Schein, 1992). However, in looking at values as a corporate phenomenon it is important to acknowledge that it is difficult to determine the relationship between values and culture; there is a far more complex dynamic underpinning the nature of an organisation's culture (e.g. Goffee and Jones, 1996; 1998). For some the dynamic is explained, in part, by the interaction between the executives' values (typically the CEO) and those of the employees (Waldrop, 1996). Indeed, Bourne and Jenkins (2003) presented evidence to support this assertion. However, they drew the distinction between espoused and enacted values already raised by Schein, 1992). This is explored further in 2.6.2.1 below.

In reviewing Table 2.7 the commonality between the attributes of value and those encountered in the corporate culture literature is notable. The focus of this research, however, is on the elements and attributes at the level of personal values. The interaction with the corporate culture is not explored at this stage, but forms an aspect of the discussion of the findings of chapter 6.

2.6.2.1 Enacted versus espoused values

England (1967) distinguishes between *operative*, *intended* and *adopted* values to 'get at' enacted as opposed to espoused values. *Operative* values have the greatest influence on behaviour whilst *adopted* and *intended* values are those that may be professed but do not directly influence behaviour to any great degree. Adopted values are situationally induced in that they have been observed as being significant in the manager's organisational experience but which he/she finds difficult to internalise. In this case, a manager recognises that the value is important to 'get on' in the organisation, but does not subscribe to it. Intended values are socio-culturally induced as cultural norms but are not espoused by the organisation and do not fit a manager's organisational experience.

Table 2.7 Elements and Attributes of Values

Value element	Attribute	Literature
Preferences	Values are concerned with choices or alternatives	Jacob *et al.*, 1962
	Principles for ordering consequences or alternatives according to preferences	Cyert and March, 1963; Hambrick and Mason, 1984
	Preferences for courses of action and organisational outcomes	Beyer, 1981; Hage and Dewar, 1973
	A concept of the desirable that influences the selection of available modes, means and ends of action	Guth and Taguri, 1965
	Desired end states	Rokeach, 1973; Becker and Connor, 1986
Endurance	Values are enduring beliefs, ideals maintained in all circumstances	Rokeach, 1973
	An enduring preference for some state of affairs	Hambrick and Brandon, 1988
Guides	Values are determined as guides to behaviour, action and outcomes	Lewin, 1944; Rokeach, 1968; Allport, 1960
	Modes of conduct	Becker and Conner, 1986
	Standards against which evaluations and judgements are made	Williams, 1968
	A guidance system	Guth and Taguri, 1965
Core	Core of personality and influences all other characteristics: attitudes, evaluations, judgements, decisions, personal commitments and business goals	Feather, 1988; England 1967
Core (corporate)	Guiding principles desired by the leadership, an organisation's essential and enduring tenets - not to be confused with specific cultural or operating practices.	Collins and Porras, 1996
Deep seated	Values are centrally held beliefs	Rokeach, 1968; Lessig, 1976
Abstract	Values are abstract or ambiguous concepts; an abstract structure of a general concept	Feather, 1988; Lessig, 1976; Eden *et al.*, 1979
Hierarchical	Personal values are organised into hierarchical systems; each person has dominant values that are more important than others	Graves, 1974; Hambrick and Brandon, 1988; Maslow, 1970; Rokeach, 1973; Schwartz, 1992; Motlach and Woodfin, 1993
Universal	A number of values exist in every human and societies differ only in their pattern across groups of respondents	Williams, 1979; Rokeach, 1973, 1979; Feather, 1988; Baker, 1996.
Needs based	Values are a gratification of an underlying need	Maslow, 1970
	Values are 'internalised interpretations' or 'cognitive representations' of (socially desirable ways to fulfil) human needs	Rokeach, 1973, 1979; Meglino and Ravlin, 1998

This research is aimed at capturing a manager's operative personal values. Some key elements of values are worth highlighting for their conceptual contribution to this research.

2.6.3 Executive values orientation: value systems and underlying needs

Value system

Most value theorists agree that a value system exists for each person and is more important to understand than a single value (Hambrick and Brandon, 1988; Rokeach, 1979; Schwartz, 1996). Schwartz (1996, p. 1) offers 3 reasons why:

i. The reliability of any single value is low,
ii. Values not included in a study may be equally or more meaningfully related to the phenomenon in question than those studied if there is an absence of a comprehensive set of values or a selection of target values,
iii. Single value approaches ignore the assumption that there are trade-offs among competing values.

Hambrick and Mason (1984) point out that, "*...values cannot meaningfully be examined in isolation. As each value is learned or modified, it becomes integrated into an overall system of values in which each value has its own amount of priority...A hierarchy, or value system, thus exists for each person*" (p. 6). According to Motlach and Woodfin (1993, p. 10), "*Each value system level represents interrelationships between perceived challenges of existence and mechanisms for coping with these challenges, a paradigm or 'belief structure' and a set of thinking types.... Groups at different value system levels see the world differently, perceive different problems, and employ different coping strategies. They differ in their basic belief structures and thought processes, and in the manner in which they read and interpret environmental symbols, cognitively organise information and interpret the landscape.*" The implication of this for strategic leadership theory is that different managers will interpret the

same situation in different ways depending on their value system. Managers matter because they perceive things differently.

In a study of 224 owner/managers of small (100 employees or less) furniture manufacturers in New South Wales, Australia, Kotey and Meredith (1997) used a values systems approach to categorise owner/manager's values into 'entrepreneurial' and 'conservative' personal values. Categorisation was based on the decision-rule that owner/managers rate either above or below average on at least 50% of the personal values hypothesised to be either entrepreneurial or conservative. The hypothesised entrepreneurial values included: *ambition, achievement, reliability, responsibility, hard work, competence, optimism, innovation, aggressiveness, honesty, creativity, social recognition and growth.* 'Conservatives' were those who rated below the overall average of entrepreneurial values and above average on values of: *equality, affection, compassion, and social protection.* Overall, on a one to five scale, the values with the highest means included *honesty* (4.87), *trust* (4.8), *energy* (4.74), *responsibility* (4.7), *hard work* (4.7), *competence* (4.62), *achievement* (4.61), *loyalty* (4.6) and *optimism* (4.58). The cluster of Owner/managers who reported above average company performance, pursuing 'proactive' strategies and having 'entrepreneurial' values rated above the overall average on the values: ***ambition, power, loyalty, competence, competition, personal growth, innovation, responsibility, hard work, and optimism.*** At the other extreme was another cluster of owner/managers who reported below average company performance, following 'reactive' strategies and termed 'conservatives' because they rated below average on the values: ***achievement, ambition, loyalty, trust, competence, personal growth, innovation, honesty, responsibility, hard work and optimism.*** Two other clusters exhibited a combination of and the midpoint between 'conservative' and 'entrepreneurial' values, respectively.

Needs-based

A major contribution to the conceptualisation of values was made by Maslow (1970) as part of his theory on motivation and his definition of values as 'a gratification of a need' (see Table 2.7). He was the first to postulate that values are driven by underlying needs, which is now echoed by a variety of theorists. Rokeach's (1979) definition of values as 'cognitive representations' of internal needs and Meglino and Ravlin's (1998) definition of values as 'internalised interpretations' of socially desirable ways to fulfil human needs spring from Maslow's theory. Rokeach (1979) confirms Maslow's understanding of values as a gratification or satisfaction of a need, *"Values, our theoretical orientation would predict, should enter into motivation in two main ways: first by defining the* ***gratifications*** *which establish and reinforce motives; second by defining the* ***sources*** *of gratification"* (original author's emphasis) (p. 24). Maslow (1970) states that underlying needs do not instigate drives of behaviour but rather help us understand the motives, goals or purpose behind patterns of behaviour.

The implication of Maslow's (1970) theory to values is that security-based values satisfy sustenance-driven needs, esteem-based values satisfy outer-directed[11] needs and developmental, leading-edge values satisfy inner directed[12] needs. This provides the basis of executive values orientation, which will be explored in the following section on values instruments.

[11] Self esteem comes from outside the self/benchmarking against others, e.g. 'keeping up with the Jones'
[12] Esteem comes from achieving one's potential, becoming more of oneself

Hierarchy

Although Kluckholn (1951) believes values may be held independently of each other, most theorists and researchers believe that a person's values are hierarchically organised according to their relative importance to the individual (Bourne and Jenkins, 2003; Graves, 1974; Maslow, 1970, Rokeach, 1979; Meglino and Ravlin, 1998; Schwartz, 1996). Theorists such as Hambrick and Brandon (1988) use the values hierarchy concept to explain prioritisation: *"At the top of each person's system are a small handful of dominant values of paramount importance"* (p. 6). As explained by Rokeach (1979), *"Value hierarchies or priorities are organisations of values enabling us to choose between alternative goals and actions, and enabling us to resolve conflict"* (p.49).

In a qualitative study of 27 senior managers on the relationship between personal and corporate values, Bourne and Jenkins (2003) found that managers held different value priorities. They also found that the corporate values espoused by the managers were a reflection of their own personal values rather than a broad framework of shared values, thus confirming the view that values act as a perceptual filter.

Universal

Values are believed to be universally held across people and cultures (Williams, 1979; Rokeach, 1979). According to Williams (1979, pp. 17-18), *"In every full-fledged society, every one of Rokeach's 36 values will appear - as will each of the values or themes listed by C. Kluckholn, F. Kluckholn, R.F. Bales and Couch.... Yet as total systems, societies differ radically in their patterns of values."* Values are therefore understood to be determined by an individual's development within a culture. Following the theory, this research has used a universal list of values across cultures detailed in the methodology chapter.

2.6.4 Value dimensions

A variety of value schemes attempting to explain and measure executive values have been developed. Hambrick and Brandon (1988) summarise a set of significant executive value dimensions (see Table 2.8). This table has been adopted to show their own executive values dimension (EDV) maps onto the earlier literature.

Table 2.8: A Distilled Set of Significant Executive Value Dimensions

Allport,Vernon, Lindzey (1960)	England (1967)	Rokeach (1973)	Hofstede (1980)	Hambrick and Brandon (1988)
Social	Social Equality Social Welfare Liberalism Equality Compassion Employee Welfare	Personal vs. Social World at Peace National Security Equality	Individualism (-)	Collectivism
	Personal Loyalty Loyalty Trust Obedience Honor Dignity	Inner vs. Other-Directed Obedient Polite Helpful Clean	Power Distance	Duty
Theoretical	Irrational Behavior (-) Conflict Emotions Prejudice	Competence vs. Morality Intellectual Logical Capable	Masculinity	Rationality
	Entrepreneurialism Change Risk Competition		Uncertainty Avoidance (-)	Novelty
Economic	Extrinsic Rewards Money Property	Delayed vs. Immediate Gratification Pleasure A Comfortable Life An Exciting Life		Materialism
Political	Power Distance	Personal Influence Prestige Power Influence		Power

Source: Adapted from Hambrick and Brandon (1988), p.13

In developing their values scheme, Hambrick and Brandon (1988) hypothesised how these six value dimensions might be associated with specific organisational actions and attributes; these

hypothesised relationships are shown in Table 2.9. As Table 2.9 illustrates, there is a lack of consensus amongst value theorists about the precise hierarchical structure of values.

Table 2.9: Some Hypothesised Links between Executive Values and Actions

	Organizational Actions		**Attributes**		
Executive Value	*Strategy*	*Structure*	*Information/ Decision Processes*	*Rewards*	*People*
Collectivism	Significant corporate philanthropy; Related diversification with many inter-unit flows	Flat structure; many committees	Participative decision processes	Rewards heavily tied to overall firm performance	Promote-from-within policies; lifetime employment
Duty	Long-term vertical relationships (suppliers and customers); little contract litigation against firm		Open, two-way communication channels; Well-developed audit and control systems	Executive perquisites/ bonuses tightly tied to market norms	Long tenures; few layoffs
Rationality	Incremental strategies based primarily on "calculable" factors (e.g., prices, costs, capacities)	Highly formalized structure	Comprehensive/ analytic processes	Highly formalized pay systems (e.g., Hay); emphasis on quantitative performance measures)	Routinized personnel policies (e.g., selection, evaluation, advancement); large personnel staffs
Novelty	Prospecting (many product-market initiatives)	Frequent re-organizations; structural ambiguity (matrix, etc.)	Spontaneity; decision- making outside formal channels and processes	Frequent changes in reward system; large incentives for innovation	Heterogeneous management cadre; limited pressure for conformity
Materialism	Portfolio churning (frequent acquisitions and divestitures)	Small staffs; low administrative intensity		Extraordinary executive pay and perks	Opportunistic hiring and firing of key executives
Power		Highly centralized	Tight control of information and resources at top of organization; top-down decision-making	Subjective criteria for awarding (large) incentives	Pliant, supplicant subordinates

Source: Hambrick and Brandon (1988), p.23

Whilst value theorists such as Schwartz (1992, 1996) discuss 'motivational domains' and Graves (1974) discusses the 'existential ladder' of different psychological stages of existence, Abraham Maslow (1970) was the first, clearest and most enduring values theorist to propose how values are structured. The pre-eminent values instruments are based on Maslow's Hierarchy of Needs: Rokeach's Value Survey (RVS, 1973), Kahle's List of Values (LoV;

1988) and the proprietary instruments of Stanford Research International's (SRI) Values and Lifestyles (VALS) (Baker, 1996), making it the de facto 'industry standard' definition of the structure of values. The implications of Maslow's theory on the structure of values are:

i. We all share a universal set of underlying needs but each one of us has a dominant set of needs and values,
ii. When one set of underlying needs is satisfied they are no longer needs; a new set of needs and values emerges.

Underlying needs and values arrange themselves in hierarchies of potency, from strongest (sustenance-driven) to weakest (inner directed). Rokeach (1979, p. 131) endorses the dynamics of Maslow's theory concerning needs satisfaction: *"Less concern over security-related values should, in turn, pave the way for the emergence of an increased concern with higher-order values"* (Maslow, 1954) (Rokeach's reference). Also, Rokeach (1979) substantiates the notion of values being structured based on underlying needs according to potency. In trying to explain why in the US between 1968-71 there was a statistically significant increase in the importance attached to 'a world of beauty' value amongst white but not black respondents Rokeach (1979) reasons, *"This finding becomes more understandable perhaps in the context of Maslow's theory of self actualization (Maslow, 1954). Pollution of the environment is not likely to become a salient issue or to affect values when there are more pressing needs and values concerning safety and security"* (p. 144). Following the theory, this current research will use inner-directed, outer-directed and sustenance driven as categories of executive values orientation that is examined in the next section on value instruments.

2.6.5 Operationalising values

A major gap in values research is consensus around valid and reliable instruments to measure personal values (Baker and Jenkins, 1993). Sturdivant *et al.* (1985) argues values have little meaning without a construct to define rather precisely the value or set of values deemed relevant, and therefore, finding a reliable and valid instrument to measure values is key to executive values research. The two perspectives towards measuring values in management are (Baker, 1996):

i. a pre-existing inventory/list of values for quantitative analysis, called the 'Macro' approach, and
ii. A qualitative based 'laddering' interview technique ('Micro').

This research is concerned with the Macro perspective that is almost exclusively used in management research, although for a notable exception see Bourne and Jenkins (2003).

Research into executive values began in the 1950's (Allport, 1951) and one values instrument tested on business executives is the Allport-Vernon-Lindsay (A-V-L) (1960) Study of Values. Six major values were believed to be held by individuals in varying degrees. The scales were:

Theoretical:	The dominant interest of the theoretical man is the discovery of truth.
Economic:	The economic man is characteristically interested in what is useful.
Aesthetic:	The aesthetic man sees his highest value in form and harmony.
Social:	The highest value for this type is love of people.
Political:	The political man is interested in Power.

Religious: The highest value of the religious man may be called unity.

Guth and Taguri (1965) used the A-V-L scheme for their study of business executives, and found that economic values were rated the highest. Social values were rated the lowest. Groups of scientists and research managers were also studied with both groups scoring high on the theoretical and lowest on the social. However, the A-V-L instrument has been severely criticised as a dubious predictor of behaviour and naive for confusing 'values' with 'virtues' by only looking at positive values (Becker and Conner, 1986). It also suffers from being a single item instrument that has been criticised (Schwartz, 1996).

The opportunity of uncovering the cognitive path between personal values and buyer behaviour explains why values instruments are most advanced in the field of consumer behaviour (Baker, 1996). Regrettably, Baker and Jenkins (1993) observe there is no consensus on the most effective values inventory and researchers have not yet settled on a definitive instrument to objectively measure a respondent's values. Rokeach's value survey (RVS) has been operationalised by researchers the most, although not in the way it was originally intended. Most have adopted a scaling or rating technique as opposed to Rokeach's (1973) prescribed ranking method (Baker, 1996). For a discussion of rating versus ranking methods see the section on executive values in the methodology section below. Although many instruments are in existence, the most comprehensive measure appears to be Kotey and Meredith's (1997) values instrument which is a hybrid of England's (1975) and Rokeach's (1975) values instruments that has 28 items and has the advantages of having high reliability (Cronbach $\alpha = .83$) and being operationalised in a management context.

2.6.6 Executive values conceptual framework summary

The conceptual framework draws from Maslow (1970) and Kotey and Meredith (1997) and is informed by Rokeach's (1973, 1979) and Hambrick and Brandon (1988). Executive values are summarised as personally held deep-seated beliefs that give insight into people's' underlying needs and motivations. According to Maslow (1970), underlying needs drive the structure of values: inner, outer and sustenance-driven needs. Maslow's hierarchy of needs theory, the root of the values instruments, will be used to categorise executive value orientation.

The final section of this chapter will consider some questions that arise from the literature.

2.7 Conclusions and issues arising from the literature

The research on behavioural aspects of strategic decisions has led theorists (e.g. Hambrick and Mason, 1984; Hitt and Tyler, 1991) to conclude that an accurate understanding of strategic decisions requires consideration of the effects of executives' personal characteristics. Demographic variables have been used as surrogate measures of executive characteristics, which has been severely criticised (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991). Executives personal values have been identified as a key determinant affecting strategic decision-making in organisations, yet it has not been adequately researched empirically (Andrews 1987; Hambrick and Brandon, 1988; Learned *et al.*, 1965; Mintzberg *et al.*, 2003; Pant and Larchman, 1998; Sturdivant *et al.*, 1985; Zahra and Pearce, 1990). Finkelstein and Hambrick (1996) recognised the research void that exists: *"Executive values is an open field for research. Even though values are undoubtedly important factors in executive choice, they have not been the focus of much systemic study"* (p. 48). Concerning the role of executive values in strategic orientation, Zahra and Pearce (1990) identified the

values gap in the research and its contribution: *"Despite the attention given to the administrative dimension of the [Miles and Snow] typology, the role of the strategist remains unknown...to date, CEO personality, cognition and decision-making styles have escaped through examinations in studying the typology...To understand organisational adaptation research must examine the values, aspirations and styles of the CEO and senior executives. Only then a comprehensive picture of strategic choices and process can be developed"* (p. 763).

Whilst the investigation of executive values in relation to strategy is a major research opportunity, the measurement of executive values is notoriously difficult. Different theorists have used different values instruments making comparison impossible. Moreover, there is no consensus of how individual values should be grouped to provide insight into one's value system. In an attempt to improve Kotey and Meredith's (1997) dichotomous approach of 'conservative' and 'entrepreneurial', this research takes a theory-driven approach by using Maslow's (1970) hierarchy of needs theory to attempt to classify executive values in terms of one's *inner directed, outer directed* and *sustenance driven* underlying needs.

The literature review leaves crucial questions unanswered. Can values be measured in a managerial context that provides insights to researchers and practioners? Do executives' values impact their strategic decisions? Do values have a direct effect on performance? If so, which values have the greatest impact on performance? Regarding the association of demographic variables and values in the causal chain of fundamental executive characteristics to organisational outcomes (Finkelstein and Hambrick, 1996), do executive values have a greater impact on performance than managerial characteristics? If so, does it have a greater impact on performance than the 'rational' factors of strategy, firm and industry

characteristics? Concerning the interactive effect of values, does the executive value and strategic orientation alignment impact performance? If so, what strategic postures have the greatest performance impact?

The next chapter will cover hypotheses development and the research model to address these research issues coming from the literature review.

Chapter 3 Research Model and Hypotheses

This chapter introduces the research model and hypotheses. Firstly, the research model is presented before the hypotheses are discussed.

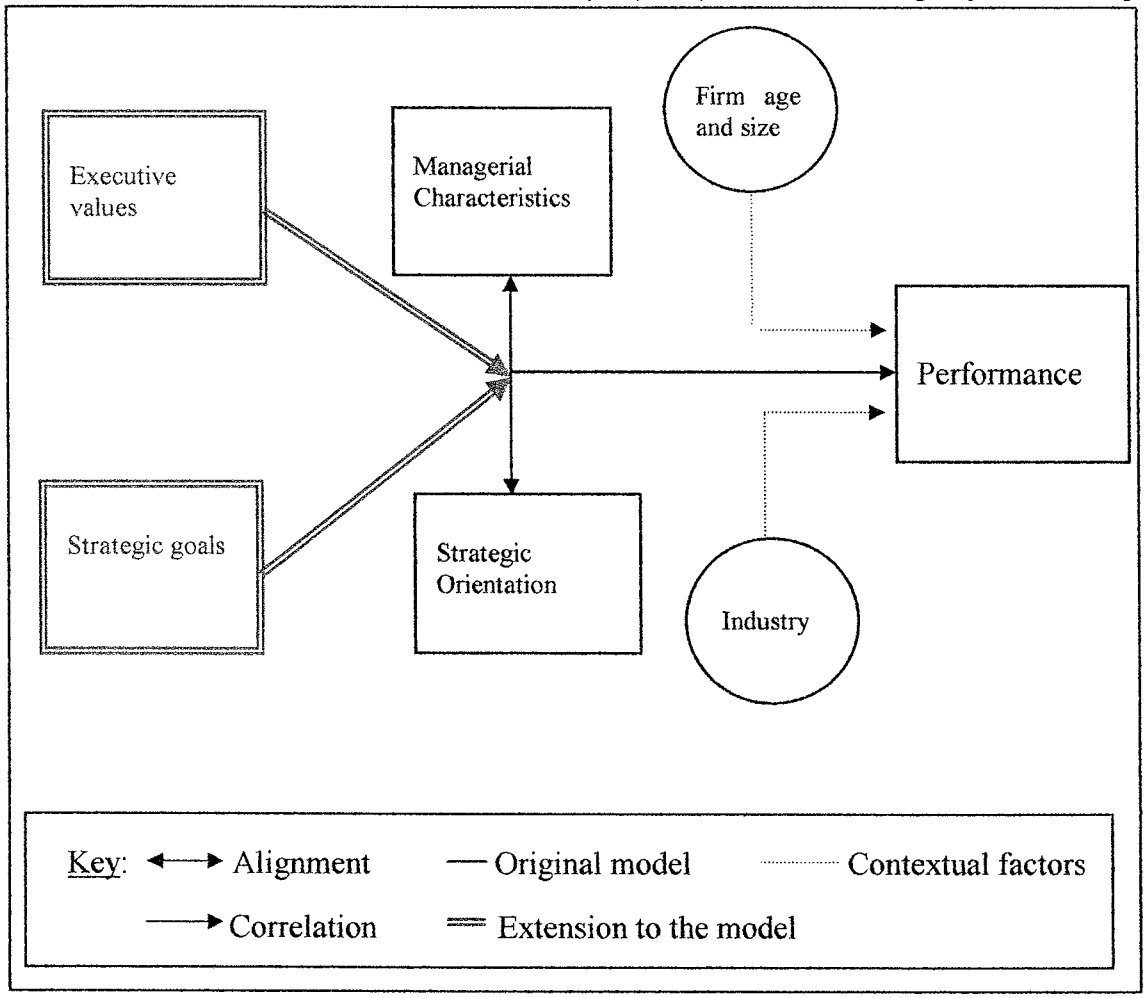
From a review of the literature including Finkelstein and Hambrick's (1997) proposition, "*Executive values are reflected in the choices they make*" (p. 54), it was determined that a need existed to investigate the role of executive values and strategic choice with other factors outlined in Hambrick and Mason's (1984) upper echelons theory. To do this, it was decided to extend Thomas and Ramaswamy's (1996) research which appeared to be the most recent and extensive study on the relationship between strategic orientation, managerial characteristics and its impact on performance.

To overcome the limitations of the study linking demographic characteristics with organisational outcomes (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991) and to address Hambrick and Mason's (1984) concern that demographic indicators of managerial characteristics may contain more 'noise' than values, the current research focuses on the relationship between *strategic orientation*, *executive values* and *goals* and their impact on *performance*. The current research extends Thomas and Ramaswamy's (1996) research by:

i. Using primary rather than secondary data,
ii. Expanding the number of Miles and Snow (1978,1994, 2003) typologies tested from two (prospectors and defenders) to all four (including analyzers and reactors),
iii. Introducing the new constructs of *executive values* and *goals*,
iv. Extending the *performance* construct to include operational as well as financial measures of performance.

The extension of Thomas and Ramaswamy's (1996) model through the addition of *executive values* and *strategic goals* is illustrated in Figure 3.1.

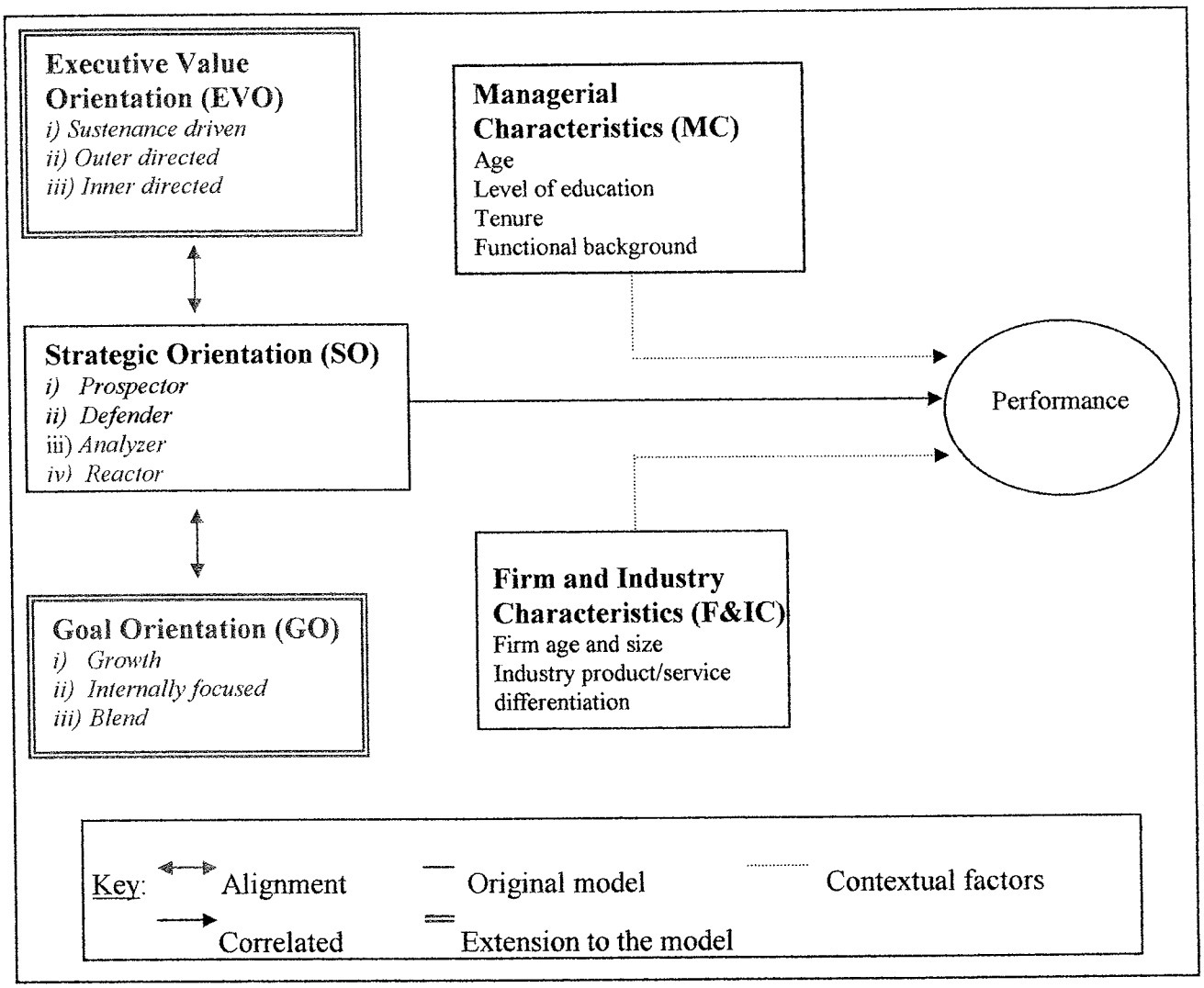
Figure 3.1: Extension to Thomas and Ramaswamy's (1996) Model of Contingency Relationships



Source: Adapted from Thomas and Ramaswamy (1996), p.253

The operationalisation of this extension is shown in Figure 3.2, which highlights the interactive relationships between the key research constructs. Subjects are categorised into sub dimensions of *Executive Values* (Inner directed, Outer directed and Sustenance driven) and *Goals* (growth, internally focused and blend) that are specific 'orientations', which are discussed further in this chapter, the Research Methodology and Analysis chapters.

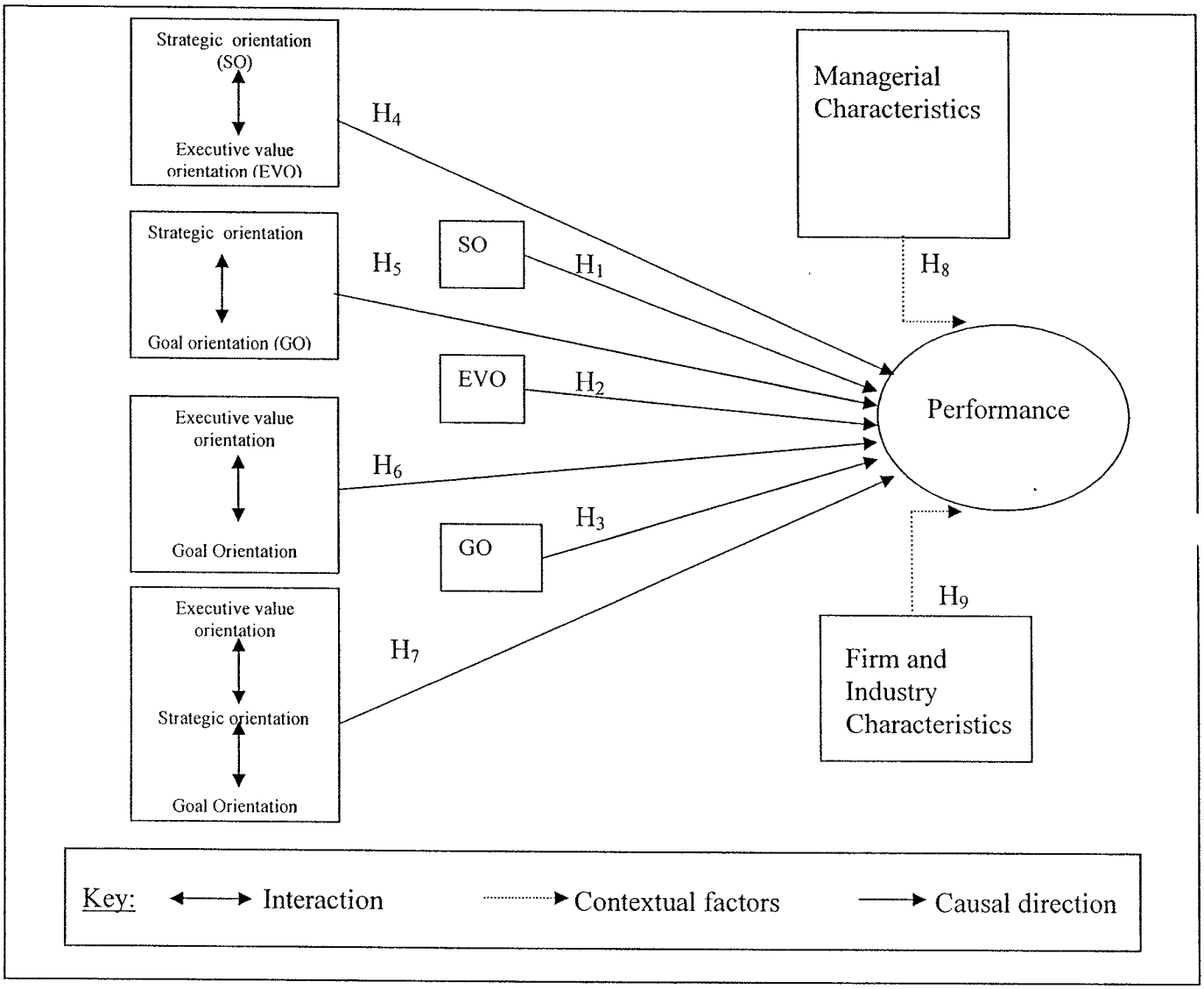
Figure 3.2 Proposed Research Model



3.1 The Research Model and Hypotheses

The proposed model of this study is shown in Figure 3.3. It includes direct and interaction (alignment) effects of the research constructs. The main and interaction effects of *strategic, executive values* and *goal orientation* on *performance* is considered first followed by an investigation into main and interaction effects of the *managerial characteristics* of age, tenure, level of education and functional background (by years of functional experience).

Figure 3.3 Overall Research Model with Main and Interaction Effect



Following from the supposition that demographic variables of managerial characteristics are surrogate variables for executive psychology (Hambrick, 2001) one step forward from values in the causal chain of fundamental executive characteristics to organisational outcomes (Finkelstein and Hambrick, 1996), *managerial characteristics* are classified as contextual variables in the current research. Finally, the main and interaction effects of the *Firm characteristics* of firm age and size (by number of employees) and *industry characteristics* of product/service differentiation are investigated.

The key hypotheses of the current research are summarised as a linear equation:

$$\text{Performance} = b_0 + b_1SO + b_2EVO + b_3GO + b_4SO\&EVO + b_5SO\&GO + b_6EVO\&GO + b_7SO\&EVO\&GO$$

Direct effects

Interactive effects (bivariate) Alignment

Interactive effect (trivariate) Alignment

where b = impact coefficients, SO = *Strategic orientation*, EVO = *Executive value orientation* and GO = *Goal orientation.*

Although other linear equations of a three-factor case exist[11], Fields' (2001) description is chosen for the current research for conceptual clarity.

The hypotheses below are based on literature and previous research, though it is worth noting Leedy's (1997) description of a hypothesis as only a tentative explanation for a phenomenon under investigation, 'a reasonable guess', 'educated conjecture' and a prediction that may or may not be borne out by the data (pp. 6-7).

3.2 Hypotheses

This sub-section covers hypotheses concerning the main effect on performance of strategic, executive values and goal orientation.

[11] Sokal and Rohlf (1981) have an alternative expression of a three factor linear equation: $Y_{ijkl} = \mu + \alpha_i + \beta_j + \gamma_k + (\alpha\beta)_{ij} + (\alpha\gamma)_{ik} + (\beta\gamma)_{jk} + (\alpha\beta\gamma)_{ijk} + \epsilon_{ijkl}$, where μ = the parametric mean of the population; α_i, β_j, γ_k are the fixed treatment effects for the *i*th, *j*th and *k*th groups of treatments A, B, and C, respectively; $(\alpha\beta)_{ij}$, $(\alpha\gamma)_{ik}$, and $(\beta\gamma)_{jk}$ are first-order interaction effects in the subgroup represented by the indicated combinations of the *i*th group of factor A, the *J*th group of factor B, and the *K*th of factor C; $(\alpha\beta\gamma)_{ijk}$ is the second-order interaction effect in the subgroup representing the *i*th, *j*th and *k*th groups factors A,B and C, respectively; and ε_{ijkl} is the error term of the *l*th item in subgroup *ijk*.

3.2.1 Hypotheses of strategic, executive values and goal orientation

3.2.1.1 Strategic orientation

Miles and Snow (1978, 1994, 2003) predict that the three stable strategic types (prospector, defender, and analyzer) perform equally well in any industry and will outperform reactors. Empirical studies have confirmed that the reactor strategy is associated with lower performance than the other stable types of strategies (e.g. Conant *et al.*, 1990; Parnell and Wright, 1993) albeit with qualifications to some findings (Snow and Hrebiniak, 1980)[12]. Based on the assertion that there is a performance impact of strategic orientation, the following hypothesis was developed:

H1a *Strategic orientation will have an impact on performance.*

Whilst some studies have found no significant difference between the performance of the three stable types (e.g. Conant *et al.*, 1990; McCall, 1999) the research evidence is mixed. Despite a variation in results due to different industry contexts and performance measures, prospectors tend to outperform other types, especially in knowledge-based businesses. Namiki's (1989) study of 106 semiconductor manufacturers found prospectors outperformed defenders and analyzers in terms of sales growth and organisational performance. This was supported by Truch's (2001) finding that prospectors significantly outperformed defenders in his sample of 161 IT-related companies that he attributed to first mover advantages over defenders in the knowledge economy. Domicone (1997) found prospectors significantly outperformed all other types in return on investment (ROI), followed by analyzers, defenders and reactors. Parnell and Wright (1993) found revenue growth was significantly higher for prospectors, but the mean ROA for analysers was significantly higher than other business strategies. The notable exception to these studies is Hambrick's (1983) investigation into the

[12] Reactors performed above the mean level of all four strategies and outperformed defenders and prospectors in industries 'protected' by government regulation suggesting the prediction of underperforming reactors is valid for 'competitive' industries but not necessarily for protected ones.

strategic types and performance in different environments based on the Profit Impact of Market Strategies (PIMS) database, which found that analyzers outperformed all other types. The overall research evidence indicates that prospectors outperform all other types, which leads to the hypothesis:

H1b *Prospectors will have a greater impact on performance than other strategic types*

3.2.1.1 Executive values orientation

Kotey and Meredith's (1997) research found that above-average company performance was associated with 'proactive' strategies and entrepreneurial personal values and below-average company performers were associated with 'reactive' strategies and conservative personal values. Executive values classed as 'entrepreneurial' are *innovation, risk-taking,* and *creativity* (Kotey and Meredith, 1997), which in Maslovian terms are Inner directed values. This leads to two hypotheses:

H2a Executive values orientation will have an impact performance

H2b An Inner directed executive value orientation will have the greatest impact on performance

3.2.1.2 Goals orientation

Goals were chosen as a research variable because of their centrality to the Miles and Snow (1978, 1994, 2003) typologies (Zahra, 1987) and strategic decision-making (Eisenhardt and Bourgeois, 1988; Eisenhardt, 1989). Based on theoretical conjecture, the following hypothesis is proposed:

H3a *Goal orientation will have an impact on performance*

Miles and Snow (1978, 1994, 2003) propose that the goal of entrepreneurial companies (prospectors) is growth by expansion of their product-market domain through new product development. In Zahra's (1987) study of 66 US health care organisations, he collected data

from chief administrators and found that prospectors' had growth-oriented goals including *strong competitive position*, *profitability* and *market share*. Based on research, the following hypothesis is proposed:

H3b Growth goal orientation will have the greatest impact on performance

The next section focuses on the interaction effects of *strategic*, *executive values* and *goal orientation.*

3.2.1.3 Strategic and executive value orientation alignment

Following Thomas and Ramaswamy's (1996) finding that the strategy-manager match had a positive impact on performance and values are one step back in the causal chain of fundamental executive characteristics to organisational outcomes (Finkelstein and Hambrick, 1996), the following hypothesis was developed:

H4 Executive values and strategic orientation alignment will have an impact on performance

3.2.1.4 Strategic and goal orientation alignment

Miles and Snow (1978, 1994, 2003) propose that the goal of prospectors is growth by expansion of their product-market domain through new product development. Defenders' goals are efficiency in operations, cost cutting and stability in market relations. Analyzers as an intermediate type between the defenders and prospectors are less clear. Reactors as a residual typology would expect to have no pattern of alignment.

In Zahra's (1987) study of US health care organisations, she found that defenders had internally focused goals[13], prospectors had growth-oriented goals[14] and analyzers[15] and reactors[16] had a mix of goals. Based on theory and research, the following hypothesis was developed:

H5 *Strategic and goal orientation alignment will have an impact on performance*

3.2.1.5 Executive values and goal orientation alignment

Alignment between executive values and organisational goals is a theme in values research and strategy. Bourne (1999) argues that the purpose which lies at the heart of values research in business is to decipher the real goals of the organisation through those that lead them. Values of top managers are reflected in the aims of an enterprise (Steiner, 1969). For owner/managers of small businesses, their values and goals are indistinguishable from the goals of their business (O'Farrell and Hitchins 1988; Bamberger 1983). Based on theoretical conjecture, the following hypothesis is proposed:

H6 *Executive value and goal orientation alignment will have an impact on performance*

3.2.1.6 Strategic, executive values and goal orientation alignment

Finally, combining the last two sets of hypotheses, based on theory one would expect:

H7 *Strategic, executive values and goal orientation alignment will have an impact on Performance*

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[13] *quality of patient care, profitability, employee welfare* and *financial stability goals*

[14] *strong competitive position, profitability* and *market share*

[15] *market share* and *strong competitive position* like prospectors, *financial stability* like defenders and *response to social issue*

[16] Reactors' dominant goal was *financial stability* whilst having prospector-type goals of *profitability, market share growth* and *strong competitive position*

3.2.2 Managerial characteristics

Based on Thomas and Ramaswamy's (1997) findings that managerial characteristics and strategic orientation had an impact on performance, the following hypotheses were developed:

H8a Managerial characteristics will have an impact on performance

H8b Managerial characteristics and strategic orientation will have an impact on performance

3.2.3 Firm and industry characteristics

Following Thomas and Ramaswamy's (1996) finding that managerial characteristics and strategic orientation had a greater impact on performance than firm age, size, and industry membership, the following hypotheses were developed:

H9 Firm characteristics will not have an impact on performance

H10 Industry characteristics will not have an impact on performance

The research model and hypotheses have been presented. The concerns of the next chapter are with the survey methodology. Research and survey instrument design are discussed and an assessment is given on the pilot results leading to post-pilot refinements that precedes a discussion of the current study's population, sampling frame, data collection and analytical techniques.

Chapter 4 Research Methodology

Introduction

In this chapter, the approach to the design of the research to examine the hypotheses and methodology for data collection and analysis are reviewed. The philosophy and approach is discussed followed by the research and survey instrument design. Next, results of the pilot study and post pilot refinements to the model and questionnaire are explained before the population, sampling frame and data collection method are presented.

4.1 Overall Philosophy and Approach

In determining research methodology a key consideration is whether to take a Positivistic or Phenomenological approach (Leedy, 1997). The principle differences between the two paradigms are outlined in Table 4.1.

Table 4.1 Key Features of Positivistic and Phenomenological Paradigms

	Positivist Paradigm	*Phenomenological Paradigm*
Basic beliefs:	The world is external and objective	The world is socially constructed and subjective
	Observer is independent	Observer is part of what is observed
	Science is value-free	Science is driven by human interests
Researchers should:	Focus on facts	Focus on meanings
	Look for causality and fundamental laws	Try to understand what is happening
	Reduce phenomena to simplest elements	Look at the totality of each situation
	Formulate hypotheses and then test them	Develop ideas through induction from data
Preferred methods include:	Operationalisation of concepts so that they can be measured	Using multiple methods to establish different views of phenomena
	Taking large samples	Small sample investigated over time

Source: Easterby-Smith *et al.*, 1996, p. 27

The different approaches are appropriate for different research purposes (Easterby-Smith *et al.*, 1996; Higgs, 1997), and therefore the purpose of the research is a crucial factor in determining the methodological approach. The purpose of this research is to investigate the

performance impact of the executive values and strategic orientation relationship as well as other variables through testing the upper echelon theory (Hambrick and Mason, 1984). According to Leedy (1997), if the purpose of the research is to explain and predict, confirm and validate, to test a theory and the research is outcome oriented, a quantitative approach is more appropriate than a qualitative approach. Quantitative research can be defined as, "*an inquiry into a social or human problem, based on testing a theory composed of variables, measured by numbers, and analyzed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true*" (Creswell, 1994, pp.1-2). The purpose of this research conforms to a Positivistic, quantitative approach.

Consideration of the nature of (executive) values was also an important factor in deciding the approach. In values theory, there are three main schools of thought: the Objectivists, the Subjectivists and the Integrationists (Frondizi, 1971). The Objectivist view values as external to the person, influencing their development and character as a person, which stems from the Ten Commandments and Aristotle's and Socrates' inquiry into virtue (Frondizi, 1971; Hall 1997). The Subjectivist view stems from the Existentialist Movement at the end of the 19th century that understands values as internal to the individual, as the consequence of one's own priorities and choices (Frondizi 1971; Hall, 1997). Expressed in the works of Nietzsche (1887), Sartre (1953) and popularised by Phaedrus in *Zen and the Art of Motorcycle Maintenance* (Persig, 1974) that facts don't exist until values have created them, values are precisely the choosing of significant priorities of our lives. The Integrationist viewpoint is that of modern social science and the view the current research will take, which is that values are not simply and narrowly moral norms or wholly subscribed to by the individual, but motivational sources of human behaviour that underpin the actions of individuals and groups (Parsons and Shils, 1951). Management's concern with behaviour and the measurement of values is at the heart of the Integrationists' view, which is consistent with a Positivistic and quantitative approach (Hall, 1997), and therefore is consistent with the purpose and approach of this research.

A further consideration of the appropriate approach to take was the dominant methodology used in similar research studies. Empirical research done on values and the upper echelons has employed a quantitative approach (e.g. Hage and Dewar, 1973; Sturdivant *et al.*, 1985; Kotey

and Meredith, 1997) as has related strategic leadership research (e.g. Thomas *et al.*, 1991; Thomas and Ramaswamy, 1996). Finally, following a comparable approach to similar studies allows consistency and comparison with previous research.

The Positivist propositions that underpin this research are outlined by Easterby-Smith *et al.*, (1996, p. 23):

i. *Independence* of the observer to what is being observed
ii. *Objectivity* criteria rather than human belief and interest are employed in assessment
iii. *Causality* is the means of explaining causality in human and social behaviour
iv. *Operationalisation* of concepts in a manner that permits measurability
v. *Reductionism* involving a simplification of reality enabling manageable comprehension
vi. *Generalisation* from sufficiently large and representative samples about overall human and social behaviour
vii. *Cross-sectional* analysis facilitating comparison

Equally important to being aware of the propositions underpinning the Positivistic approach is awareness of its limitations. According to Easterby-Smith *et al.* (1996), the Positivistic approach allows the economical and relatively rapid collection of data as well as public scrutiny through replication by other researchers provided that a clear method has been taken. The disadvantages are that the understanding of processes or the significance people attach to actions can be limited and the overall contribution to knowledge can be trivial, such as confirming what is already known. Cross-sectional designs, particularly concerning questionnaire and survey techniques allow large amounts of information to be collected and a number of features describing people and organisations. However, it does not explain *why* the correlations exist and there is difficulty in eliminating all the external factors that could have caused the observed correlation. Finally, there is the problem of induction (Popper, 1959). An idea cannot be regarded as scientific unless it is falsifiable (Remenyi *et al.*, 1998). It is not possible to reach conclusive proof of a scientific truth or law; instead, one should be looking for the evidence to disprove one's hypothesis or existing view (Easterby-Smith, *et al.*, 1996). In practice, however, it may take a paradigm shift to change scientific orthodoxy regardless of

the amount of evidence to the contrary that previously held assumptions are false (Remenyi *et al.*, 1998).

A Positivist approach was adopted in developing a research model based on existing theories and postulating hypotheses that describe the relationship between components of the upper echelon theory reviewed in the literature review section. The model and hypotheses are tested in a questionnaire-based survey discussed in the following section.

4.1.1 Research design: cross-sectional or longitudinal?

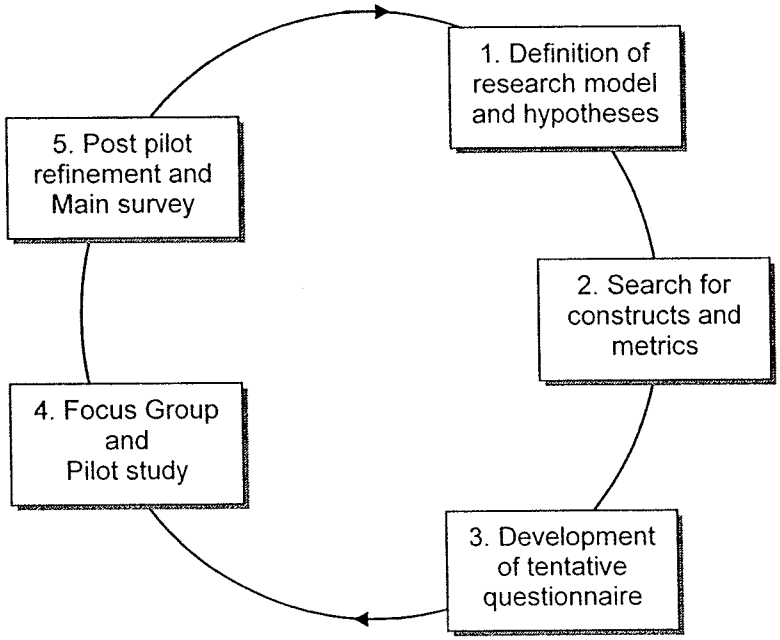
A key issue in research design is whether to sample across a large population or focus on a small number and investigate them over time (Easterby-Smith *et al.*, 1996; Remenyi *et al.*, 1998). Cross sectional research refers to studies that examine how something is done at the time of the research study and generally seeks to understand variation between members of the population and longitudinal studies that extend over a period of time and involve studying changes over time (Remenyi *et al.*, 1998). Cross-sectional designs have two major limitations (Higgs, 1997; Easterby-Smith *et al.*, 1996):

i. They do not provide explanations, the *why*, for the observed phenomena and relationships,
ii. Eliminating all external factors that could possibly cause the observed correlation is problematic.

Longitudinal studies can overcome those shortcomings but at the cost of generalisability, time, money and the simplicity of data and analytical techniques used (Higgs, 1997; Pettigrew, 1985). Because the purpose of the research and testing of the hypotheses is to investigate whether a link exists, the author's access to managers over time is limited and conducting a longitudinal study on a doctoral programme is not practical, the decision was taken to adopt a cross-sectional design.

Included in the research design was the iterative operationalisation and testing of the model. Figure 4.1 outlines the iterative learning journey of the research methodology.

Figure 4.1 Iterative methodological design



The next section introduces the survey instrument design, focus group, pilot study and refinements before discussing the main survey.

4.2 Survey Instrument Design: Measurement of Constructs

The operationalisation of the model and hypotheses were developed through a questionnaire that had a total of 70 questions including 7 constructs: *Performance, Strategic Orientation, Executive Values, Goals, Managerial- , Firm and Industry Characteristics* (Annex 1). To ensure reliability of the survey questionnaire a maximum of existing scales were used (Churchill, 1979). *Strategic Orientation, Managerial, Firm and Industry Characteristics* are a combination of ratios, interval and nominal scales. A 5-point Likert scale was used to measure *Performance, Executive values, Values Modes*, and *Goals*. See Table 4.2 for instrument design.

Table 4.2: Instrument Design

Construct	Measure	Source	Published Cronbach α	Survey Cronbach α
Performance	7 item scale: 3 item financial and 4 item operational measure	Financial: Dess and Robinson, 1984; Pearce, *et al.*, 1987;	.84	.80 .79 for 7items
		Operational: Miles and Snow, 1978; Thomas and Ramaswamy, 1996	None	.66
Strategic orientation	11 item scale with 4 alternative descriptions of strategic types for each item	Conant *et al.*, 1990; Parnell & Wright,1993; Truch, 2001	.69 test-retest reliability, Categoric variable	Majority Rule, N/A
Executive values	28 item List of Values (LoV) instruments	Kotey and Meredith, (1997)	.83	.87
Values modes	10 item list of values statement	Cultural Dynamics Ltd.	Categoric, N/A	Proprietary algorithm, N/A
Managerial characteristics	Age, Level of education, Functional background, Tenure	Thomas *et al.*, 1991; Thomas and Ramaswamy, 1996	Ratios, Categoric N/A	Ratios, Categ N/A
Firm age and size	Age, Sales revenue, Number of employees	Thomas *et al.*, 1991; Thomas and Ramaswamy, 1996	Ratios, N/A	N/A
Industry characteristics	5 item scale of industry product/service differentiation	Thomas *et al.*, 1991; Thomas and Ramaswamy, 1996	Categoric, N/A	Categoric, N/A
Strategic decision influence	1 item scale from Power instrument	Astley, 1978; Eisenhardt, 1989	Categoric, N/A	Categoric, N/A

The questionnaire was pre-tested, which is discussed in detail in the following section. One of the main aims of the pilot study was to test for reliability, "*the extent to which a variable or set of variables is consistent in what it is intended to measure*", (Hair *et al.*, 1998, p.3) and is free from error (Kwok and Sharp, 1998). There are two basic methods for testing the reliability of a measurement scale, test-retest and internal consistency or homogeneity (Churchill, 1979). A widely used and recommended (Churchill, 1979; Peter, 1979) diagnostic measure of reliability is the Crombach's α, a reliability coefficient that assesses the consistency of a metric scale measuring continuous data, which is reported for the appropriate scales.

Central to operationalisation of a construct is *validity*, the extent to which an operationalisation measures the concept it is supposed to measure (Samouel, 1996). *Construct validity* is concerned with an instrument's accuracy of what it is measuring and is the degree to which a construct achieves empirical and theoretical meaning that is determined by how well a survey instrument performs in a multitude of settings and populations over a number of years (Peter, 1979; Kwok and Sharp, 1998; Litwin, 1995). This can be expedited by a sound literature review to determine *content validity*, the degree to which the universe of the concept under study including its properties and characteristics are captured by the measure (Dulewicz *et al.*, 2003; Bagozzi, 1994; McDaniel and Gates, 1991; Samouel, 1996). *Face validity* is a subjective assessment which involves consulting a small group of typical respondents and/or experts to pass judgement on the suitability of the items chosen to represent the constructs (Hair *et al.*, 1998; 2003). Two further aspects of *construct validity* are *convergent* and *discriminant validity*. *Convergent validity* is the degree to which multiple measures designed to measure the same construct are related, which is determined if the measures are highly correlated (Kwok and Sharp, 1998). *Discriminant validity* assesses the degree to which a measure is not correlated too closely with similar but distinct concepts (Litwin, 1995).

4.2.1 Performance

Performance is recognised as 'one of the thorniest issues' in academic research (Venkatraman and Ramanujam, 1986). Perceptual measures of financial and operational indicators were used from primary data sources to overcome limitations of objective financial measures. Limitations of objective measures include its unsuitability at the strategic business unit level due to problems of aggregated financial data and differences in accounting policies that potentially limit its use for comparative purposes (Venkatraman and Ramanujam, 1986). Moreover, previous research on the use of objective data has shown that it is often hard to get actual financial data from respondents if public corporations are not being investigated (Hart and Banbury, 1994). Only 30 percent of the respondents in Hart and Banbury's (1994) study of the strategy performance link delivered actual data.

Previous research has shown a high degree of correspondence between self-reported subjective performance estimations and objective data that gives strong support for the validity and reliability of the subjective measurement technique (Dess and Robinson 1984; Hart and Banbury, 1994; Pearce *et al.*, 1987; Venkatraman and Ramanujam, 1987; Wong, 2002). Pearce *et al.*'s (1987) study of the impact of strategy and planning on financial performance correlated the subjective and objective measures of overall performance from 42 manufacturing firms and found correlations ranging from .45 to .92, $p < 0.001$. Their results were strongly supported by Hart and Banbury (1994) who checked the correlations between reported performance perceptions and objective data and found correlations between 0.55 and 0.99, $p < 0.001$. These studies confirm Dess and Robinson's (1984) correlations between objective and subject measures of return on assets ($r = 0.611$, $n = 17$, $p < 0.001$) and sales growth ($r = 0.694$, $n = 18$, $p < 0.001$). Finally, self reported performance has been used in doctoral theses (e.g. Samouel, 1996; Truch, 2001) and studies in strategic decision-making (e.g. Eisenhardt and Bourgeois, 1988; Eisenhardt, 1989).

Self-reported performance was favoured using Dess and Robinson's (1984) three item scale (Cronbach $\alpha = .84$) that was refined by Pearce *et al.* (1987) and measures *overall performance*, *return on investment* and *growth in the volume of sales* over the last three years. Each of these items is measured in relation to the performance of competitors on a 5-point Likert scale from 'much worse' to 'much better'.

To provide a more comprehensive operationalisation of business performance, Thomas and Ramaswamy's (1996) operational measures used to categorise companies into Miles and Snow's (1978, 1994, 2003) strategic types from a secondary data source were added to the 3 item financial performance scale. *Market focus*, ratio of marketing expenditure to total sales, *Research and Development*, ratio of research and development to total sales, P*roduction costs*, ratio of costs of goods sold to total sales, and *Asset intensity*, total assets per employee were converted into perceptual scales. Consistent with the format for the financial performance instrument, operational performance was measured in relation to the performance of competitors on a 5-point Likert scale from 'much worse' to 'much better'.

4.2.2 Strategic orientation

Measuring organisational strategy is a major methodological issue in strategic management studies (Snow and Hambrick, 1980; Huber and Power, 1985). Snow and Hambrick (1980) outline four approaches to measuring strategy:

i. Investigator inference where the researcher uses all available information to assess the organisation's strategy,
ii. Self typing, where the organisation's top managers or others in the organisation characterise the organisation's strategy,
iii. External assessment, where external experts characterise the organisation's strategy, and,
iv. Objective indicators, where strategy is measured using objective data sources rather than relying on self-perception.

Of these measures, the most commonly adopted in strategic management is self-typing, where a questionnaire is sent to a top manager in an organisation (McCall, 1999). Thomas and Ramaswamy's (1996) study used objective indicators to measure strategic orientation based on secondary data including marketing expenditure ratios, R and D expenditure, production expenditure and asset intensity. However, previous research has shown that it is often hard to get actual financial data from respondents if public corporations are not being investigated. Only 30 percent of the respondents in Hart and Banbury's (1994) study of the strategy performance link delivered actual data. Moreover, objective indicators have been criticised

for being one-dimensional conceptualisations of a multi-dimensional construct (Conant *et al.*, 1990; Hambrick, 1983). Finally, identifying Miles and Snow (1978, 1994, 2003) strategic types other than the dichotomous types of prospectors and defenders from secondary data is problematic.

The advantages of self-typing are that top managers' perceptions and opinions largely determine the organisation's strategy and a relatively large database can be generated for hypothesis testing (Snow and Hambrick, 1980). The disadvantages include (Conant *et al.*, 1990; Huber and Power, 1985; Snow and Hambrick, 1980):

i. Managers may believe their organisations are unique and resist efforts to classify them; Conant *et al.* (1990) found that managers are reluctant to self-type themselves as 'reactors',
ii. The perception of strategy may vary from manager to manager,
iii. Executives may report their organisation's intended strategy rather than their realised strategy and when no intended strategy exists the executive might create one for the benefit of the researcher,
iv. Managers may not conceive of strategy in the same terms as researchers; typing is based largely on product-market development but managers tend to think of strategies in terms of being the 'biggest', 'best', 'first', 'lowest priced' or 'highest quality',
v. Asking only the organisation's managers to assess strategy does not permit external, objective confirmation of their answers,
vi. Respondents may provide inaccurate or biased data because they are motivated to do so by forces such as the need for achievement, security and social acceptance,
vii. Respondents may lack crucial knowledge about the event of interest,
viii. Task demands can create information overload which can lead to bias,
ix. Inaccuracies can occur due to improper data elicitation procedures, such as badly phrased questions.

All of these concerns could threaten the reliability and internal validity of the data being collected, although many of these shortcomings can be overcome through strict controls for validity and reliability (McCall, 1999). Over 50 studies have operationalised the Miles and

Snow (1978, 1994, 2003) method and none have reported difficulty with reliability (Truch, 2001).

The most common self typing operationalisation of the Miles and Snow (1978, 1994, 2003) typologies are a selection from a 4-paragraph description of the strategic types (Snow *et al.*, 1980) or an 11 item instrument with 4 non identified descriptions of the strategic types for each item (Conant *et al.*, 1990). Conant *et al.'s* (1990) instrument (.69 test-retest reliability) results in a more valid categorisation because it measures 11 dimensions of an organisation and thus provides a more balanced view across many aspects of respondents' organisations (Truch, 2001). It has been used in studies (e.g. Parnell and Wright, 1993) and doctoral theses (e.g. Domicone, 1997; McCall, 1999; Truch, 2001) that have proven its usability as an instrument. Conant *et al.'s* (1990) instrument was extensively tested in a study of 406 American HMOs (Health Maintenance Organisations), and they reported a test-retest mean reliability of .69, which parallels Nunnally's (1978) .70 value guideline. In a subsequent study of the electronics industry, Parnell and Wright (1993) removed the health terminology thereby making the instrument more generic and usable across any industry. Through focus groups, Truch (2001) made minor refinements to the questionnaire that is the instrument used in the current research.

Conant *et al.'s* (1990) 11 item instrument is a multiple-option scale producing categoric data based on a majority rule decision-making structure. Organisations are categorised as defenders, prospectors, analyzers or reactors depending on randomised response options that are not identified by strategic type. The key for decoding the responses is provided in Annex 2. In the case of a tie, two theoretically anchored decision rules apply (Conant *et al.*, 1990, p. 373):

i. Ties between defender, prospector and/or analyzer response options result in the organisation being classified as an analyzer,
ii. Ties involving reactor response options result in the organisation being categorised as a reactor.

Analyzers, according to Miles and Snow (1978, 1994), are hybrid organisations that possess both defender and prospector characteristics. According to Conant *et al.*, (1990), reactors respond inconsistently to the challenges of the adaptive cycle, behaving for example like defenders when conducting environmental surveillance, like prospectors when developing new products and analyzers when controlling and evaluating performance.

4.2.2.1 The number of strategic types

A research question to be resolved was whether to test for 2 strategic typologies (prospectors and defenders) replicating the number of types used in Thomas *et al.*'s (1991) and Thomas and Ramaswamy's (1996) studies or use all 4 types including reactors and analyzers. Miles and Snow (1978, 1994, 2003) view prospectors and defenders as residing at opposite ends of a continuum of adjustment strategies. Therefore, a benefit of testing for just two dichotomous strategic types, prospectors and defenders, is that it draws clearer distinctions. The strategic and managerial attributes of analyzers are not as clear as those of prospectors and defenders[17] (Thomas and Ramaswamy, 1996). Whilst identifying the extreme types (prospectors and defenders) would clarify the explanatory effort, treating strategic orientation as a dichotomous variable would mean forcing analyzers and reactors into categories that they do not belong thus compromising the data. The addition of two types does not significantly affect the length of the questionnaire. To avoid compromising the data the decision was made to include all 4 types in the pilot study.

4.2.3 Executive Values

Kotey and Meredith's (1997) 28 item personal values scale was used for its clear advantages over other values scales due to its high reliability (Cronbach $\alpha = .83$) and successful use in executive values studies. Moreover, because it is drawn from Rokeach's (1973) and England's (1967) personal values instruments it appears to be the most comprehensive values instrument, which overcomes the limitations of other values instruments that have been criticised for not including values that may be equally or more meaningful than those included

[17] Analyzers are treated as the 'intermediate position' between the extremes of defenders and prospectors and expected to 'score in between' defenders and prospectors as they are a component of both (Miles and Snow, 1978, 1994; Zahra and Pearce, 1990). Hambrick (1980) refers to analyzers as a 'blend' of both.

in the instrument (Schwartz, 1996). Each of the items are on a 5-point Likert normative[18] scale from 'not at all important' to 'very important'. 'Executive values' was changed to 'personal orientation' in the questionnaire to minimise the emotional charge of the word 'values'.

A second values instrument, the Values Mode scale, was used for exploratory purposes to cross validate the Kotey and Meredith (1997) values instrument scale and obtain convergent validity by assessing the degree to which two measures of the same concept are correlated (Hair *et al.*, 1993). It was developed in the 1970's by Taylor Nelson, a research company, and through the use of cluster and factor analyses of the data Social Value Groups (SVGs) were derived. In 1979, Christine MacNulty from the Stanford Research Institute (SRI) identified the relationship between SVGs and Maslow's (1970) developmental model of the Hierarchy of Needs. In 1999-2000, a classification model rooted in Maslow's Hierarchy of Needs was developed whereby respondents are categorised into Inner, Outer and Sustenance driven groups through use of a proprietary algorithm. Each of the 10 questions is on a 5-point Likert scale from 'not at all important' to 'very important'. Reliability tests for this instrument are unreported. It was used with the knowledge of the risk involved of using an instrument with unproven reliability. It increases the risk of measurement error and 'noise', defined by Hair *et al.* (1998, p. 9) as, "*the degree to which observed values are not representative of the 'true' values*", which distorts relationships between variables making multivariate techniques less powerful and may result in weak or marginal results.

4.2.4 Goals

The Eisenhardt and Bourgeois (1988) 6 item goal conflict scale provided the basis of the instrument used in the pilot. The goal scale was augmented by organisational goals theoretically expected to align with and differentiate between prospectors and defenders of the Miles and Snow strategic types.

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[18] The normative technique measures values independently of one another, versus the ipsative technique of rank order or forcing a choice of one value at the expense of another (Meglino and Ravlin, 1998).

Prospectors pioneer in *product/market development* whereas defenders avoid it, therefore, it was chosen as a dimension of organisational goals (Hambrick, 1980; Miles and Snow, 1978, 1994, 2003; Snow and Hrebiniak, 1980; Zahra and Pearce, 1990). *Cost efficiency/productivity* was chosen as another goal that was expected to differentiate prospectors and defenders because the latter emphasise internal efficiency, rationalisation and lower production expenditure and prospectors do not (Hambrick, 1983; Miles and Snow, 1978, 1994; Thomas and Ramaswamy, 1996; Zahra and Pearce, 1990). Hambrick (1983) identified *cash flow* as a goal which prospectors perform worse than defenders, so that was also included in the goal instrument. Finally, *environmental sustainability* was included in the instrument to be piloted.

4.2.5 Managerial characteristics, level and background information

Managerial characteristics were operationalised based on Thomas *et al.*'s (1991) and Thomas and Ramaswamy's (1996) measures of managerial characteristics with minor amendments. *Age* and *tenure* were operationalised by chronological age and number of years the respondent had served with the organisation. The number of years in formal education and the highest level of study achieved were asked to ensure clarity of analysis. Functional background was operationalised by a respondent's most numbers of years spent in a function. 'General management' replaced 'Administration' used in Thomas and Ramaswamy's (1996) study and 'Human resource' replaced 'Personnel', consistent with the terminology used by Snow and Hrebiniak (1980) and Chaganti and Sambharya (1987). 'Strategy' and 'information technology' was added to the list and 'Operations' replaced 'Manufacturing' to use terms that are current and meaningful to a variety of managers. Managerial level was determined by asking respondents to specify whether they were owner/managers, senior managers or 'other'.

4.2.6 Contextual Factors: Firm size, age and Industry membership

Contextual factors were operationalised based on Thomas *et al.*'s (1991) and Thomas and Ramaswamy's (1996) measures firm age and size. Firm age was measured by the time elapsed since the company was founded and firm size was measured as the amount of sales and number of employees.

Classifying industries in a valid and reliable way is problematic, e.g. broad categorisations such as 'stable' and 'dynamic' have been criticised for being misleading (Zahra and Pearce,

1990). Moreover, in previous studies employing the Miles and Snow types, the environment has been operationalised in different ways making comparisons and the assessment of industry classification instruments for validity and reliability difficult. Hambrick's (1983) study of Miles and Snow's (1979, 1994, 2003) strategic types performance in different environments based on the Profit Impact of Market Strategies (PIMS) database used two environmental variables, product lifecycle and industry new product innovation, and categorised environments as *Growth-innovative*, *Growth-noninnovative*, *Mature-innovative* and *Mature-noninnovative*. Zahra (1987) used Miller and Friesen's (1978) Environmental Uncertainty Perceptions scale using the dimensions of *dynamism*, *hostility*, *complexity* and *dominance* using a 7 point Likert scale with reported validation by Miller and Friesen (1978). Truch (2001) used a categoric 5 level environmental turbulence scale: *no changes, slow incremental change, fast incremental change, discontinuous predictable change* and *discontinuous unpredictable change* with no instrument reliability data reported. Ninety eight percent of all respondents in Truch's (2001) study reported a changing business environment; not surprising considering the study was carried out in 2001, the year of 9/11. Finally, it was believed that the number of hypotheses and complexity of the model was sufficient without further complication by inclusion of industry-specific hypotheses. For the pilot, background information was gathered from respondents to enable categorisation of their organisation by main industry sector activity.

Having reviewed the survey instrument design, the focus group, pilot study and its results and post pilot refinement will now be reviewed.

4.3 Focus Group and Pilot Study

This section covers the focus group, pilot study and post pilot refinement to the questionnaire.

4.3.1 Focus group

A focus group of approximately 30 practitioners and researchers drawn from the Henley Management College's Doctoral Theme Group participated in the research project to assess face validity that involves consulting a small group of typical respondents and/or experts to pass judgement on the suitability of the items chosen to represent the constructs (Hair, *et al,* 2003). Before the pilot study a focus group was asked for their assessment of the

questionnaire for clarity and understandability and after the pilot study a focus group assessed the logic of the pilot findings and was invited to suggest improvements to the questionnaire. Moreover, expert practitioners in executive search and selection psychometric testing, organisational diagnosis and consumer research were separately asked to review the questionnaire to verify its face validity. This resulted in some minor amendments but no items were added or removed.

4.3.2 Pilot Study

The purpose of the pilot survey was to minimise measurement error by checking respondents' answers to determine whether they understood the questions, the reliability of appropriate instruments and that the questionnaire was eliciting the data necessary to allow analysis of the main survey. The pilot survey questionnaire was tested with business practitioners in a range of organisations that reflected the population selected for the main survey. In the first pilot, 34 respondents completed the questionnaire that included MBA students and Henley Management College Alumni. A software fault in the software programme (Teleform) meant that data for the scales in the latter half of the survey could not be relied upon, and a second pilot was run with 32 respondents that also included MBA students and Henley Management College Alumni. The consequence of this fault was a 6 month delay in running the main survey.

4.3.3 Refinement to the questionnaire

The post-pilot analysis included checking the reliability of the instruments, which was the catalyst for refinements to the questionnaire.

4.3.3.1 Reliability Check

The *Performance*, *Executive values* and *Goals* scales were checked for reliability acknowledging it is highly tentative and must be viewed with caution due to the low number of responses. Hair *et al.* (1998) recommends a main sample size of 50 to execute factor analysis. Cronbach alpha are reported in Table 4.3.

Table 4.3: Reported Pilot Cronbach Alpha

Scale	Pilot Cronbach alpha
Performance (7 item scale)	.62 (N=22)
List of Values (28 item scale)	.77 (N=29)
Goals (13 item scale)	.46 (N=27)

For research purposes, lower limits of the Cronbach α = .70 although .60 is acceptable for exploratory research (Hair *et al.*, 1998). The reliability for the goal scale was Cronbach α = .46, which was the main cause for concern.

4.3.3.2 Goals

The means of the items were checked and the items with the lowest means, *Stock price*, *Community service* and *Environmental sustainability* were then compared with significance correlations that confirmed low significance with other items as did *Differentiation* (Annex 3). Several explanations might account for why *Stock price* was not more of an important goal. Firstly, stock options would be a significant goal if one had them, and in the context of the MBA student sample, it is perhaps not surprising that it was perceived as not important. This is consistent with Marris' (1963) model of the firm which argues that managers' goals are salary, power, status and job security, whereas owners' goals are profit, capital outlay, market share and public esteem (Koutsoyiannis, 1979). Stock price's importance would presumably increase with a sample of more senior managers, although the results could be reflecting the contextual phenomenon of a depressed stock price at the time of the pilot. Perhaps even for senior managers with their options 'underwater' or which cannot be exercised for a number of years, stock price as an organisational goal has lost significance. Only for the very top managers who have discretion to either exercise and/or re-price their options could it be perceived as a key organisational goal from their perspective.

Due to the low reliability score of the instrument the decision was taken to replace the Eisenhardt and Bourgeois (1988) scale with Zahra's (1987) 10 item goal scale verbatim used in her study on the relationship between Miles and Snow's strategic types, environmental perceptions, managerial philosophies and goals. It was decided that *Company prestige* and *Stock price* from Eisenhardt and Bourgeois's (1988) scale and *Environmental sustainability* would be retained to enhance Zahra's (1987) scale. Each of the questions are on a 5-point Likert scale from 'Least important' to 'Most important'.

4.3.3.3 The number of strategic types

A key question to be resolved was whether to test for just 2 strategic types (prospectors and defenders) or all 4 types including reactors and analyzers. Based on the significant proportion (47%) of reactors and defenders in the sample (see Table 4.4) the decision was made to include all 4 types in the main survey because using all four types would be an extension to Thomas and Ramaswamy's (1997) study and it was believed that the main survey would yield sufficient information for testing hypotheses regarding strategic orientations.

Table 4.4: Strategic types as percentage of population

Strategic Types	Pilot (N=32)
Prospectors	34%
Defenders	19%
Analyzers	19%
Reactors	28%

4.3.3.4 Industry membership

In the pilot, the organisation's main activity and industry sector information was captured but no specific hypotheses concerning industry characteristics were developed. It was decided to operationalise industry characteristics based on Thomas and Ramaswamy's (1996) measure of industry product/service differentiability and include a specific hypothesis[19] due to the potential impact industry effects could have on performance. Fortune 500 companies in the

[19] H10 Industry characteristics will not have an impact on performance

electronics, chemicals and petroleum refining industries were chosen for their study because they represented different product differentiability which allowed the performance impact of the strategy-manager match to be tested across industries with different characteristics. Petroleum refining was categorised as an undifferentiated commodity, electronics as differentiated, and chemicals in the middle, some products differentiated and some undifferentiated. A single item 5-point scale from undifferentiated to highly differentiated was developed to enable respondents to categorise the level of industry differentiation in their organisation's trading environment.

4.3.3.5 Perceived decision influence

The data from the pilot showed that a more direct measure of strategic decision-making influence was necessary. Based on the data, answers to the question concerning the number of levels between the CEO and the respondent were not eliciting the answers useful as a proxy to determine strategic decision-making influence. Therefore, a more direct measure was sought. To determine strategic decision making influence it was decided to tailor Astley's (1978) Power instrument verbatim for strategic decisions, which was employed in Eisenhardt's (1989) study of top management teams' strategic decisions of eight microcomputer firms in high velocity environments. The extent of strategic decision-making influence is a single item 5-point Likert scale from 'No influence' to 'Great deal of influence'.

Having reviewed the post pilot refinements, the main survey will now be reviewed.

4.4 The Main Survey

4.4.1 Population

The survey population was international in-work managers of public and private sector organisations at the business unit level (as opposed to corporate or group level of a multi-business company.[20] Owner/managers, senior managers and middle managers are the unit of analysis for the current research.

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[20] The use of the Miles and Snow typology is recognised as being applicable at the business level (Hambrick, 1983).

Nationality and whether the population should include UK-based non-nationals and international managers along with British-born UK managers were considered. Non-British born and international segments could potentially add complexity, 'noise' and a cross-cultural values bias, which might confound the investigation into the variables of the study. The main benefits of allowing non-UK nationals in the study are to increase the potential sample size and allow country-of-origin segmental analysis. Moreover, values theory addresses the issue of cross-cultural noise in that values are postulated to be held universally across people and cultures, only differing in their pattern amongst individuals and societies (Williams, 1979; Rokeach, 1979). Values are therefore understood to be determined by an individual's development, which mitigates the culture factor. It was decided that excluding UK-based non-nationals (such as the author) and international managers would deprive the study of potential data richness and is unreasonable in a multi-cultural society with a major international business hub (London). Therefore, the decision was made to include managers from the UK and abroad and include a question that asked for respondents' country of origin if not from the UK.

Regarding industry specification as a population factor, an examination of multiple firms across industries was chosen to test executive and strategic orientation alignment vis-à-vis the contextual factors of industry characteristics, firm size and age to increase the generalisability of the results (Thomas and Ramaswamy, 1996). Therefore, sectors were not pre-selected which is methodologically consistent with the model and initial hypotheses that propose industry as a contextual factor will not mitigate the impact of executive and strategic orientation alignment on performance.

4.4.2 Sampling frame

The sampling frame consists of owner/managers, senior managers and middle managers that include individual corporate clients, Alumni and in-work course participants of Henley Management College (HMC) and members of the UK Institute of Ethics and the UK Strategic Planning Society. Table 4.5 provides a full breakdown of the sample frame.

Table 4.5: Sampling frame

On-line	
Individual client executives of Henley Management College, UK	35
Members of the Institute of Ethics, UK	80
Flexible Evening MBA (FEMBA), 2yr. UK-based,	68
URL link in Newsletters:	
Members of Henley MBA Alumni	5,020
Members of the Strategic Planning Society, UK	5,000
(1,500 SPS members, 3,500 SPS subscribers)	
On-line sample frame	**10,203**
Paper-based	
European logistics company	11
Distance Learning (DL) MBA, UK-based	48
DL MBA, international: Germany-, Greece- and Cyprus-based	54
Paper-based sample frame	**113**
Total	**10,316**

Respondents currently pursuing a postgraduate qualification at HMC included in-work managers participating in a company-based diploma programme from a European logistics company, a 2-year executive evening MBA (FEMBA) and two in-work Distance Learning (DL) MBA cohorts with course members that have at least 3 years' managerial experience. One DLMBA cohort was UK-based and the other was an international cohort comprised of Germany, Greece and Cyprus based managers.

4.4.3 Sampling procedure

The sample frame was broad in size and scope and included the international business community without particular profiling. The need to obtain access and the required information at a reasonable cost and in a sufficient number to allow statistical analysis using multivariate techniques prevented the use of a random sample. The sample was drawn using a non-probability sampling design (Table 4.6) using a combination of judgement concerning qualification and non qualification respondents and convenience. The implication of the sample procedure is that generalising the findings should be treated with caution (Hair *et al.*, 2003).

Table 4.6 Types of Sampling Methods

Probability	
Simple Random	Each element of the target population is assigned an equal probability of being selected
Systematic	Randomly selecting an initial starting point on a list and thereafter every n^{th} element in the sample frame is selected
Stratified	Drawing a sample from a target sample partitioned into relatively homogeneous sub-groups that are distinct and non-overlapping
Cluster sampling	Collecting information from randomly selected pre-specified samples of individual clusters that are sub-populations of the target population
Multi-stage cluster sampling	A sequential stage process including a random selection of clusters that is followed by a random selection of clusters drawn from a second set of smaller sections which may involve more stages
Non-Probability	
Convenience	Selecting sample elements that are most readily available to participate in the study and who can provide the required information
Judgement	Selecting elements in the sample for a specific purpose
Snowball/Referral	Initial respondents are used to identify other respondents in a target population
Quota	A quota is set for the sample elements including specification of characteristics of elements to be selected from each pre-defined strata of the target population.

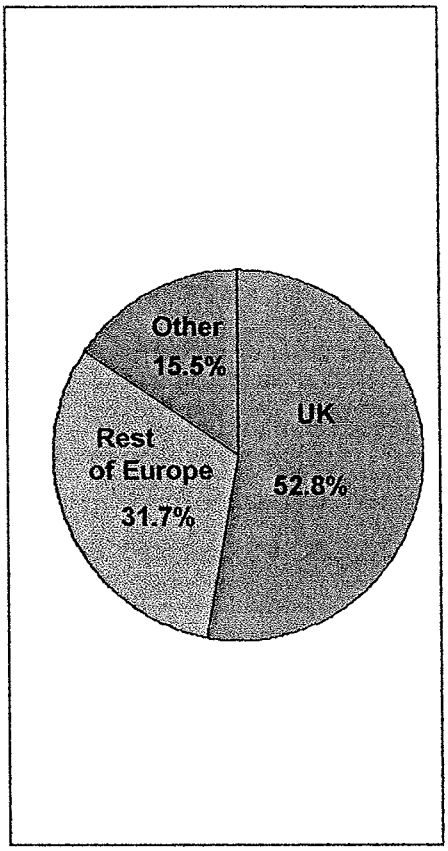
Source: Hair *et al.*, 2003, pp. 211-218

Given, however, the firm size range (by employees, 1 to 400,000; $\overline{X}$ = 14,522, s = 48,370[21]) and the diversity of industries in which they operate (Professional services, 12%; IT services, 11%; Banking/financial services, 11%; Transportation/Logistics, 9%; Manufacturing, 7%; Public sector, 7%; Telecoms, 7%; Chemical/Pharmaceutical, 6%, etc.), there is no reason to expect systemic bias in the findings.

Analysis sample bias is undertaken at the end of this chapter in section 4.5. Respondent analysis also shows 84.5% of the respondents' country of origin is European, including 53% from the UK and 32% from Continental Europe (Figure 4.2).

[21] It is obvious by the sample that it included companies with very large numbers of employees.

Figure 4.2 Country of Origin Distribution



4.4.1.1 Minimum efficient sample size and sample adequacy

Determining whether a sample size is sufficiently large to allow inferences to be made from the population using multivariate analysis techniques with confidence and precision is a key consideration of sample size (Churchill, 1991). In order to determine the efficient sample size, Hair *et al.*'s (2003, pp. 218-219) conditions for consideration were followed:

i. The degree of confidence (often 95% or 99%),
ii. The specified level of precision (for a 1 – 5 interval scale is 0.25 units),
iii. The amount of variability.

Since the outcome variable (P_finops), discussed in depth in the Analysis chapter section 5.1.1, is a scale item (1-5) the formula for estimating the minimum sample size is used (Samouel, 1996):

$$n = \left[\frac{Z\sigma}{e}\right]^2$$

where: Z = the confidence level

σ = the population standard deviation

e = the sampling error, the difference between the sample and population means tolerated

Hair *et al.* (2003) expresses the same formula as:

Sample size = [degree of confidence required * variability) / (desired precision)]^2

Wishing to have a confidence level of 99% = 3 (standard errors about the mean), the standard deviation of the performance measure (reported in section 5.1.1.2) is .68 that was rounded to 1 and the desired precision of .25 (of a unit) was chosen. Therefore, the minimum efficient sample size = [3 * 1/ .25] ^{2} = 144, which the sample size of this survey exceeds (163) indicating that inferences from the sample about the population can be made and multivariate techniques can be made with accuracy and precision.

4.4.4 Data collection

Data collection took place between May and Mid July 2003. The questionnaire was designed to be distributed on-line hosted on a web site (HMC) and face-to-face using a paper-based version. Current qualification participants excluding FEMBA students were distributed a paper-based version and on-line respondents were emailed a URL link to an on-line questionnaire hosted on a web site (HMC) except for HMC Alumni and Strategic Planning Society members who received the URL link in their respective newsletters. HMC Alumni and Strategic Planning Society members received a reminder in their newsletter the following month and all other on-line respondents received a reminder following receipt of the URL link after two weeks, a month and a final reminder the following month.

One hundred and sixty three usable responses were received, 106 paper-based and 57 on-line. The face-to-face survey response rate was 93.8% and the on-line response rate was 0.56%. The very low on-line response rate can be attributed to the 10,020 HMC Alumni and Strategic

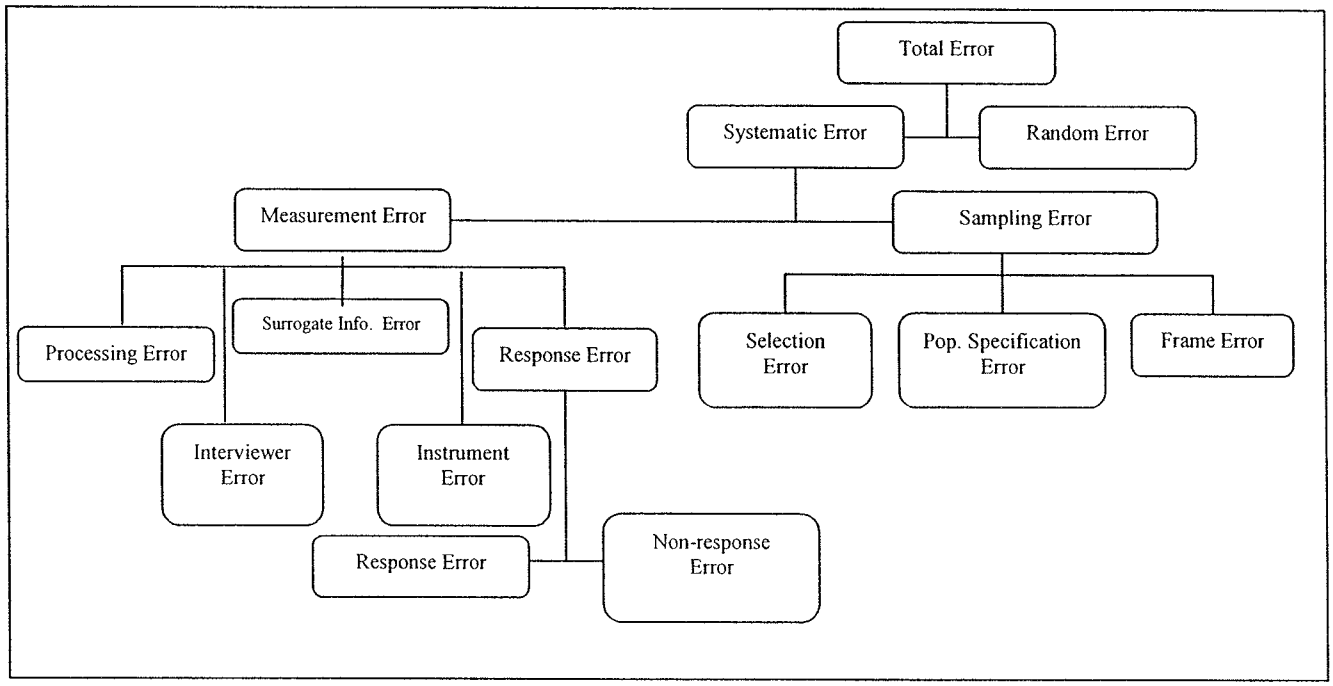
Planning Society respondents that received the URL in their respective newsletters. Even with the incentive to on-line respondents of an executive summary of the research findings and a £20 charity donation for each completed questionnaire to the charity that received the most respondents' nominations, the result was disappointing. This survey suggests distribution of a URL link in newsletters should be avoided as a distribution strategy in cross sectional research.

To test for selection error, an independent-samples t-test was conducted to compare performance scores for on-line and paper-based respondents. There was no significant difference in scores for on-line respondents ($\overline{X}$ = 3.25, s = .65) and paper-based respondents [$\overline{X}$ = 3.29, s = .70; t(135) = -.29, p = .77]. A chi-square test of expected versus observed frequencies within strategic and executive values orientation variables was also carried out. A Chi-square test showed no significant difference within the other strategic orientation groups (df = 3, Chi-square = 7.34, $p < .05$). Within the strategic orientation variable there was an observed difference between the frequency of reactors with 4% (n = 2) among the on-line group compared to 23% (n = 24) in the paper-based condition, however, reactors are not important to the study. Reactors are a residual type and of less interest to the study than the stable types of defender, analyzer, and prospector. Within the executive values orientation variable, there were three levels (sustenance driven, outer directed and inner directed). The Sustenance driven level for the on-line and paper-based groups was 0% and 2%, respectively. A Chi-square test on the other two levels revealed no significant difference between the paper-based and on-line conditions (df = 1, Chi-square = 1.65, $p < .05$). Therefore, in subsequent analysis all four Miles and Snow typologies of strategic orientation were used whereas only two executive value orientations (the outer- and inner-directed) were used.

4.4.5 Testing for sampling error

Errors and biases increase the difference between the true and the observed score and therefore threaten reliability and validity (Bagozzi, 1994)[22]. An overview and its components are given in Figure 4.3.

Figure 4.3: Types of Error in Survey Research



Source: Samouel, 1996, p. 55

Whilst acknowledging the potential types of error, this section focuses on error that results from the sampling process, i.e. sampling error, or 'bias' (McDaniel and Gates, 1991) that results from the research design or execution. To detect sample bias (frame-, population specification- and selection error) in the current research, significant differences between respondent groups by managerial level, amount of strategic decision-making influence and organisational tenure are tested for in the following sub-sections.

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[22] $y = T + S + MS + e_r$, where y = the variation of measurement, T = the true-score, S = systematic error, MS = measure specific error not captured by T or S and e_r = random error (Bagozzi, 1994, p. 27)

4.4.5.1 Managerial level

Analysis was carried out to ensure there was no significant bias between respondents according to managerial level as shown in Table 4.7.

Table 4.7 Managerial level

Background	No. of cases	Percentage
Owner/managers	27	16.6%
Senior managers	78	47.9%
Middle managers	55	33.7%
Unclassified	3	1.8%
Total	163	100%

To determine whether unclassified cases should be removed or reclassified, the means of unclassified responses to overall financial performance was compared with that of owner/managers, senior managers and middle managers. The results showed that the mean of the unclassified cases was equal with the mean of owner managers. Having further investigated the attributes of the 3 unclassified cases[23] that showed they have seniority in terms of functional experience (35, 15 and 14 years, respectively) the decision was taken to reclassify the three cases as owner managers.

A one-way between-groups analysis of variance (ANOVA) was conducted to investigate the impact of managerial level on overall performance, as measured by financial and operational performance, P_finops, described in the analysis section on performance. Respondents were divided into three groups according to their level (owner/managers, senior managers, and middle managers). There was no statistically significant difference between groups at the $p < .05$ level in performance scores for the three managerial level groups [$F(2, 134) = 1.70$, $p = .186$] where the F-value is calculated by dividing an estimate of the variability between groups by the variability within groups. Therefore, the null hypothesis H_O: that there is no significant difference between the means of owner manager, senior manager and middle manager groups on performance is accepted and the alternative hypothesis H_A: that at least

[23] Identification numbers 133, 222 and 223

one of the mean scores between groups is different is rejected. It can therefore be concluded that response bias due to managerial level is not a significant factor in the current study.

4.4.5.2 Tenure

Regarding tenure bias, in Thomas and Ramaswamy's (1996) study only respondents that had been employed by the organisation for a minimum of one year were included in their research to account for the lag effect between managerial action and organisational outcome. To compare performance scores for those with one year or more tenure (lag) and those with less than one year's tenure (no lag), the single item tenure response data was categorised into two groups ('lag' and 'no lag') and an independent-samples t-test was conducted. There was no significant difference in performance scores for those with no lag ($\overline{X}$ = 3.27, s = .57) and those with lag [$\overline{X}$ = 3.28, s = .69; t(135) = -.016, p = .987]. It can therefore be concluded that bias due to tenure does not constitute a significant factor in the current study.

4.4.5.3 Decision-making influence

A one-way between-groups ANOVA was conducted to investigate potential response bias due to different degrees of strategic decision-making influence. To make the data suitable for a comparison of means across groups, it was necessary to transform the single item variable into a categorical variable. The construct was collapsed from 5 to 3 values to create three groups (Table 4.9), a procedure used in a number of studies (Pallant, 2001).

Table 4.9 Recoding of strategic decision-making influence

Decision influence scale	**Combined item measure**	**Recoded decision influence scale**
1 & 2	Small influence	1
3	Medium influence	2
4 & 5	Large influence	3

Respondents were divided into three groups according to their degree of decision-making influence (Small, Medium, and Large). There was no significant difference between groups at the $p < .05$ level [F(2, 130) = .415, p = .66]. It can therefore be concluded that bias due to strategic decision-making influence does not constitute a significant factor in the study.

In summary, no mean differences were found between groups related to managerial level, length of tenure and degree of strategic decision-making. There was no response bias based on whether surveys were completed on-line or paper-based (see Section 4.4.4).

4.4.6 Statistical Techniques

The primary statistical measure used for hypotheses testing is analysis of variance (ANOVA) which is a replication of similar studies using the Miles and Snow (1978, 1994, 2003) typology (e.g. Conant *et al.*, 1990; Parnell & Write, 1997) and manager-strategy coalignment (e.g. Thomas and Ramaswamy, 1996). Moreover, ANOVA is the appropriate analytical technique for the concept of 'fit as matching' manager-strategy coalignment approach of the current research (Venkatraman, 1989). ANOVA has been the primary analytical technique in many of the studies which classify organisations into the Miles and Snow (1978, 1994, 2003) types (e.g. Conant *et al.*, 1990; Domicone, 1997; McCall, 1999; Thomas and Ramaswamy, 1996). Whilst many studies have used one-way between-groups ANOVA with pairwise comparisons amongst strategic types on performance, the current research employs an interaction effects approach using a two-way between-groups ANOVA also referred to as a factorial analysis of variance (Sokal and Rohlf, 1981). This technique has the advantage of allowing an investigation into main and interaction effects of independent variables in the research, particularly *strategic-, executive values-* and *goal orientation* and *managerial-, firm- and industry characteristics* on the dependent variable of *organisational performance.* Moreover, consistent with those studies that have also used regression techniques, ANOVA and regression are conceptually the same procedure where the regression coefficients are defined by the differences in group means[24] (Field, 2000). Therefore, the decision was taken to use a similar technique (i.e. ANOVA) to other studies to determine if the results are consistent with previous research.

[24] For each subject the value predicted by the model is the mean for the group to which the subject belongs (Field, 2000, p. 254).

4.4.7 Summary

The questionnaire based survey used instruments whose components where reflected in the research model and hypotheses. All constructs were measured with valid and reliable instruments. The *financial performance* scale was augmented with a 4 item *operational performance* measure, the *Goal* scale was extended with 3 items, and *Managerial and Industry characteristics*, *Firm age* and *size* were operationalised based on Thomas *et al.*'s (1991) and Thomas and Ramaswamy's (1996) secondary data-based studies that were turned into perceptual scales for use on a questionnaire. The minimum efficient sample size was met allowing the use and execution of the multivariate analysis techniques of exploratory and confirmatory factor analysis and ANOVA with confidence and precision. Potential sample error due to managerial level, tenure and decision-making influence was tested for with the result that they do not constitute bias in this study. Analysis of variance was chosen as the statistical technique to compare mean scores of different groups of respondents on performance consistent with similar studies, and in particular, a two-way between-groups ANOVA was favoured to enable an investigation into the main and interaction effects of the key independent variables on performance. Statistical analysis of the survey results is presented in the next chapter and interpretation follows in Chapter 6.

Chapter 5 Analysis and Findings

Introduction

The results of the main survey described in Chapter 4 are analysed in the following sections and the results are presented. Data from the paper-based questionnaire was scanned into an Excel spreadsheet and on-line surveys were automatically transferred into an Excel spreadsheet by the software package Teleform. This chapter is devoted to the statistical analysis of the survey data and results using the statistical software package SPSS version 11.1 and AMOS version 4.0.

5.1 Research constructs and their metrics

In this section, the process of transforming the research variables to make them suitable for the use of the hypothesis testing research technique, ANOVA, is outlined. The ANOVA technique requires a single continuous dependent variable and therefore the process of converting the financial and operational performance measures into a single measure of *performance* is discussed. Moreover, the ANOVA technique also requires independent variables to be categorised into three or more groups and so the process of transforming *Strategic, Executive values* and *Goal orientation, Managerial, Firm* and *Industry characteristics* into categoric variables is also examined.

5.1.1 Performance

In this section, the transformation of operational and financial measures of performance into a single value of performance required by the ANOVA technique is explained.

As the dependent variable in the research model, performance is a combination of a 3 item financial performance measure[24] developed by Dess and Robinson (1984) that has a reliability

[24] Overall financial performance, return on investment and sales growth

coefficient in the current study of Cronbach $\alpha = 0.80$ as well as a 4 item operational measure[25] developed by Thomas and Ramaswamy (1996) that has a reliability coefficient of Cronbach $\alpha = 0.66$.

The 7-item goal scale was subjected to principal component analysis (PCA). Prior to the PCA an assessment was made of the amenability of the data to factor analysis. An inspection of the correlation matrix revealed coefficients of .3 and above as recommended by Pallant (2003). The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA) was assessed according to Hair *et al.*'s (1998) guidelines, ".80 or above, meritorious; .70 or above, middling; .60 or above, mediocre; .50 or above, miserable; and below .50, unacceptable" (p. 112). The KMO value was .803 (Table. 5.1) exceeding the recommended value of .6 (Kaiser, 1970, 1974). The Bartlett's Test for Sphericity reached statistical significance at the $p < .000$ level that is over the statistically significant recommended threshold of $p < .05$ (Pallant, 2003) confirming the factorability of the correlation matrix.

Table 5.1 KMO and Bartlett's test for performance measure

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.803
Bartlett's Test of Sphericity	Approx. Chi-Square	253.816
	df	21
	Sig.	.000

Orthogonal rotation through Varimax revealed 2 factors with eigenvalues greater than 1, explaining 60.4% of the variance and an inspection of the scree plot (Annex 5) revealed a break after the 2nd factor. The rotated solution (Table 5.2) revealed the presence of 'simple structure' (Thurston, 1947) with both factors showing strong loadings. Hair *et al.'s* (1998, p. 112) guideline for assessing statistically significant factor loadings was followed which recommends a .45 factor loading for the sample size of this current research (n = 163).

[25] Production costs, Asset intensity, Market focus and Research and development

Table 5.2 Factor analysis of overall performance

Rotated Component Matrix[a]

	Component	
	1	2
p_performance	.826	
p_roi	.827	
p_salegrowth	.793	
p_production costs		.730
p_market focus		.766
p_assetintensity		.539
p_r&d		.642

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

The result of this analysis indicates that financial and operational measures are sub-dimensions of performance.

5.1.1.1 Second Order Confirmatory factor analysis

A single measure of performance is required to carry out an ANOVA analysis. Exploratory Factor Analysis was used to see whether the data correlated in the two specified dimensions, finance and operations. This was confirmed as illustrated above. However, Confirmatory Factor Analysis (CFA) was also carried out to re-enforce the reliability and validity of this concept. The model that was used for CFA is given below in Figure 5.1. Two issues arose before the execution of this model through AMOS. The first issue was replacing missing values by the use of means. The second issue was that the variance e9 was shown to be negative in an earlier version. Therefore, following Hair *et al.*'s (1998, p. 610) guideline, the variance was set to (0.005). The model then performed well. This was reflected through an overall test of significance, Chi-square = 17.575 which proved insignificant at 13 degrees of freedom (Table 5.3).

Figure 5.1 CFA Model

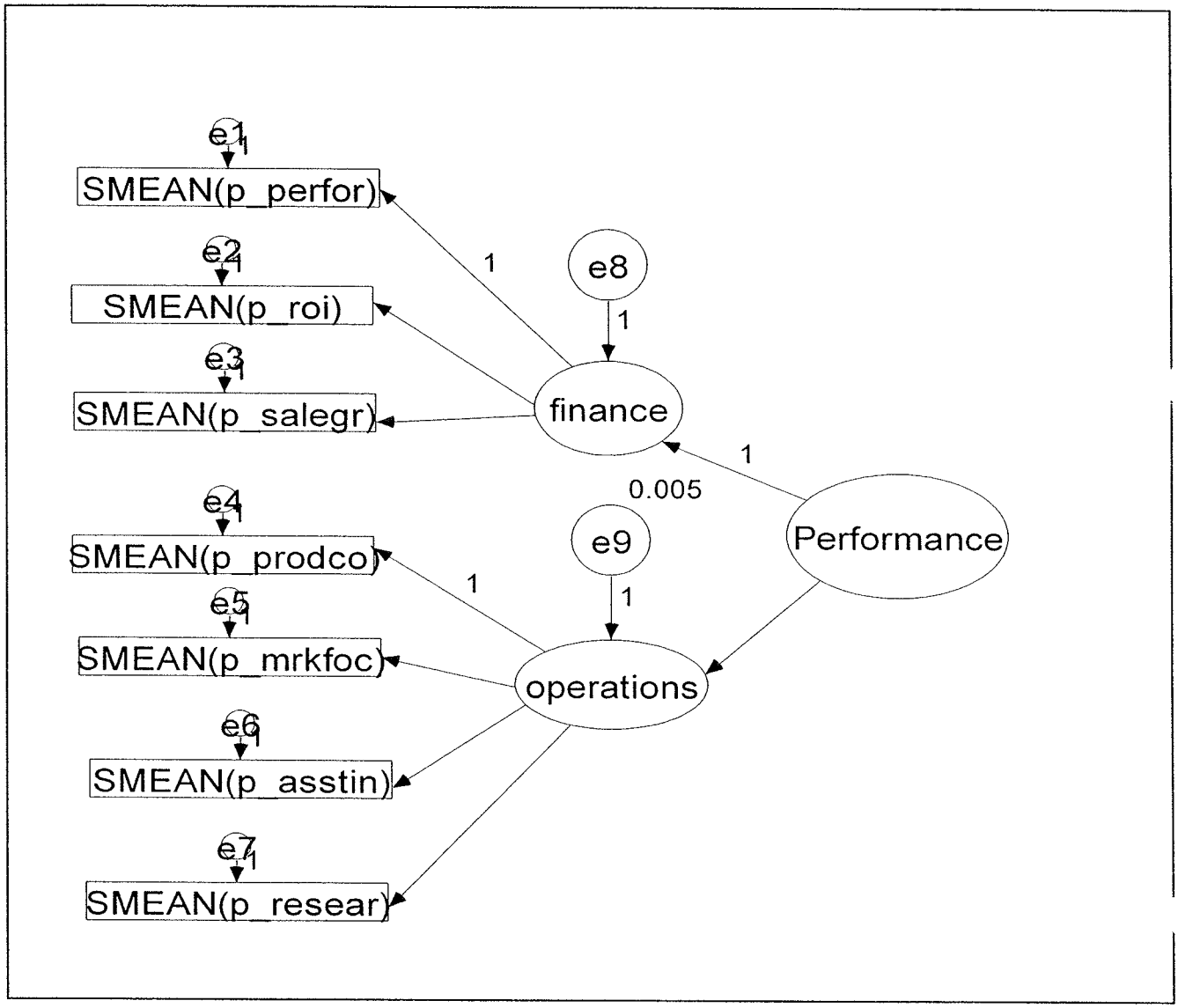

Table 5.3 Goodness of Fit Criteria

Measure	Description	Criteria
CMIN	17.575	
P	0.174	>.05
GFI	.971	≥.9
AGFI	.937	>.8

The results achieved a 'P'[26] value greater than Arbuckle and Wothke's (1999, p. 74) criteria of greater than .05, the goodness-of-fit index (GFI) is above the benchmark criteria of .9[27] (Samouel, 1996, p. 88), Hair *et al.*'s (1998, p. 657) threshold of greater than or equal to .90 for the adjusted[28] goodness-of-fit (AGFI). Thus the model was able to reproduce the original correlation matrix shown in Table 5.4.

Table 5.4 Correlation matrix for CFA

Correlations

	X1	X2	X3	X4	X5	X6	p_r&d
X1_performance	1						
X2_roi	.617	1					
X3_salegrowth	.571	.501	1				
X4_production costs	.287	.250	.110	1			
X5_market focus	.283	.258	.301	.320	1		
X6_assetintensity	.425	.361	.407	.350	.402	1	
X7_r&d	.277	.197	.297	.294	.371	.259	1

[26] A value for testing the hypothesis that the model fits perfectly with the population

[27] Values are between 0 and 1 where 1 equals a perfect fit

[28] Adjusted by the ratio of degrees of freedom for the proposed model to the degrees of freedom for the null model

Assessing the individual loadings all proved to be significant at the 5% level as shown in Table 5.5. Thus, these items are reflected indicators of corresponding performance.

Table 5.5 Regression Weights

Estimate	Estimates	S.E.	C.R.	P - value
Finance ← performance	1000			
Operations ← performance	0.711	0.165	4.309	0.000
P_PERF_1 ← finance	1.000			
P_ASST_1 ← operations	1.211	0.255	4.759	0.000
P_RESE_1 ← operations	1.135	0.271	4.195	0.000
P_SALE_1 ← finance	0.793	0.101	7.817	0.000
P_ROI_1 ← finance	0.839	0.100	8.362	0.000
P_PROD_1 ← operations	1.000			
P_MRKF_1 ← operations	1.332	0.287	4.649	0.000

Summary

The results show that performance does have two sub-dimensions, finance and operations, and therefore it can be combined in a summated scale. The reliability coefficient for the new 7 item performance instrument is Cronbach α = 0.79 which exceeds Nunnally's (1978) Cronbach α = 0.70 value guideline. Finance measures (P_fin)[29] and operational measures (P_ops)[30] were summated to construct an overall performance measure, P_finops[31]. The

[29] P_fin = (P_perfor + P_roi + P_Salesgr)/3

[30] P_ops = (P_prdco+P_mktfoc+P_research+P_asstin)/4

[31] P_finops = (P_prdco + P_mktfoc + P_research P_Fin + P_asstin P_perfor + P_roi + P_Salesgr)/7

overall performance measure, P_finops, met normality conditions with a mean of 3.28 and a standard deviation of .68.

5.1.2 Strategic type

This section details the classification of organisations in the current study into typologies of strategic orientation. Based on Miles and Snow's (1978,1994, 2003) strategic typologies, each respondent was categorised in terms of their organisation's strategic orientation using Conant *et al.*'s (1990) survey instrument and guidelines.

Conant *et al.*'s (1990) guidelines are based on a 'majority rule' decision structure, whereby organisations are classified depending on the response option by strategic type that is selected most often. In case of a tie, Conant *et al.*'s (1990) guidelines for ties were used in classifying the organisation:

i. Ties involving *reactor* response options result in the organisation being categorised as a *reactor*,
ii. Ties between *defender*, *prospector* and/or *analyzer* response options result in the organisation being classified as an *analyzer*.

The guidelines for ties are theoretically anchored: a reactor responds inconsistently to the challenges of the adaptive cycle for example, like a defender when conducting environmental surveillance, like a prospector when developing new products and an analyzer when controlling and evaluating performance, which is why ties involving reactors result in that classification (Conant *et al.*, 1990). Analyzers, according to Miles and Snow (1978, 1994), are hybrid organisations that possess both defender and prospector characteristics which is why ties involving analyzers result in that classification. Twenty-seven cases resulted in a tie and were classified as shown in Table 5.6.

Table 5.6 Classification of Strategic Orientation Ties

Type of Tie	Resultant Classification	No. of cases
Between Prospector, Analyser and Defender	Analyzer	15
Including Reactor	Reactor	12
Total		27

Using the majority and tie rules, respondents were categorises into four possible types as shown in Table 5.7.

Table 5.7 Strategic Orientation

SO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unclassified	2	1.2	1.2	1.2
	Reactors	28	17.4	17.4	18.6
	Defenders	43	26.7	26.7	45.3
	Analyzers	50	31.1	31.1	76.4
	Prospectors	38	23.6	23.6	100.0
	Total	161	100.0	100.0	

The results indicate that the reactor group is the smallest group, which as its name indicates is an unstable type (Miles and Snow, 1978, 1994, 2003) and is of less interest to the current research than the three stable types. The analysis also revealed two unclassified cases. To determine whether unclassified cases should be removed or reclassified, the means of unclassified responses to overall financial performance was compared with that of reactors, defenders, analysers and prospectors, respectively. No other criterion was used. The results show that the mean for unclassified cases equal the means of analyzers on performance, and therefore, the decision was taken to reclassify the two cases as analyzers.

5.1.3 Executive values

This section outlined the categorisation of respondents into executive value groups. To try to achieve convergent validity, two instruments were used for the categorisation of respondents into the Maslovian (1970) values groups of *inner directed, outer directed* and *sustenance driven* value groups (refer to section 4.2.3). The Values Modes (VMs) instrument developed by Cultural Dynamics is discussed below followed by the List of Values (LoV) instrument by Kotey and Meredith (1997).

5.1.3.1 Values modes

Respondent were categorised into the value groups of i*nner directed, outer directed* or *sustenance driven* groups based on Maslow's (1970) theory firstly using the Values Modes (VMs) instrument developed by Cultural Dynamics, a social research consultancy that has been measuring values for over 30 years. As Cultural Dynamics owns the proprietary algorithm that allows classification of respondents into one of the three Maslovian values groups, they carried out the categorisation. The results (Table 5.9) show a small percentage of managers were categorised as sustenance driven, which supports published (e.g. Wilkinson and Howard, 1997) and unpublished reports (Cultural Dynamics) on the decline of the working age population in western society who espouse traditional values.

Table 5.9 Values Modes

VM

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	1.2	1.2	1.2
	2.00	63	38.7	38.7	39.9
	3.00	98	60.1	60.1	100.0
	Total	163	100.0	100.0	

Where 1 = sustenance drive, 2 = outer directed and 3 = inner directed

5.1.3.2 List of Values (LoV) instrument

Kotey and Meredith's (1997) 28 item personal values scale (Cronbach $\alpha = 0.87$ for the current research) was also used to categorise managers into value groups by subjecting it to principal components analysis (PCA). Prior to the PCA an assessment was made of the amenability of the data to factor analysis. An inspection of the correlation matrix revealed coefficients of .3 and above as recommended by Pallant (2003). The KMO was .773 which exceeds the recommended value of .6 (Kaiser, 1970, 1974). The Bartlett's Test for Sphericity reached statistical significance at the .000 level over the statistically significant recommended threshold of $p < .05$ (Pallant, 2003) confirming the factorability of the correlation matrix.

Relying on Maslow's (1970) theory of *inner directed* (ID), *outer directed* (OD) and *sustenance driven* (SD) value groups, the *a priori* criterion (Hair *et al.*, 1998, p.104) was used to derive a 3 factor extraction[32]. The three factor solution explained a total of 40.62% of the variance. The rotated solution (Table 5.10) revealed the presence of 'simple structure' (Thurstone, 1947) with all three factors showing a number of strong loadings. Hair *et al.'s* (1998, p. 112) guideline for assessing statistically significant factor loadings was followed which recommends a .45 factor loading for the sample size of this current research (n = 163). Although *Achievement* has a factor loading of below .45, at .449 it was decided to include it due to its importance as a value and its close proximity to the cut-off criteria.

This current research appears to be the first empirical study of Maslovian value groups in a managerial business context and therefore comparing results with other studies is not possible.

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[32] The initial orthogonal rotation through Varimax revealed 8 factors with eigenvalues greater than 1, explaining 63% of the variance and an inspection of the scree plot (Annex 5) revealed a break after the 5th factor. Maslow's theory also predicts two transitional sub-groups along with the three main groups, which may explain the existence of 5 factors and the relatively low variance explained (40.62%) by the 3 factor solution. There is an indication of the predicted sub groups, for example, the values of the sub group between the *sustenance driven* and *outer directed* segments, *money*, *energy* and *security* has a Cronbach $\alpha = 0.51$. More work is needed on the issue of transitional groups and the decision was taken to focus on the three main value groups.

To assess face validity, the 3 factor solution was assessed by Cultural Dynamics and they verified that the results are what they would expect. Moreover, the result (Table 5.10) was consistent with an interpretation of what the Hierarchy of Needs theory predicts. Even when only the relatively few core values theoretically predicted by the theory are assessed for reliability, the results support the theory:

i. The core *sustenance driven* traditional values of *loyalty, trust, compassion* and *affection* of Factor 1 has a Cronbach $\alpha = 0.79$,

ii. The core of the *inner directed* entrepreneurial values of *innovation, risk* and *creativity* of Factor 2 has a Cronbach $\alpha = 0.72$,

iii. The core esteem-seeking, outer directed values of *power, prestige, ambition* and *aggression* of Factor 3 has a Cronbach $\alpha = 0.64$.

To establish convergent validity, the degree to which the two attempts to measure executive values (VMs and LoV) are related, a discriminant analysis was carried out to determine whether Values Modes (VMs) groups for the *outer directed* (n = 62) and *Inner directed* (n = 94) groups could be predicted by factor scores from the factor analysis of the 28 item LoV scale which resulted in a percentage of respondents correctly classified by the discriminant function (hit ratio) of 64%. A chi-square test was also carried out to assess the degree of association between group membership classification by VMs and summated scores from the factor analysis of the LoV scale which resulted in no association at the $p < .05$ level ($df = 2$, Chi-square = 5.24, $p = .07$).

Table 5.10 Specified 3 factor solution of List of Values at .45 factor loading cut off

Rotated Component Matrix[a]

	Component		
	1 = SD	2 = ID	3 = OD
v_trustSD1	.755		
v_compassionSD2	.723		
v_affectionSD3	.669		
v_loyaltySD4	.667		
v_natsecuritySD5	.648		
v_responsibilitySD6	.600		
v_honestySD7	.582		
v_leisureSD8	.549		
v_energySD9	.532		
v_socialprotectionSD10	.515		
v_equalitySD11	.485		
v_religion			
v_optimism			
v_ability			
v_innovationID1		.791	
v_riskID2		.691	
v_creativityID3		.685	
v_competitionID4		.495	
v_autonomyID5		.460	
v_prestigeOD1			.637
v_ambitionOD2			.624
v_powerOD3			.614
v_aggressivenessOD4			.605
v_moneyOD5			.537
v_securityOD6			.514
v_achievementOD7			.449
v_hardwork			
v_growth			

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

5.1.4 Goal orientation

In this section, the process of categorising goal orientation is discussed. Firstly, a replication of Zahra's (1987) method of goal classification using a Kruskal-Wallis nonparametric one-way ANOVA is assessed, and then a one-way parametric ANOVA to reflect the normal distributional properties of the current study is examined. Next, an exploratory factor analysis of the goal items is conducted to improve goal categorisation. Finally, a categorisation of

goals based on the significant goal items that emerged from both ANOVA tests is investigated.

5.1.4.1 One-way ANOVA: Replication of Zahra's Study

Firstly, given the distributional properties of Zahra's (1987) study, a nonparametric Kruskal-Wallis was used to identify whether there was a significant difference in goals across the four strategic types. This was replicated in this study to assess whether goal categories across strategic types gave a similar match. Secondly, given the normal distributional properties of the data in the current study one-way parametric ANOVA was also used for the same purpose. The result of both approaches proved to be the same and described below.

The 13 item goal scale derived from Zahra's (1987) 10-item scale, including two items from Eisenhardt and Bourgeois (1988), *Company prestige* and *Stock price*, and one from the author, *Environmental sustainability* has a Cronbach $\alpha = 0.74$. Replicating Zahra's (1987) analysis method, a Kruskal-Wallis nonparametric one-way ANOVA was conducted to categorise goals, see Table 5.11. Subjects were divided into four groups according to their strategic orientation type (*reactor*, *defender*, *analyzer* and *prospector*) and goals were rank ordered according to strategic type. Although there were fewer significant goals than in Zahra's (1987) study, there were statistically significant differences for the prospector goals of *Growth* at the $p < .01$ and *Innovation* at the $p < .001$.

Table 5.11 Goals Emphasised by Four Strategic Groups

Goals	Overall Sample		Reactors	Defenders	Analyzers	Prospectors	χ^2
	$\overline{X}$	s	$\overline{X}$ Rank	$\overline{X}$ Rank	$\overline{X}$ Rank	$\overline{X}$ Rank	
Profitability	4.3	1.7	90.6	81	81.4	77.8	1.663
Employee Welfare	3.4	.91	65.4	86.1	84.4	81.7	4.312
Operational Efficiency	3.9	.86	95.5	79.4	82.2	75.2	3.702
Innovation	3.5	1.1	69.2	63.8	82	108.5	**22.854*** **
Growth	3.8	1.1	60.4	76.9	87.5	93.5	**10.327** **
Market Share	3.4	1.2	78.3	81	75.2	88.5	2.027
Financial Stability	4.2	.85	81.2	75.9	84.7	83.7	1.104
Company Prestige	3.7	1.1	67.7	83.8	95.4	81.2	3.110
Response to Social Issues	3.0	1.2	69	81.1	86.2	84.2	2.745
Environmental Sustainability	2.8	1.3	79.2	82.3	77.9	80.8	.240
Competitive Position	3.9	1.1	75.8	77.7	77.8	90	2.531
Service Quality	4.3	.81	76.4	81.9	84.4	78.7	.779
Stock Price	2.7	1.5	70.9	76.2	74.9	74.3	.250

(*) $p < .05$ (**) $p < .01$ (***) $p < .001$

A comparison between Zahra's (1987) study of chief administrators of health care organisations in the US and the finding of this current research is given is outlined below and in Table 5.12.

Table 5.12 Summary comparison of goal orientation

Research	Reactor	Defender	Analyzer	Prospector
Zahra (1987)	**No pattern** Financial stability Profitability Market share Strong competitive position	**Internally focused** Service quality Profitability Employee welfare Financial stability	**Blend*** Market share (p) Strong competitive - position (p) Financial stability(d) Response to social issues	**Growth** Growth Strong competitive - position Profitability Market share
Current research	**No pattern** *Market share* *Financial stability* *Strong competitive position*	**Internally focused** *Profitability* *Financial Stability* **Stock price** **Environmental - Sustainability**	**Blend** *Market share* **Service quality**(d) **Employee welfare**(d) **Stock price**(d) **Company prestige**	**Growth** *Profitability* **Innovation**

Italics = limited support in the current research, **Bold** = additional goal items

**Prospector* (p) and *defender* (d)

Regarding the principle difference between both studies were:

i. For *internally focused* defenders there were high ranked mean scores for *stock price* and *environmental sustainability* but not for *financial stability and profitability,*

ii. For *growth* goal prospectors, a high ranking mean score for the *innovation* goal item with a statistically significant difference at the $p < .001$ level but no high ranking mean score for *profitability,*

iii. For *analyzers* pursuing a blend of *prospector* and *defender*-type goals, high ranking mean scores for *response to social issues, financial stability, company prestige, employee welfare, service quality* and *stock price* but not for *market share,*

iv. For reactors, high mean rank for *operational efficiency* but not for *market share, financial stability* or *competitive position.*

Given that the goal item data in the current study conformed to the normal distributional properties of +/- 1 for Skewness and +/- 2 for Kurtosis, a one-way parametric ANOVA was also conducted to explore the impact of strategic types on goals. Subjects were divided into groups according to the strategic orientation of respondents' organisations (Group 1: reactors; Group 2: defenders; Group 3: analyzers; Group 4, prospectors). There was a statistically significant difference at the $p < .05$ level for *Growth* [$F(3, 156) = 3.942$, $p = .019$] and $p < .000$ *Innovation* [$F(3, 156) = 8.945$, $p = .000$] goals (see Table 5.13). Post-hoc comparisons using the Tukey HSD test indicate that the mean score for prospectors ($\overline{X} = 4.13$, $s = .844$) was significantly different than reactors ($\overline{X} = 3.32$, $s = .905$) on the *Growth* goal and the mean score for prospectors ($\overline{X} = 4.13$, $s = 1.04$) was significantly different than analyzers ($\overline{X} = 3.53$, $s = .857$), defenders ($\overline{X} = 3.07$, $s = .958$) and reactors ($\overline{X} = 3.0290$, $s = .48436$) for the *Innovation* goal.

Table 5.13 Goals by Four Strategic Groups

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
g_profitability	Between Groups	1.549	3	.516	.447	.720
	Within Groups	183.862	159	1.156		
	Total	185.411	162			
g_employwel	Between Groups	4.464	3	1.488	1.838	.143
	Within Groups	127.102	157	.810		
	Total	131.565	160			
g_opsefficiency	Between Groups	2.480	3	.827	1.116	.344
	Within Groups	117.814	159	.741		
	Total	120.294	162			
g_innovation	Between Groups	**25.914**	**3**	**8.638**	**8.945**	**.000*** **
	Within Groups	152.586	158	.966		
	Total	178.500	161			
g_growth	Between Groups	**11.825**	**3**	**3.942**	**3.416**	**.019***
	Within Groups	182.298	158	1.154		
	Total	194.123	161			
g_mrktshare	Between Groups	3.444	3	1.148	.785	.504
	Within Groups	228.049	156	1.462		
	Total	231.494	159			
g_financialsta	Between Groups	1.522	3	.507	.703	.551
	Within Groups	113.917	158	.721		
	Total	115.438	161			
g_coprestige	Between Groups	3.830	3	1.277	1.154	.329
	Within Groups	173.685	157	1.106		
	Total	177.516	160			
g_respsocissues	Between Groups	3.203	3	1.068	.779	.507
	Within Groups	216.574	158	1.371		
	Total	219.778	161			
g_environsustain	Between Groups	.402	3	.134	.084	.969
	Within Groups	247.346	155	1.596		
	Total	247.748	158			
g_competposition	Between Groups	2.835	3	.945	.842	.473
	Within Groups	175.140	156	1.123		
	Total	177.975	159			
g_servqual	Between Groups	1.043	3	.348	.438	.726
	Within Groups	125.599	158	.795		
	Total	126.642	161			
g_stockprice	Between Groups	.739	3	.246	.104	.957
	Within Groups	339.342	144	2.357		
	Total	340.081	147			

(*) $p < .05$ (**) $p < .01$ (***) $p < .001$

Both one-way ANOVA tests produced the same result which showed that the current study could not reproduce the same results as Zahra's goal categorisation, i.e. *No pattern* = Reactor, *Internally focused* = Defender, *Blend* = Analyzer and *Growth* = prospector (for a comparison of goal orientation results between Zahra's (1987) study and the current study see Table 5.12), and therefore, an alternative method for categorising goals for use in the overall model was sought.

5.1.4.2 Factor analysis of goal items

A factor analysis of the 13 item goal scale was conducted to explore an alternative underlying structure of the goal items. The suitability of the data for factor analysis was assessed. The KMO value was .735 exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Bartlett's Test of Sphericity reached statistical significance at the $p < .001$ level supporting the factorability of the correlation matrix. Orthogonal rotation through Varimax revealed 3 factors with eigenvalues exceeding 1 explaining a total of 56% of the variance with Factor 1 contributing 26.01%, Factor 2 contributing 20.36% and Factor 3 contributing 9.26%. An inspection of the screeplot revealed a clear break after the third factor. The rotated solution (Table 5.14) revealed the presence of 'simple structure' (Thurstone, 1947) with all three factors showing loadings above Hair *et al.'s* (1998, p. 112) recommended .45 factor loading cut off for a sample size of the current research ($n = 163$).

However, the interpretation of the 3 factor solution was inconsistent with previous research. Whilst Factor 1 appears to be market-oriented goals and Factor 2 appears to be stakeholder-oriented goals, Factor 3 is a mixture of defender goals (*service quality* and *financial stability*) and prospector goals (innovation) that lacked face validity.

Table 5.14 Factor analysis of goals

Rotated Component Matrix[a]

	Component		
	1	2	3
g_mrktshare	.810		
g_profitability	.798		
g_competposition	.735		
g_stockprice	.671		
g_growth	.624		
g_respsocissues		.810	
g_environsustain		.807	
g_employwel		.692	
g_coprestige		.534	
g_opsefficiency			
g_servqual			.731
g_financialsta			.589
g_innovation			.542

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

5.1.4.3 Entrepreneurial and non-entrepreneurial goal categorisation

Following the results of the two previous attempts at classifying goals, a final method of categorisation was made based on the significant goal items of *growth* ($p < .01$) and *innovation* ($p < .001$) that emerged from both ANOVA tests (see 5.1.4.1). Respondents' organisations were categorised as '*entrepreneurial*' if they received a 4 or 5 for both *growth* and *innovation* goals or otherwise categorised as '*non entrepreneurial*'. An independent–samples t-test was conducted to compare the performance scores for entrepreneurial and non entrepreneurial organisations. There was a significant difference in scores for *entrepreneurial* ($\overline{X} = 3.6$, s = .63) and *non entrepreneurial* organisations [$\overline{X} = 3.1$, s = .66; t(134) = -3.83, p = .000]. The null hypothesis H_O : that entrepreneurial and non-entrepreneurial goal orientation have equal means is rejected and the alternative hypothesis H_A that organisations with entrepreneurial goals will outperform those with non-entrepreneurial goals is accepted at the $p < .001$ level. This hypothesis supersedes the previous hypothesis H3b "*Growth goal orientation* will have the greatest impact on performance", which is no longer relevant (see section 3.2.1.3). See Table 5.15 for breakdown of goal categorisation by strategic orientation.

It was decided that this method of classifying goals was the most satisfying out of the three approaches because of its simplicity (parsimony)—the goal classification is independent of the strategic type and therefore not solely a reflection of the *strategic orientation* construct, unlike Zahra's approach—and because of its ability to differentiate respondents by goal groups on performance.

Table 5.15 Goal categorisation by strategic orientation

Strategic orientation * goal categorisation Crosstabulation

			goal categorisation		
			non entrepreneurial	entreprenurial	Total
Strategic orientation	Reactor	Count	23	5	28
		% within Strategic orientation	82.1%	17.9%	100.0%
	Defender	Count	34	9	43
		% within Strategic orientation	79.1%	20.9%	100.0%
	Analyzer	Count	32	19	51
		% within Strategic orientation	62.7%	37.3%	100.0%
	Prospector	Count	16	24	40
		% within Strategic orientation	40.0%	60.0%	100.0%
Total		Count	105	57	162
		% within Strategic orientation	64.8%	35.2%	100.0%

5.1.4.4 Summary

Three approaches were conducted to categorise goals:

i. A one-way ANOVA replicating Zahra's (1987) method of goal classification using a Kruskal-Wallis nonparametric analysis and a one-way parametric ANOVA of the 13 item goal scale (refer to Table 5.11) that produced the same results,

ii. An exploratory factor analysis of the goal items (refer to Table 5.14), and

iii. A categorisation of goals into *entrepreneurial* and *non-entrepreneurial* groups based on the significant goal items of *growth* and *innovation* (refer to Table 5.11 and Table 5.13).

These approaches were conducted in order to categorise respondents by goal orientation as required by the ANOVA technique. The latter approach (iii) was chosen for the purposes of hypothesis testing.

5.1.5 Contextual variables

The contextual variables in the survey are *Managerial*, *Firm* and *Industry characteristics* operationalised using Thomas and Ramaswamy's (1997) definitions. The contextual variables were categorised as required by the ANOVA technique, which is outlined below.

5.1.5.1 Managerial characteristics

Managerial characteristics comprise *age*, *tenure*, *level of education* and *business experience*. Consistent with Pallant's (2001) recommendation for dividing respondents' scores into equal groups for ANOVA, a frequencies analysis was conducted on the distribution of scores for the continuous variables of *age*, *tenure*, *level of education* and *business experience,* and two cut off points were specified, one at the 33.33 percentile and the other at the 66.67 percentile. This operation created three groups for each variable:

i. *Age* (years): Young = 0 - 33; Middle aged = 34 - 39; Older = 40+
ii. *Tenure* (months): Short = 0 - 34; Medium = 35 - 72; Long = 73+
iii. *Level of education* (years following secondary school including postgraduate qualifications[33]): Little = 0 - 3; Some = 4; Lots = 5+
iv. *Business experience* (total years): Short = 0 - 8; Medium = 9 - 15; Long = 16+

Each respondent was classified into one of these groups (1, 2 or 3) for each managerial characteristic.

[33] Post graduate qualifications were given 2 years education

5.1.5.2 Firm characteristics

Firm age and *size* was categorised using the same process as above:

Firm age (years): Short = 0 - 10; Medium = 11 - 58; Long = 59+

Firm size (number of employees): Small = 0 - 119; Medium = 120 - 3000; Large = 3001+

Each respondent was classified into one of these groups (1, 2 or 3) for each firm characteristic.

5.1.6 Industry characteristics

Industry characteristics were classified using Thomas and Ramaswamy's (1996) definition of the degree of product/service differentiation on a continuum from undifferentiated products and services (e.g. petroleum refining) to highly differentiated product/services (e.g. electronics). The categorisation was compressed from 5 to 3 values to sharpen the distinction between differentiation and make the scale more suitable for the ANOVA, a procedure used in a number of studies (Pallant, 2001; Truch, 2001), Table 5.16.

Table 5.16 Recoding of Industry characteristics

Industry characteristics scale	Combined item measure	Recode of industry characteristics scale
1 & 2	Undifferentiated	1
3	Some differentiation	2
4 & 5	Differentiated	3

Each respondent was classified into one of these groups (1, 2 or 3) for each industry characteristic. A crosstabulation of industry differentiation and strategic type (Table 5.17) reveals what one would expect based on an interpretation of Miles and Snow's (1987, 1994, 2003) theory that in undifferentiated industries there would be an over representation of organisations trying to defend their product/service domain whilst in a differentiated industry environment there would be an over representation of organisations pursuing an entrepreneurial strategy.

Table 5.17 Crosstabulation of industry differentiation by strategic orientation

Industry differentiation * Strategic orientation Crosstabulation

			Strategic orientation				
			Reactor	Defender	Analyzer	Prospector	Total
Industry differentiation	.00	Count	2		1		3
		% within Industry differentiation	66.7%		33.3%		100.0%
	Undifferentiated	Count	8	15	7	7	37
		% within Industry differentiation	21.6%	40.5%	18.9%	18.9%	100.0%
	Some differentiation	Count	12	11	13	8	44
		% within Industry differentiation	27.3%	25.0%	29.5%	18.2%	100.0%
	Differentiated	Count	6	17	31	25	79
		% within Industry differentiation	7.6%	21.5%	39.2%	31.6%	100.0%
Total		Count	28	43	52	40	163
		% within Industry differentiation	17.2%	26.4%	31.9%	24.5%	100.0%

5.1.7 Summary

This section has outlined the process of offering a reliable and valid ratio metric dependent variable for *performance* and categorising the independent variables of *strategic-*, *executive values-* and *goal orientation* and *managerial-*, *firm-* and *industry characteristics* required by the hypothesis testing statistical technique, ANOVA. The next chapter will cover the analysis process and findings.

5.2 Analysis process and findings

In this section the process of testing the model and hypotheses is explained and its findings presented. The **first stage** of model and hypothesis testing focuses on the main and interaction effects on performance of *strategic-*, *executive values-* and *goal orientation* without the contextual variables. Following the result of the first stage of model and hypothesis testing which indicated that only *strategic orientation* had a significant impact on performance, the **second stage** included testing the overall model that consisted of *strategic-*, *executive values-* and *goal orientation* with the contextual variables of *managerial characteristics* represented by *tenure* and *industry characteristics* produced the most significant estimates which are presented. This is followed by a summary and comparison of the results of the first and second stage of testing.

5.2.1 First stage testing: Without contextual variables

Firstly, the hypotheses below concerning the main and interaction effects of *strategic*, *executive values* and *goal orientation* are tested as shown in path diagram Figure 5.2:

Strategic orientation
H1a *Strategic orientation will have an impact on performance*
H1b *Prospectors will have the greatest impact on performance*

Executive values orientation
H2a *Executive value orientation will have an impact on performance*
H2b *An Inner directed executive value orientation will have the greatest impact on performance*

Goal orientation
H3 *Goal orientation will have an impact on performance*

Strategic and executive value orientation alignment
H4 *Strategic and executive values orientation will have an impact on performance*

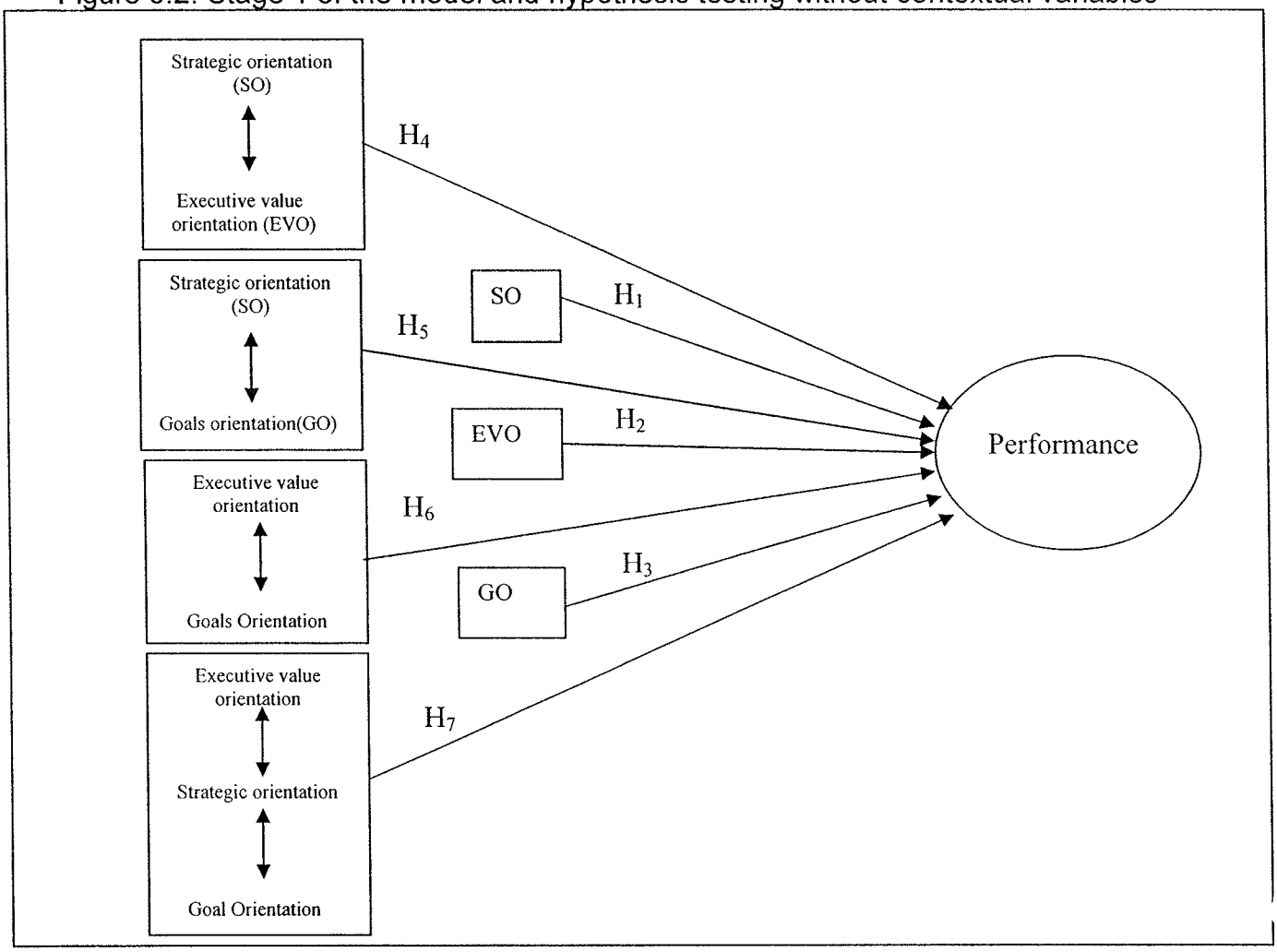
Strategy and goal orientation alignment
H5 *Strategic and goal orientation alignment will have an impact on performance*

Executive value and goal orientation alignment
H6 *Executive value and goal orientation alignment will have an impact on performance*

Strategic, executive values and goal orientation alignment

H7 Strategic, executive value and goal orientation alignment between will have an impact on performance

Figure 5.2: Stage 1 of the model and hypothesis testing without contextual variables



5.2.2 Main and interaction effects of strategic, values and goal orientation without contextual variables

A between-groups analysis of variance was conducted to investigate the impact of strategy, executive values and goal orientation on performance. Subjects were divided into groups according to the strategic orientation of their organisation (Group 1: reactors; Group 2: defenders; Group 3: analyzers; Group 4, prospectors), executive values orientation[34] (Group 1:

[34] The sustenance driven group was not tested due to their low number in the survey (n = 2)

outer directed; Group 2: inner directed) and goal orientation (Group 1: entrepreneurial; Group 2: non-entrepreneurial).

Table 5.18 Between-subject effects of strategic, executive values and goal orientation without contextual variables

Tests of Between-Subjects Effects

Dependent Variable: P_FINOP3

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	14.869[a]	15	.991	2.472	.003
Intercept	824.400	1	824.400	2055.465	.000
SO	**4.007**	**3**	**1.336**	**3.330**	**.022**
VM	.396	1	.396	.987	.323
GOALCAT	**1.525**	**1**	**1.525**	**3.803**	**.054**
SO * VM	.109	3	.036	.090	.965
SO * GOALCAT	.198	3	.066	.165	.920
VM * GOALCAT	.169	1	.169	.421	.517
SO * VM * GOALCAT	1.338	3	.446	1.112	.347
Error	47.728	119	.401		
Total	1514.380	135			
Corrected Total	62.597	134			

a. R Squared = .238

In summary of the results (see Table 5.18), there was a statistically significant main effect for strategic orientation [F(3, 119) = 3.330, p = .022] and goal orientation [F(3, 119) = 3.803, p = .054]. Post-hoc comparisons using the Games-Howell test[34] indicate that the mean scores for the analysers ($\overline{X}$ = 3.4812, s = .65528) and prospectors ($\overline{X}$ = 3.5355, s = .67053) were significantly different from the reactors ($\overline{X}$ = 3.0290, s = .48436) and defenders ($\overline{X}$ = 2.9618, s = .67571). The main and interaction effects for executive values did not reach statistical significance. The following Table 5.19 summarises the hypothesis testing conclusions.

[34] The Levene's test of equality of error variances was conducted to test the assumption of equal variance across groups with the result that it was significant ($p < .05$) at $p = .017$. The H_0 that the error variance is equal across groups is rejected and the H_A that group variances are not equal is accepted. Field's (2000) recommendation of using the Games-Howell post hoc test when group variances differ was followed.

Table 5.19: Summary of stage one analysis

Hypothesis	**Statistical findings of hypotheses testing without contextual variables**
H1a Strategic orientation will have an impact on performance	Supported*
H1b Prospectors will have the greatest impact on performance	Supported, modified to include analysers*
H2a Executive value orientation will have an impact performance	Unsupported
H2b An Inner directed executive value orientation will have the greatest impact on performance	Unsupported
H3 Goal orientation will have an impact performance	Supported*
H4 Strategic and executive orientation alignment will have an impact on performance	Unsupported
H5 Strategic and goal orientation alignment will have an impact on Performance	Unsupported
H6 Executive value and goal orientation alignment will have an impact on Performance	Unsupported
H7 Strategic, executive value and goal orientation alignment will have an impact on performance	Unsupported

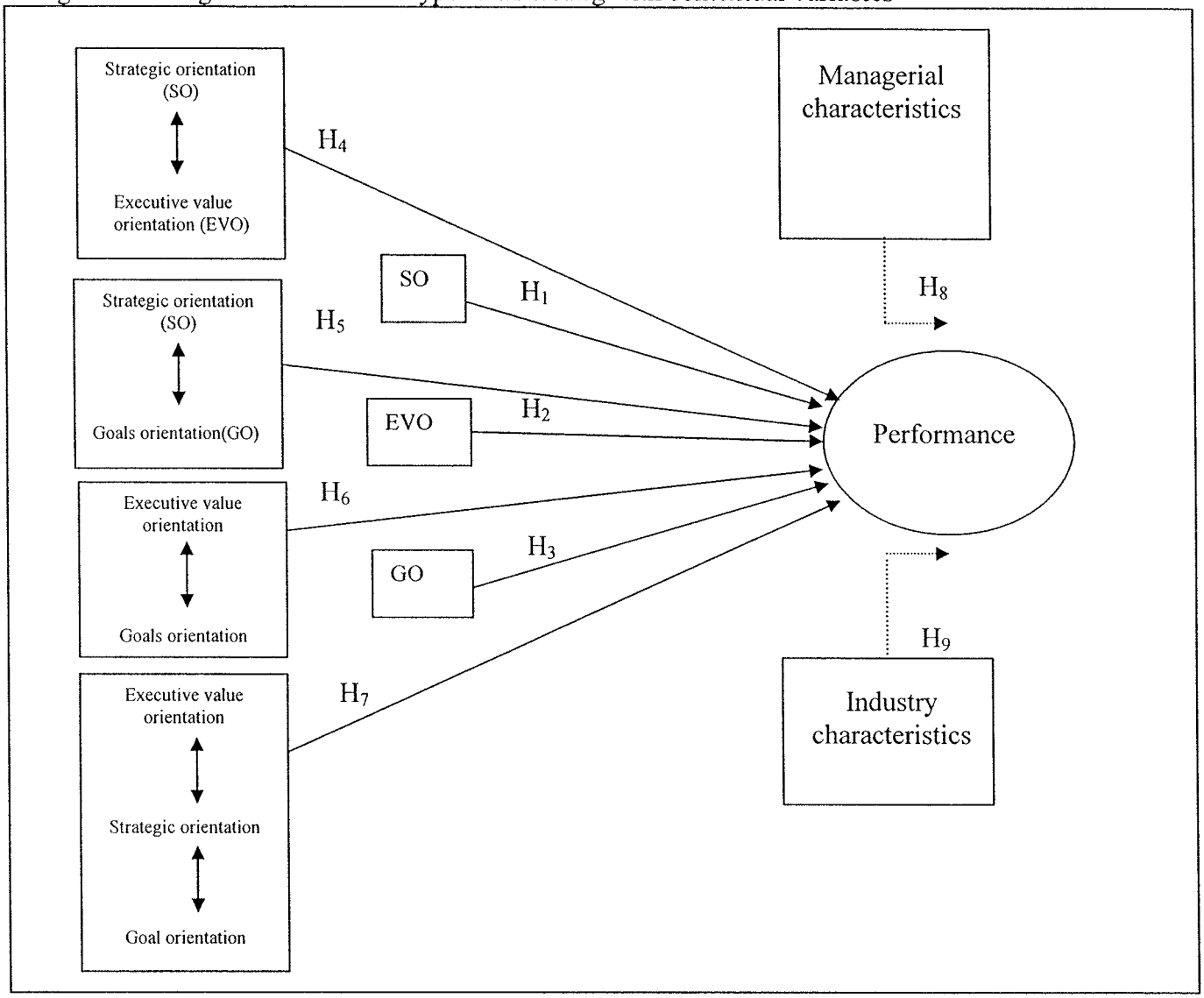
(*) $p < .05$ (**) $p < .01$ (***) $p < .001$

As can be seen, hypotheses H1a, H1b and H3 are supported. In summary, there was a statistically significant main effect for strategic and goal orientation. Post hoc tests revealed analysers and prospectors significantly outperformed reactors and defenders. There was no significant difference between analysers and prospectors or defenders and reactors. The null hypothesis H_O of equal means is rejected and the alternative hypothesis H_A that proposes prospectors will outperform all other strategic types is modified to include analyzers. Main and interaction effects for executive values did not reach statistical significance.

The next section investigates the impact of strategic, executive values and goal orientation in the context of managerial and industry characteristics.

5.2.3 Second stage testing: strategic-, executive values- and goal orientation with contextual variables.

Figure 5.3: Stage 2 of model and hypothesis testing with contextual variables



The initial results that found only strategic and goal orientation had a significant impact on performance caused a reconsideration of the literature. Whilst previous literature indicated that firm and industry characteristics were contextual variables tested separately from other research variables, a new premise emerged that testing the overall model including strategic, executive values and goal orientation in the context of the contextual variables would have a greater impact on performance than without contextual variables.

The interaction effect between the research and contextual variables was not considered in Thomas and Ramaswamy's (1997) study because of their objective to prove/disprove that the alignment between managers and strategic orientation had a greater effect on performance than the 'contextual constraints' of organisational age, size or industry membership[36] that was confirmed by their research[37]. The purpose of the second stage of model and hypothesis testing process was to test the overall model. The variables included in the overall model are explained before the results of the second stage of hypothesis testing are presented.

In this section, the overall model is tested. To arrive at the contextual variables to be included in the overall model (with strategic, executive values and goal orientation), the impact of managerial, firm and industry characteristics were tested for their impact on performance through testing hypotheses 8-10[38]. The contextual variables were tested in isolation of the other research variables, which is reviewed in Annex 5. These tests revealed:

i. The main effect for managerial characteristics did not reach significance but the interaction effect for tenure and age [$F(4, 75) = 2.309$, $p = .066$] reached significance at $p < .10$,

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[36] Thomas and Ramaswamy's (1997) research design was devised to address conjecture by the population ecologists (e.g. Boeker, 1989; Stinchcombe, 1965) that industry membership, firm size and age are more important determinants of performance than strategy or managers. The determinists' argument is based on the belief that as a firm matures and grows in size it becomes structured, formalised and routinised thus minimising the role of managers or strategies. Hence, they argue that an organisation's response to environmental shifts is shaped by institutionalised process not managers' strategic choices (Thomas and Ramaswamy, 1997).

[37] The leadership-strategy relationship had a greater impact on performance ($R^2 = 0.29$) than either firm size ($R^2 = 0.06$), age ($R^2 = 0.18$) or industry characteristics ($R^2 = 0.07$)

[38] H8a Managerial characteristics will have an impact on performance
H8b Managerial characteristics and strategic orientation will have an impact on performance
H9 Firm characteristics will not have an impact on performance
H10 Industry characteristics will not have an impact on performance

ii. There was a statistically significant main effect for industry characteristics [F(2, 131) = 3.565, p = .031],

iii. The main effect for firm characteristics of age [F(2, 122) = 1.535, p = .220] and size [F(2, 122) = 1.154, p = .319] did not reach significance but the interaction effect of age and size did [F(4, 122) = 2.312, p = .061] at the 10% level of significance.

Based on these results, it was decided to include industry characteristics in the overall model due to its significant impact on performance and that managerial characteristics would be represented by tenure and age to be tested separately.

5.2.4 Main and interaction effects of strategic-, executive values- and goal orientation, tenure and industry characteristics

Tenure and industry characteristics were put in an overall model with strategic-, executive values- and goal orientation and industry characteristics and the results are presented. Age, which had an interaction effect with tenure, was also tested replacing tenure in the model; however, the results with tenure are presented because they achieved the highest R squared (.712) compared to age (.637) and had the most significant results.

A between-groups analysis of variance was conducted to test the overall model by investigating the impact of strategic, executive values and goal orientation, tenure and industry characteristics on performance. Subjects were divided into groups according to strategic, executive values and goal orientation, tenure, industry product/service differentiation. The results are presented in Table 5.20, summarised and reviewed in Table 5.21 and a summary of both stage one and two is included in Table 5.22.

Table 5.20 Between-subject effects of strategic, executive values and goal orientation, tenure and industry differentiation

Tests of Between-Subjects Effects

Dependent Variable: P_FINOPS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	44.064[a]	78	.565	1.720	.018
Intercept	689.870	1	689.870	2100.175	.000
SO	**5.875**	**3**	**1.958**	**5.961**	**.001**
VM	**1.724**	**1**	**1.724**	**5.248**	**.026**
GOALCAT	**.879**	**1**	**.879**	**2.677**	**.108**
TENCAT	.891	2	.445	1.356	.266
INDIFF	.253	2	.126	.385	.683
SO * VM	**2.325**	**3**	**.775**	**2.360**	**.082**
SO * GOALCAT	**2.821**	**3**	**.940**	**2.863**	**.045**
VM * GOALCAT	**1.921**	**1**	**1.921**	**5.848**	**.019**
SO * VM * GOALCAT	.322	1	.322	.980	.326
SO * TENCAT	3.156	6	.526	1.602	.165
VM * TENCAT	**1.649**	**2**	**.825**	**2.511**	**.091**
SO * VM * TENCAT	.083	2	.041	.126	.882
GOALCAT * TENCAT	1.039	2	.520	1.582	.215
SO * GOALCAT * TENCAT	**1.144**	**1**	**1.144**	**3.483**	**.067**
VM * GOALCAT * TENCAT	.051	1	.051	.154	.696
SO * VM * GOALCAT * TENCAT	.000	0	.	.	.
SO * INDIFF	2.175	6	.363	1.104	.372
VM * INDIFF	**1.277**	**2**	**.638**	**1.943**	**.153**
SO * VM * INDIFF	.000	0	.	.	.
GOALCAT * INDIFF	**1.326**	**2**	**.663**	**2.018**	**.143**
SO * GOALCAT * INDIFF	.004	1	.004	.012	.915
VM * GOALCAT * INDIFF	**1.337**	**1**	**1.337**	**4.069**	**.049**
SO * VM * GOALCAT * INDIFF	.000	0	.	.	.
TENCAT * INDIFF	**3.260**	**4**	**.815**	**2.481**	**.055**
SO * TENCAT * INDIFF	**2.953**	**4**	**.738**	**2.248**	**.076**
VM * TENCAT * INDIFF	.722	2	.361	1.098	.341
SO * VM * TENCAT * INDIFF	.000	0	.	.	.
GOALCAT * TENCAT * INDIFF	.053	1	.053	.163	.688
SO * GOALCAT * TENCAT * INDIFF	.000	0	.	.	.
VM * GOALCAT * TENCAT * INDIFF	.065	1	.065	.199	.657
SO * VM * GOALCAT * TENCAT * INDIFF	.000	0	.	.	.
Error	17.738	54	.328		
Total	1495.196	133			
Corrected Total	61.802	132			

a. R Squared = .713

Strategic orientation = SO; Executive values orientation = VM; Goal orientation = GOALCAT
Tenure = TENCAT; Industry characteristics = INDIFF

5.2.5 Results of overall model

A summary of the results in the context of the overall model (Table 5.21) is presented in order of impact on performance from greatest to least:

At the $p < .05$

i. Strategic orientation[39] [$F(3, 54) = 5.961$, $p = .001$]

ii. Executive values and goal orientation alignment[40] [$F(1, 54) = 5.848$, $p = .019$]

iii. Executive values orientation [$F(1, 54) = 5.248$, $p = .026$]

iv. Strategic and goal orientation alignment [$F(3, 54) = 2.863$, $p = .045$)]

v. Executive values, goal orientation and industry characteristics alignment [$F(1, 54) = 4.069$, $p = .049$]

vi. Tenure and industry characteristics alignment [$F(4, 54) = 2.481$, $p = .055$]

At the $p < .10$

vii. Strategic, goal orientation and tenure alignment [$F(1, 54) = 3.483$, $p = .067$)]

viii. Strategic orientation, tenure, industry characteristics alignment [$F(4, 54) = 2.248$, $p = .076$)]

ix. Strategic and executive values orientation alignment [$F(3, 54) = 2.360$, $p = .082$]

x. Executive values orientation and tenure alignment [$F(2, 54) = 2.511$, $p = .091$]

xi. Goal orientation [$F(1, 54) = 2.677$, $p = .108$)]

At the $p < .15$:

xii. Goal orientation and industry characteristics [$F(2, 54) = 2.018$, $p = .143$)]

xiii. Executive values orientation and industry characteristics [$F(2, 54) = 1.943$, $p = .153$)]

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[39] The Levene's test of equality of error variances was significant at $p = .001$ and the Games-Howell post hoc test for strategic orientation produced the same results as the previous test of strategic orientation without contextual variables which found that the mean scores for analyzers ($\overline{X} = 3.4812$, $s = .65528$) and prospectors ($\overline{X} = 3.5355$, $s = .67053$) were significantly different from the reactors ($\overline{X} = 3.0290$, $s = .48436$) and defenders ($\overline{X} = 2.9618$, $s = .67571$)

[40] Alignment = interaction effect

Table 5.21 Summary of second stage of overall model and hypotheses analysis

Hypothesis	Findings of model	Comments
H1a Strategic orientation will have an impact on performance	Supported***	Main effect; interaction effect reached significance with: i. Goal orientation, p = .019 ii. Goal orientation and tenure, p = .076 iii. Executive values orientation, p = .082
H1b Prospectors will have the greatest impact on performance	Support,* modified	Post hoc tests revealed prospectors and analysers outperform reactors and defenders
H2a Executive value orientation will have an impact on performance	Supported*	Main effect, p = .026; interaction effect reached significance with: i. Goal orientation, p = .019 ii. Goal orientation and industry characteristics, p = .049 iii. Strategic orientation , p = .082 iv. Tenure, p = .091 v. Industry characteristics, p = .153
H2b An Inner directed value orientation will have the greatest impact on performance	Unsupported	
H3 Goal orientation will have an impact on performance	Supported at p < .10	Main effect, p = .108; interaction effect reached significance with : i. Executive values orientation, p = .019 ii. Executive values and industry characteristics, p = .049 iii. Strategic orientation and tenure, p = .076
H4 Strategic and executive values orientation alignment will have an impact on performance	Supported at p < .10	p = .082
H5 Strategic and goal orientation alignment will have an impact performance	Supported*	p = .045
H6 Executive value and goal orientation alignment will have an impact performance	Supported*	p = .019; executive value and entrepreneurial goal alignment.
H7 Strategic, executive value and goal orientation alignment between will significantly impact performance	Unsupported	
H8a Managerial characteristics will have an impact on performance	Unsupported	No main effect for tenure. Tenure had an interaction effect with: i. Industry characteristics, p = .055 ii. Executive values orientation, p = .091 iii. Goal orientation, p = .143
H8b Managerial characteristics and strategic orientation alignment will have an impact on performance	Unsupported	No direct impact of tenure and strategic orientation on performance (p = .165). An interaction effect for tenure and strategic orientation reached significance at p < .10 with: i. Goal orientation, p = .067 ii. Industry differentiation, p = .076
H9 Firm characteristics will not have an impact on performance	Not applicable	Firm characteristics were not included in the overall model
H10 Industry characteristics will not have an impact on performance	Unsupported	The main effect for industry did not reach significance (p = .638). An interaction effect reached significance with: i. Executive values and goals, p = .049 ii. Tenure, p =. 055 iii. Strategic orientation and tenure, p = .076

(*) p < .05 (**) p < .01 (***) p < .001

Strategic orientation [F(3, 54) = 5.961, p = .001] had the greatest impact on performance, and prospectors and analysers significantly outperformed defenders and reactors. The performance of the company is best explained by the strategic orientation of the company, and that a prospector or analyser will create more value than defenders or reactors.

The results of the overall model also provide empirical support for the importance of executive values as a research variable in the model and in strategic leadership research. The interaction effect of executive values and goal orientation [F(1, 54) = 5.848, p = .019] and its main effect [F(1, 54) = 5.248, p = .026] have the second and third greatest impact on performance also with an interaction effect for tenure [F(2, 54) = 2.511, p = .091]. In terms of the overall model, company performance is better explained by the values of the executive than managerial characteristics represented by tenure [F(2, 54) = 1.356, p = .266] or industry characteristics [F(2, 54) = .385, p = .683].

Regarding goal orientation, its interaction effect with executive values orientation [F(1, 54) = 5.848, p = .019] and strategic orientation [F(3, 54) = 2.863, p = .045) are the second and fourth greatest significant impact on performance demonstrating that goal alignment is a key variable in the model and leadership-strategy research. An inspection of the profile plots of the estimated marginal means of the executive values and goal orientation interaction (Annex 7) revealed that performance is highest when executive values are aligned with entrepreneurial goals[41]. Therefore, it is the alignment between executive values and entrepreneurial goals that results in a significant impact in performance. It also has important interaction effects with executive values orientation and industry characteristics [F(1, 54) = 4.069, p = .049], strategic orientation and tenure [F(1, 54) = 3.483, p = .067] and a direct effect [F(1, 54) = 2.677, p =

[41] Respondents' organisations were categorised as '*entrepreneurial*' if they received a 4 or 5 for both *growth* and *innovation* goals or otherwise categorised as '*non entrepreneurial*'

.108) on performance. The alignment of executive values with organisational goals has a higher significant impact on performance than executive values or managerial characteristics. The main effects of tenure [F(2, 54) = 1.356, p = .266] failed to reach significance in the overall model although had important interaction effects with industry characteristics [F(4, 54) = 2.481, p = .055 and executive values orientation [F(2, 54) = 2.511, p = .091] which is interpreted in the conclusions chapter.

A comparison between the results of strategic, executive values and goal orientation in stage one without contextual variables and stage two with contextual variables is summarised in Table 5.22.

A comparison of the two stages reveals that the initial premise that the overall model would produce more significant findings than strategic-, executive values- and goal orientation without contextual variables was confirmed. Hypotheses 1 to 6 concerning the performance impact of strategic-, executive values- and goal orientation, strategic and executive values orientation alignment and executive values and goal orientation alignment are supported in the overall model, whereas only hypothesis 1 and 2 concerning strategic orientation and goal orientation is supported without the contextual variables.

The principal difference between the key variables with and without the contextual variables is the role of industry. A comparison between the two models underscores the importance of understanding performance, strategic decisions and the relationship of goals and values in an industry context which is explored further in the final chapter.

Table 5.22 Summary of model and analysis findings

Hypothesis	**Statistical findings of hypotheses out of context**	**Findings in context of overall model**	**Comments**
H1a Strategic orientation will have an impact on performance	Support*	Supported***	In both contexts, the variable with the greatest impact on performance
H1b Prospectors will have the greatest impact on performance	Support* , modified	Support*, modified	Prospectors and analysers outperform reactors and defenders
H2a Executive value orientation will have an impact on performance	Unsupported	Supported*	In context, the third most important factor ($p = .026$) and confirms the study's main hypothesis and Hambrick and Mason's (1984) upper echelon theory. Executive values' importance as a variable in the overall model s indicated by its interaction effect with: i. goal orientation ($p = .019$), ii. goal orientation and industry characteristics ($p = .049$), iii. Strategic orientation ($p = .082$) and tenure ($p = .091$) at $p < .10$.
H2b An Inner directed executive value orientation will have the greatest impact on performance	Unsupported		
H3 Goal orientation will have an impact on performance	Supported*	Supported at $p < .10$	In both contexts, goal orientation had a main effect, and its importance as a variable in the overall model is indicated in its interaction effect with: i. Strategic orientation ($p = .045$), ii. Executive values orientation ($p = .019$), iii. Executive values orientation and industry characteristics ($p = .049$), and iv. Strategic orientation and tenure ($p = .076$) at $p < .10$.

H4 Strategic and executive values orientation alignment will have an impact on performance	Unsupported	Supported at $p <$ .10	In context, the interaction effect of strategic and executive values orientation alignment was $p = .082$.
H5 Strategic and goal orientation alignment will have an impact on performance	Unsupported	Supported*	In context, the 4th most important factor ($p = .045$)
H6 Executive value and goal orientation alignment will have an impact on performance	Unsupported	Supported*	The second most important impact on performance; the 'soft' factors of values and goal alignment ($p = .019$) has a 'hard' impact on performance.
H7 Strategic, executive value and goal orientation alignment will have an impact on performance	Unsupported	Unsupported	In both contexts, the alignment is not supported.
H8a Managerial characteristics will have an impact on performance	Unsupported, main effect Interaction effect of age and tenure, $p = .062$	Unsupported	Interaction effect of tenure and industry characteristics, $p = .055$ and Executive values, $p = .091$.
H8b Managerial characteristics and strategic orientation alignment will have an impact on performance	Supported**: Main effect of Strategic orientation and Education $p = .003$ Strategic orientation and tenure, $p = .096$ at $p < .10$; Strategic orientation and functional experience, $p = .119$ at $p < .15$	Unsupported	
H9 Firm characteristics will not have an impact on performance.	Unsupported, main effect Firm age and size interaction effect, $p = .055$	Not Applicable	Firm characteristics were not included in the overall model
H10 Industry characteristics will not have an impact on performance	Supported* Industry differentiation (main effect) $p = .026$	Unsupported	In context no direct effect,. However, the importance of understanding an organisation's performance in the context of an industry is indicates in its interaction effect with: i. Executive values and goals ($p = .049$), ii. Tenure ($p = .055$), and iii. Strategic orientation and tenure, ($p = .076$) at $p < .10$

(*) $p < .05$ (**) $p < .01$ (***) $p < .001$

5.2.6 Summary

Performance, strategic-, executive values- and goal orientation and managerial-, firm- and industry characteristics were categorised that was required by the hypothesis testing technique ANOVA. A two stage process of hypothesis testing and analysis was presented which confirmed that the overall model produced more significant results than strategic-, executive values- and goal orientation without the contextual variables.

The results of both stages show that the performance of a company is best explained by the organisation's strategic orientation in the context of the industry. In particular, prospectors and analysers outperform defenders and reactors. Executive values have their greatest performance impact when aligned with entrepreneurial organisational goals. Moreover, executive values have a greater impact on performance than managerial characteristics, goal orientation, firm or industry characteristics.

Chapter 6 Discussion, implications and conclusions

This chapter summarises the findings and offers an assessment of the proposed hypotheses. An interpretation of the results is advanced before identifying the strengths and limitations of the study. A discussion of the research implications is followed by an outline of potential future research. Finally, learning from the research process is drawn before the conclusion.

6.1 The relationship between strategic-, executive values- and goal orientation and performance

Building on Hambrick and Mason's (1984) upper echelon theory and Thomas *et al.* (1991) and Thomas and Ramaswamy's (1997) studies on the leadership strategy-match, this study has focused on the relationship between strategic-, executive values- and goal orientation on performance. In particular, the current research examined the performance impact of goals, executive values, and the contextual variables of managerial, firm and industry characteristics on strategic choice, specifically, the strategic decisions concerning an organisation's strategy, structure and process which form a consistent pattern of action that results in typologies of strategic orientation.

The prime concern was the investigation of the role of executive values in strategic choice and its performance impact. The literature review offered assertions at the conceptual level that managers' personal values affected strategy formulation (Andrews, 1987; Porter, 1980), strategic choices and performance (Hambrick and Mason, 1984; Finkelstein and Hambrick, 1997; Kotey and Meredith, 1997). Previous research based on empirical evidence concerning the relationship between performance and executive values was inconclusive although a tentative relationship between executive values, strategy and performance was indicated by Kotey and Meredith (1997).

6.1.1 The supported hypotheses

The work of Thomas and Ramaswamy (1997) was extended to investigate the relationship between strategic-, executive values- and goal orientation, managerial, firm and industry

characteristics on performance. Using Exploratory and Confirmatory Factor Analysis and Analysis of Variance, the following hypotheses are supported by the data in the context of the overall model:

H1a *Strategic orientation will have an impact on performance, $p < .001$*

H1b *Prospectors and analyzers will have the greatest impact on performance, $p < .05$*

H2a *Executive values orientation will have an impact on performance, $p < .05$*

H3 *Goal orientation will have an impact on performance, $p < .10$*

H4 *Strategic and executive values orientation alignment will have an impact on performance, $p < .05$*

H5 *Strategic and goal orientation alignment will have an impact on performance, $p < .05$*

H6 *Executive value and goal orientation alignment will have an impact on performance, $p < .05$*

H10 *Industry characteristics will not have an impact on performance*[42]

The other hypotheses not supported by the data include[43]:

H2b *An inner directed values orientation will have the greatest impact on performance*

H7 *Strategic-, executive values- and goal orientation alignment will have an impact on performance*

H8a *Managerial characteristics will have an impact on performance*[44]

H8b *Managerial characteristics and strategic orientation alignment will have an impact on performance*

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[42] No direct effect; industry had an interaction effect with executive values orientation and tenure at $p<.05$, and strategic orientation and tenure, $p < .10$.

[43] H9 Firm characteristics will not have an impact on performance was not tested for in the overall model.

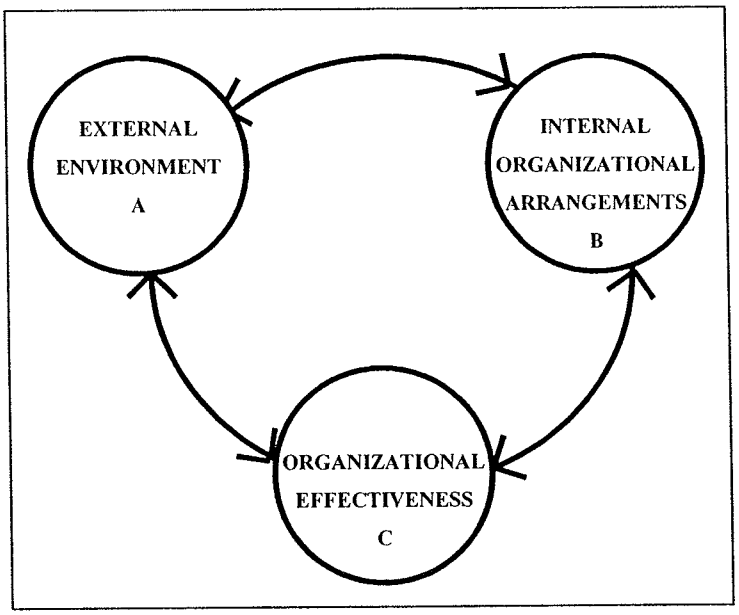
[44] No direct effect; the managerial characteristic tenure had an interaction effect with industry characteristics and executive values, $p < .10$.

6.2 Interpretation of findings and reflection on the literature

6.2.1 Overall model and the role of industry context

In this study, testing the model in context of other research variables produced more significant results than the analysis of variables without contextual variables. Results suggest that an organisation's performance is best understood in the context of its industry. The finding of this study suggests that a holistic approach to strategic co-alignment research should be encouraged, and in particular, industry effects should be integrated into research models. This is supported by Veliyath and Srinivasan's (1995) assertion that the external environment represented by industry characteristics in the current research is crucial to strategic coalignment research, as outlined in Figure 6.1.

Figure 6.1: Elements within the configuration (i.e. system) of strategic fit



Source: Veliyath and Srinivasan (1995), p.210

6.2.2 Strategic orientation

The current research supports the strategic choice (Child, 1972) view and confirms Thomas and Ramaswamy's (1997) results that the strategic choices of managers represented by strategic orientation [$F(3, 54) = 5.961$, $p = .001$] has a greater impact on performance than the

contextual constraints of industry characteristics [F(2, 124) = .385, p = .683] in the overall model[45].

According to the results of the current study, the performance of a company is best explained by the patterns of strategic choices made by managers in the entrepreneurial, administrative and engineering domains which form an organisation's strategic orientation in the context of an industry. In this respect, the current research supports Miles and Snow's (2003) neo-contingency theory that puts the emphasis of managerial choice over environmental determinism as the primary cause of organisational characteristics.

Regarding strategic equifinality[46], contrary to Miles and Snow's (1978,1999, 2003) contention that each of the stable strategies can lead to equally successful performance outcomes, the results of this research indicate that there are actually two best ways to prosper: prospectors and analysers significantly outperform defenders and reactors.

6.2.3 Executive values and goal alignment

The result of the current research reveals that executive values and entrepreneurial goal orientation alignment [F(1, 54) = 5.848, p = .019] has a greater impact on performance than aspects of executive orientation on their own, either executive values [F(1, 54) = 5.248, p = .026] or the managerial characteristic with the greatest main effect, tenure [F(2, 54) = 1.356, p = .266]. This result was unexpected, but upon reflection, is not surprising. Over 40 years ago Abraham Maslow (1998, p. 57) wrote, *"The problem of management in any organisation can then be approached in a new way: how to set up social conditions so that the goals of the individual merge with the goals of the organisation."* Simply described by former director of

[45] Firm characteristics were not included in the overall model because the main effects of age [F(2, 124) = 1.218, p=.299] or size [F(2, 124) = 1.536, p = .219] did not reach significance in hypothesis testing out of context of the overall model.

[46] Within a particular industry or environment there are a number of ways to prosper.

Apple University (Apple Computer), Sherri Rose, managing the alignment between corporate and personal goals involved, *"...putting people in the right positions where they could excel in the work they loved"* (quoted in Maslow, 1998, p. 58). The importance of values-goal alignment has been captured by Senge's (1990, p. 206) concept of 'shared vision', *"a desire to be connected in an important undertaking"* and by Hamel and Prahald's (1989, 1994) 'strategic intent', a clearly articulated challenge that requires doing something new or different which creates meaning for employees. Shared vision and strategic intent can be considered a reaction to the perceived failure of strategic planning to produce goals that are worthy of personal effort and commitment as well as mission statements that fail to impart a sense of mission (Hamel and Prahald, 1989; Reich, 1998). The result of the current research concerning values-entrepreneurial goal alignment appears to substantiate the performance impact of a sense of mission according to Robert Reich (1998, p. 126): *"Xerox Parc guru John Seely Brown said it best: 'The job of leadership today is not just to make money. It's to make meaning.' When it comes to attracting, keeping, and making teams out of talented people, money alone won't do it. Talented people want to be part of something that they can believe in, something that confers meaning on their work and on their lives - something that involves a mission. And they don't want that mission to turn into the kind of predictable 'mission statement' that plasters many a corporate-boardroom wall. Rather, they want spiritual goals that energize an organization by resonating with the personal values of the people who work there - the kind of mission that offers people a chance to do work that makes a difference. Along with the traditional bottom line, great enterprises have a second bottom line: a return on human investment that advances a larger purpose. A powerful mission is both a magnet and a motivator."*

6.2.4 Executive values and demographic variables

6.2.4.1 Executive values

Hambrick and Mason (1984) hypothesised that executive values and cognitive bases impact upon strategic choice, which Finkelstein and Hambrick (1997) extended to include organisational performance. The result of this research in the context of the overall model confirms that executive values impact performance [$F(1, 54) = 5.248$, $p = .026$]. Moreover, based on its interaction effect with strategic [$F(3, 54) = 2.360$, $p = .082$] and goal orientation alignment, executive values is an important behavioural factor in strategic formulation (Andrews, 1987; Guth and Taguri, 1965; Learned, *et al.*, 1965; Mintzberg *et al.*, 2003; Porter, 1980), decisions and impacts the direction of the firm (Steiner, 1969; Donaldson and Lorsch, 1983).

6.2.4.2 Demographic variables

Concerning the association between the observable factors of demographic variables and the behavioural/psychological factor of executive values, in the overall model a comparison of the performance impact of executive values [$F(1, 54) = 5.248$, $p = .026$] and the managerial characteristic with the greatest main effect, tenure [$F(2, 54) = 1.356$, $p = .266$], shows that executive values have a greater performance impact than demographic variables. Contrary to Finkelstein and Hambrick's (1996) assertion that executive psychological and experience characteristics cannot reliably be put in front of one another, this result indicates that executive values are more important in the causal chain of fundamental executive characteristics to performance.

6.2.4.3 Tenure

Although tenure did not have a main effect in the overall model, it was a key demographic variable that interacted with:

i. Industry characteristics alignment [$F(4, 54) = 2.481$, $p = .055$],

ii. Strategic and goal orientation alignment [$F(1, 54) = 3.483$, $p = .067$],

iii. Executive values orientation [$F(2, 54) = 2.511$, $p = .091$].

This finding raises questions about demographic variables' role as surrogate measures that are imprecise measures of executive characteristics (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991). Firstly, the interaction effect between tenure and executive values does provide evidence of an association between psychological and observable factors as predicted by Finkelstein and Hambrick (1996).

Regarding tenures' interaction with strategic and goal orientation alignment, a suggested interpretation is that tenure is a surrogate for 'fit' or alignment between a manager and an organisation's strategy rather than of executive characteristics (e.g. risk-averse, entrepreneurial, etc). It appears the longer the tenure the more one is inculcated in an organisation's strategic orientation. This interpretation supports previous findings that long tenure is linked with strategic persistence[47] (Finkelstein and Hambrick, 1990) and commitment to the organisational status quo (CSQ), '*belief in the enduring correctness of current organisational strategies and profiles*' (Hambrick *et al.*, 1993, p. 402). In a large sample ($n = 690$) of senior executives in the US, Hambrick *et al.* (1993) found that organisational tenure had a positive effect ($p < .10$) on CSQ, in part because increasing levels of tenure causes the executive to have a greater stake in the status quo, since he/she is deemed valuable for the firm's current configuration (Finkelstein and Hambrick, 1996). This explanation would also support Miles and Snow's (1978, 1994, 2003) view that strategic orientation is self re-enforcing, and hence, the longer the tenure the more alignment with it as well as Johnson and Scholes' (2002) interpretation of the Miles and Snow typologies as a categorisation of a company's behaviour and culture. According to Johnson and Scholes (2002), defender cultures find change threatening and favour strategies that provide continuity

[47] The extent to which a firm's strategy remains fixed over time (Finkelstein and Hambrick, 1990)

and security maintained by a bureaucratic approach to management which makes the organisation adverse to innovation, whereas prospector cultures thrive on change, favouring strategies of product and market development supported by a creative and flexible management style. In this sense, organisational tenure equates to a cultural-strategic fit with the organisation.

In Hambrick *et al.*'s (1993) study, industry tenure had an even more positive effect on CSQ ($p < .05$) than organisational tenure. Although this study did not measure industry tenure, one suggested interpretation is that tenures' interaction with industry characteristics [$F(4, 54) = 2.481$, $p = .055$] is capturing the industry characteristics-tenure dynamic in which increasing tenure results in a socially constructed interpretation of industry and 'industry wisdom' (Hambrick *et al.*, 1993).

These interpretations are speculative and more research would be needed to substantiate them. In the context of the overall model, the results of the current research confirm previous studies' finding on the performance impact of the strategic choice perspective (e.g. Miles and Snow, 2003; Thomas *et al.*, 1991; Thomas and Ramaswamy, 1996) whilst also indicating the importance of interpreting company performance and strategic co-alignment in an industry context. Moreover, empirical support for the performance impact of executive values and organisational goals alignment has been interpreted in light of Maslow (1998), Senge's (1990) concept of 'shared vision', Hamel and Prahald's (1989) notion of strategic intent and Reich's (1998) views on a sense of mission. Based on the results of the current study, the association between the psychological/behavioural factor of executive values and the observable factor of tenure has also been interpreted. Executive values had a greater impact on performance than tenure, whilst at the same time finding some support for an association between tenure and executive values (Finkelstein and Hambrick, 1996). A link was also made with previous interpretations of the interaction between organisational tenure and strategic orientation (Miles and Snow, 1978, 1994, 2003; Johnson and Scholes, 2002), strategic persistence (Finkelstein

and Hambrick, 1990) as well as CSQ (Hambrick *et at.*, 1993) with organisational and industry tenure.

6.3 Strengths of the study

An overall strength of the current research is that it addresses a clear and neglected research issue. The research on behavioural aspects of strategic decisions has lead theorists (e.g. Hambrick and Mason, 1984; Hitt and Tyler, 1991) to conclude that an accurate understanding of strategic decisions requires consideration of the effects of executives' personal characteristics. Executives' personal values have been identified as a key determinant affecting strategic decision-making in organisations, yet the role of values has not been adequately researched (Andrews 1980; Learned *et al.*, 1965; Mintzberg, *et al.*, 2003; Pant and Larchman, 1998; Sturdivant *et al.*, 1985; Zahra and Pearce, 1990). Finkelstein and Hambrick (1996) recognise the research void: *"Executive values is an open field for research. Even though values are undoubtedly important factors in executive choice, they have not been the focus of much systemic study"* (p. 48). Concerning the role of executive values in strategic orientation, Zahra and Pearce (1990) identified the gap in the research in values and its contribution: *"Despite the attention given to the administrative dimension of the [Miles and Snow] typology, the role of the strategist remains unknown...To understand organisational adaptation research must examine the values, aspirations and styles of the CEO and senior executives. Only then a comprehensive picture of strategic choices and process can be developed"* (p. 763). Further strengths of the study may be summarised as follows:

i. **Using primary rather than secondary data**. The current research examines the responses of 163 managers to investigate executive values, which is a construct that is notoriously difficult to research in terms of measurement and willingness of managers to answer questions of a highly personal and sensitive nature (Hambrick and Mason, 1984). The current research overcomes limitations of other studies that have relied solely on demographic data.

ii. **Extension of Thomas and Ramaswamy's (1997) model of manager-strategy co-alignment**. The introduction of the new constructs of *executive values* and *goals* to their strategy-manager coalignment model has allowed a more comprehensive investigation into key variables and their impact on performance. Also, expanding the number of Miles and Snow (1978, 1994, 2003) typologies tested from two (prospectors and defenders) to all four (including analyzers and reactors) has given particular insight into performance comparisons between the strategic types.

iii. **Extending the performance construct to include operational as well as financial measures of performance.** Through exploratory and confirmatory factor analysis the current study indicates that operational and financial performance are two sub-dimensions of performance.

iv. **Executive values orientation.** The current research uses a theory-driven approach to categorise executive values in a new way in managerial research, which goes beyond previous attempts that use a dichotomous approach of 'conservative' and 'entrepreneurial' managerial values.

v. **Goal orientation.** Building on Zahra's (1987) research on the goals associated with different strategic types, this research has employed an alternative approach to goal categorisation that overcomes the problem of goal categories being dependent on and a reflection of a strategic type. Moreover, it was found that there was a significant difference between organisations which had entrepreneurial and non-entrepreneurial goal orientations.

6.4 Limitations of the study

Throughout this thesis, limitations of sampling method, instrumentation and methodology have been highlighted. These are summarised as follows:

i. **Sampling procedure**. The need to obtain access to respondents and the required information at a reasonable cost and in a sufficient number to allow statistical analysis using multivariate techniques prevented the use of a random sample. As a result the

sample was drawn using a non-probability sampling design. The implication of this is that generalising the findings should be treated with caution (Hair *et al.*, 2003). However, the sample size (163) having exceeded the minimum efficient sample size (144) and satisfied the 100 to 200 cases guideline required for stable diagnostic measures of multivariate analysis (Hair *et al.*, 1998; Samouel, 1996) and 5-10 cases per item guideline for factor analysis (Pallant, 2001) indicates that inferences from the population (in-work managers internationally) can be made reliably and the use of multivariate techniques can be made with accuracy and precision.

ii. **Low on-line response rate.** The inclusion of the survey's URL link in two organisations' newsletters resulted in a low on-line response rate, although the paper-based response rate was 94%. An independent-samples t-test and chi-square test found no significant difference between paper-based and on-line responses.

iii. **A quantitative approach.** A cross-sectional quantitative approach does not allow an in-depth exploration of how executive values influence strategic choice or an examination of the process. In the context of Finkelstein and Hambrick's (1997) proposition, *"Do executives select strategies in line with their values*?", a quantitative approach on its own is not sufficient to probe this question in depth.

iv. **Executive values orientation.** It was hoped that convergent validity could be established between the List of Values and Values Modes (VMs) instruments. The VMs instrument was used due to its 30+ years of use, however, reliability tests for the VMs instrument are unreported. This increases the risk of measurement error which could distort the relationships between variables making multivariate techniques less powerful and may result in weak or marginal results (Hair *et al.*, 1998). However, as the results concerning executive values are neither weak nor marginal it suggests that measurement error of executive values is not a significant issue in this study.

v. **Unit of analysis.** Choosing one individual from an organisation does not guarantee they are representative of the organisation. However, choosing a top management

team as a unit of analysis would entail doing an entirely different study than the current research.

6.5 Implications of the research

Investigating the performance impact of executive values and strategic orientation relationship as well as other variables has led to several preliminary observations that have implications for researchers and practioners. Firstly, the current research confirms that the performance of a company depends on its strategic orientation in an industry context and companies who innovate (prospectors and analyzers) outperform those that do not (defenders and reactors). Moreover, companies that pursue entrepreneurial goals outperform those that do not. The key research issue was whether executive values significantly impact performance. Executive values have a direct impact on performance and an even greater impact when they are in alignment with entrepreneurial organisational goals. Moreover executive values' direct effect on performance is more important than experience factors. Based on the results in the context of the overall model, the current research makes a positive contribution to establishing that the personal values of an organisation's key employees is an important strategic issue – ignore it at your peril.

A further implication of this research is that the criticism of demographic variables as a surrogate measures of executive characteristics (Hambrick, 2001; Pettigrew, 1992; Pfeffer, 1983; Lawrence, 1991) needs to account for the demographic variable tenure which is a key to unlocking the organisational phenomena of management-strategy interaction.

6.5.1 Practical implications

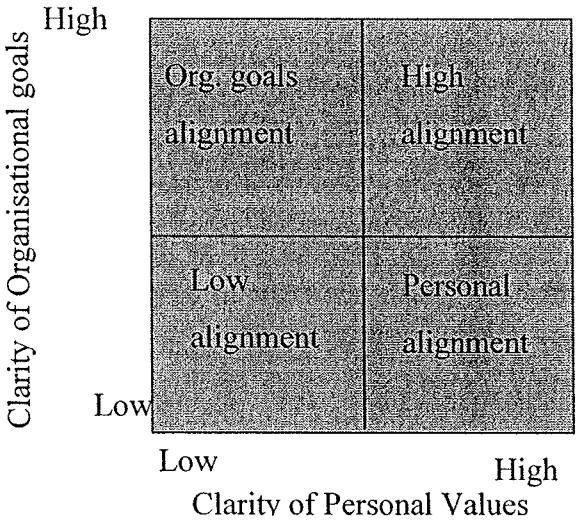
The results of this research indicate that the three key variables of this research have direct and interaction effects on performance, as shown in Figure 6.2.

Figure 6.2 Research elements of a people-focused approach to strategy

6.5.1.1 Executive values and goal alignment

Previous research has shown that the clarity of employees' personal values and that of the organisation's values led to high degrees of 'congruence' (shared values) and commitment (Posner and Schmidt, 1993). Building on this and the current research concerning executive values and goal alignment suggests that the clarity of organisational goals and executive values is a necessary condition for alignment, as summarised in a 2 x 2 matrix Table 6.1.

Table 6.1 Executive values and organisational goals alignment



Adapted from Posner and Schmidt, 1993, p. 174

Within this framework each of the four quadrants can be illustrated by the following:

Low alignment: This entails a lack of clarity and understanding of personal values by executives (in essence a lack of self awareness) combined with the organisation having unclear organisational goals. This would likely be encountered in a 'reactor' organisation (Miles and Snow, 1978, 1994, 2003).

High Alignment: This entails clarity and understanding of personal values by executives combined with the organisation having clear organisational goals. An example of this situation is Steven Jobs and Apple, taking it from near-death to an all-time high on the stock market within a few years by refocusing Apple's goals in the 90's to purse entrepreneurial goals of innovation and growth aligned with his own articulated entrepreneurial values, hence, achieving high alignment.

Personal alignment: This entails clarity and understanding of personal values by executives that is combined with an organisation having unclear organisational goals. An example of this is Stelios Haji-Ioannou, founder of EasyJet, who as a self described 'serial entrepreneur' with clear entrepreneurial values who was persuaded by the Board of EasyGroup to relinquish the top job to allow a new CEO (Ray Webster) to refocus the company and allow him to better ply his entrepreneurial skills to pursue new ventures e.g. EasyCinema to get the off the ground.

Organisational alignment:

This entails lack of clarity and understanding of an executive's personal values and an organisation having clear organisational goals. Although this situation is difficult to infer, it may reflected the examples of aimless executives running down institutions, as depicted in Burrough and Helyar's (1990) "Barbarians at the Gate, the Fall of RJR Nabisco" that tells of the then CEO Ross Johnson's approximate 23 'change programmes' in 24 years due to an apparent belief in permanent change/revolution but for no apparent purpose or reason that resulted in the sale of the company to the leverage buyout investment firm Kohlberg Kravis Roberts & Co.

Organisations need to be clear about their goals and the values of key employees to assess whether they are in alignment to ensure top executives are engaged and performance maintained. Moreover, clarity of one's values could lead to leadership development and how to work with those whose values differ from their own.

6.5.1.2 Executive values and strategic alignment

Addressing the hierarchy of importance of the research variables in terms of their performance impact also suggests practical implications of this research. Based on this research, the results indicate that getting ones strategy right is 'needed to play'. In particular, the results indicate that prospector and analyzer strategic orientations outperform reactors and defenders. This suggests that if at least part of a business is not prospecting for new business and markets it is destroying value; solely defending one's business is not defensible (in performance terms).

The implication of the results are that managers need to get the 'hard' factor of strategy right as a main priority, but also need to ensure that the 'soft' factor of executive values alignment as well, as summarised in Table 6.2 executive values and strategy fit 2 x 2 matrix.

Table 6.2 Executive values and strategic fit

Executive values alignment	Strategic orientation alignment: High	Strategic orientation alignment: Low
High	Keep building alignment	Fix strategy
Low	Fix values alignment	Fix leadership-strategy match

Keep building alignment: High Executive values and strategic orientation alignment, such as Apple with Steve Jobs, entails a continuing process of building alignment. Alignment is a dynamic that involves achieving *internal* fit among strategy, structure and management processes (arrangement) as well as *strategic* fit between the organisation and its environment (alignment) that if managed properly can result over time to organisations entering the 'Hall of Fame' (Miles and Snow, 1994).

Fix strategy: Strategic orientation having the greatest impact on performance indicates that fixing strategy if strategic orientation alignment (internal and external fit) is low is the top priority. Based on the results of this current study, reactors and defenders significantly under-perform other types, and therefore, need to change their strategic orientation if they do not want to destroy value relative to their competitors in an industry context. Moreover, except for the 'Hall of Famers', most prospectors and analysers will not be optimally (internally) aligned (Miles and Snow, 1978, 1994, 2003) and hence, be improvers that could increase performance by achieving tighter internal fit.

Fix values alignment: For those that have strategic fit, low executive values alignment is likely to result in disagreement or opposition to the choice of strategy and strategic ineffectiveness (Learned *et al.*, 1965), politics that derives from value-based conflicts which has been shown to distract executives, lead to poor information flows and slow down decision-making and ultimately result in poor performance (Eisenhardt and Bourgeois, 1988).

Fix leadership-strategy match:

Low strategy-values alignment is likely to mean that senior management and strategy are not synchronised or incompatible which is a key determinant of corporate success or failure (Rothschild, 1993). Low strategy and values alignment hinders an organisation's strategic response capability—its ability to adapt to the challenges of its environment (Lindgren, 2000) and hence result in being a reactor. New leadership will unlikely improve the situation until and unless a new strategy is embarked upon.

6.6 Potential further research

This study raises a number of areas which would seem to warrant further research. These are discussed briefly below:

i. Further theory development on the relationship between underlying needs, values and motives. Due to the varying executive value dimensions (see section 2.6.4) that exist and support in the current study for an association between underlying needs and values theorised by Maslow (1970), conceptual clarity is needed in this area.

ii. Development of the List of Values instrument into a robust psychometric instrument for further research. Further empirical research in this area and output of practical benefit to practioners necessitates further improvement in the executive values instrument.

iii. Comparison of executive values in a top management team with implications on team effectiveness and performance. Analysis of a top team's values could lead to insights to improve top team development and effectiveness.

iv. Examination of the performance impact and association of executive values with other psychological factors, e.g. Myers-Briggs and Emotional Intelligence. Finkelstein and Hambrick (1996) identified 'other personality' factors as part of executive orientation that remain unexplored and their association with values would lead to a greater understanding of the behavioural aspects to strategic decisions and their impact on performance.

v. Exploration of strategic and executive values orientation alignment for specific strategic types potentially using 'ideal types'. Using a matched pair approach to strategic co-alignment could lead to potential hypotheses e.g. prospector organisations with executives with entrepreneurial values will outperform other/unmatched prospectors, could result in a greater understand of the leadership-strategy relationship. This would entail conducting a similar study that includes more managers with traditional values.

vi. Specification of executive values and their performance impact. Although the current study identified the performance impact of executive values and their alignment, identifying which particular values and their alignment have a performance impact, e.g. creativity, requires further research.

vii. Further investigation into strategic orientation and industry effects. Although the current research identified that performance is best explained by an organisation's strategic orientation in an industry context, understanding particular strategy-industry effects, e.g. whether prospectors outperform defenders in differentiated industries and defenders outperform prospectors in commodity-like undifferentiated industries, would improve the understanding of the strategy-industry dynamic.

viii. Examination of the management level and performance relationship. Although the current study found no significant difference between management levels in overall performance (financial and operational), further research is required to explore hypotheses relating to whether differences exist between managerial levels and operational and financial performance separately, e.g. middle managers who implement strategy and operational performance.

ix. Qualitative work on the process of how executive values influence decision-making. Finkelstein and Hambrick (1996)'s proposition concerning whether executives' values are reflected in the decisions that they take require qualitative research that would address the gap in understanding the direct and indirect impact of values on strategic decisions.

x. An exploration into executive values as a transformational leadership factor for organisations changing strategic orientation. More research is necessary to understand the dynamic in turnaround situations and in particular, the role of executives and their values in leadership-strategy (mis)alignment.

xi. Research into HRM-Strategic orientation integration. The Miles and Snow typology indicates a relationship between strategy, systems and processes that appear to have escaped empirical research. Investigating the HRM dimension of the different

strategic types, relative measures of internal fit and their impact on performance could deepen understanding into organisational patterns of HRM and strategy.

The focus of this study has been to consider executive values and their relationship amongst other research variables affecting strategic choice and performance. The literature review including Hambrick and Mason's (1984) upper echelon theory suggests executive values play an important role in strategic choice. The current research is a further step in this area providing empirical evidence for the theory. More research based on a random sample within an industry context would provide an ideal opportunity to compare findings. Also, rather than looking at individuals, investigating the values composition of companies' top management teams and its implications on team effectiveness and performance would be a logical extension to this research.

6.7 Learning from the research process

The process of doctoral research has been described as an 'apprenticeship' and a 'journey' (Easterby-Smith *et al.*, 1996; Higgs, 1997). In reflecting on the experience of conducting the current research a few key learning points have emerged. In summary, these are:

i. **The need to be research focused rather than instrument focused.** Measuring executive values was the initial focus of the research (in Stage 1 of the DBA). When the particular instrument was found to be unreliable, I was forced to rethink the research project from 'scratch'. It was then that the importance of clearly defining a research issue in the context of previous theory and research was appreciated. This was particularly important in the context of the advice given 'not to disappear down the black hole of values'. Hambrick and Mason's (1984) upper echelon theory gave this research the necessary theoretical framework.

ii. **The merits of extending previous research.** Wanting to research something 'new' and doing a 'unique' piece of research initially blinded me to seeing how I could build

on previous research. Extending Thomas and Ramaswamy's (1997) research model gave the study a focus although did not mitigate many of the challenges concerning defining the hypotheses and operationalising the research. The lack of model extensions in doctoral research suggests its virtues are not fully appreciated.

iii. **The value of qualitative research.** The qualitative feedback gained on the questionnaire from focus groups and the comments section on the questionnaire has deepened my appreciation of the need for both quantitative and qualitative data. This research includes elements of both.

iv. **The importance of rigour in operationalising constructs**. The attempt to operationalise broad constructs such as strategic orientation, executive values, goals, strategic decision-making influence and industry characteristics and operationalising them through valid and reliable instruments has demonstrated the importance of using established scales from a variety of sources in related contexts. Moreover, the crucial importance of doing a pilot study has been appreciated.

v. **The importance of the research community**. This research has benefited from the feedback gained from colleagues and academics at theme groups/colloquia, workshops and conferences. The input of fellow doctoral colleagues and professors has been important throughout the various stages of the research and I have met potential collaborators whose intellectual interests could both broaden and deepen this line of research.

6.8 Concluding remarks

In conclusion, this thesis has provided empirical evidence for the performance impact of strategic-, executive values- and goal orientation in an industry context. In particular, prospectors and analyzers outperform defenders and reactors. Executive values has a performance impact; the effect of value is greatest when an individual's values are aligned with entrepreneurial organisational goals. Executive values' performance impact indicates that it is more important than demographic variables in the causal chain of executive

characteristics to performance. Organisational tenure's interaction effect with industry characteristics and strategic orientation suggests that it could be providing more insight into organisational phenomena than executive characteristics.

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8 Annex 1 Questionnaire

Executive Strategic Orientation Survey

HENLEY MANAGEMENT COLLEGE

Introduction

Questions regarding strategy apply to the firm or individual business unit level, not the corporate level, and not the parent company where one exists. If you work in the public sector or a not-for-profit organisation please apply the questions to your division or other organisational unit as appropriate.

Section 1: Background Information

Please answer the following questions:

Background

Are you...

- ◯ An owner/manager of a company
- ◯ An executive/senior manager of a company division, business unit or subsidiary
- ◯ Other - please specify

What is the main industry sector?

What is the main activity of the organisation?

What is the age of the organisation? ☐☐☐ Years

What is the sales revenue/turnover per year, if known? £ ☐☐☐☐☐☐☐☐☐☐☐

How many people are employed (full-time equivalent), if known? ☐☐☐☐☐☐

How much influence do you have in making decisions concerning strategy?

No influence				Great deal of influence
◯ 1	◯ 2	◯ 3	◯ 4	◯ 5

How long have you been with the organisation? ☐☐ Years ☐☐ Months

If your country of origin is not the UK please specify

Level of formal education

Your Age ☐☐

Number of years in further/higher education ☐☐

Please indicate the highest level of study you have achieved:

- ☐ Secondary School
- ☐ College FE Diploma
- ☐ First Degree
- ☐ Masters Degree
- ☐ Doctorate
- ☐ Post Doctoral

If you have a professional qualification please indicate which one(s) in the space provided below:

Functional background

Please indicate the number of years spent in the primary* function that best describes your background

Production		General Management	
Finance		Marketing	
Engineering		Strategy	
Operations		R&D	
Information Technology		Other	
Human Resources		please specify	

** Maximum number of years in your career*

Please indicate the number of years spent in your current function, if different

Production		General Management	
Finance		Marketing	
Engineering		Strategy	
Operations		R&D	
Information Technology		Other	
Human Resources		please specify	

Section 2: Goals

In the space provided, indicate how important each of these goals is to your organisation. (1 = least important and 5 = most important).

	Least Important				Most Important
Profitability	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Employee Welfare	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Efficiency of Operation	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Innovation	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Growth	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Market Share	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Financial Stability	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Company Prestige	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Response to Social Issues	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Environmental Sustainability	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Strong Competitive Position	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Quality of Service	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Stock Price	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5

Section 3: Firm, Business unit or Divisional Strategic Orientation

For each of the questions below please select the one statement that best describes your firm, business unit or division today. Please place a cross in *one circle only* for each question.

1 . In comparison with our competitors, the products/services we provide to our customers are best characterised as:

- ◯ More innovative, continually changing and broader in nature
- ◯ Fairly stable in certain markets while innovative in other markets
- ◯ Well focused, relatively stable and consistently defined
- ◯ In a state of transition, and largely based on responding to opportunities or threats from the marketplace or environment

2. In contrast to our competitors, we have an image in the marketplace as a company which:

- ◯ Offers fewer, selective products/services which are high in quality
- ◯ Adopts new ideas and innovations, but only after careful analysis
- ◯ Reacts to opportunities or threats from the marketplace to maintain or enhance our position
- ◯ Has a reputation for being innovative and creative

3. The amount of time my company spends on monitoring changes and trends in the marketplace can best be described as:

- ◯ Lengthy: We are continuously monitoring the marketplace
- ◯ Minimal: We really don't spend much time monitoring the marketplace
- ◯ Average: We spend a reasonable amount of time monitoring the marketplace
- ◯ Sporadic: We sometimes spend a great deal of time and at other times spend little time monitoring the marketplace

4. In comparison with our competitors, any changes in demand, which we have experienced, are due most probably to:

- ◯ Our practice of concentrating on more fully developing those markets which we currently serve
- ◯ Our practice of responding to the pressures of the marketplace by taking few risks
- ◯ Our practice of aggressively entering into new markets with new types of product/service offerings
- ◯ Our practice of aggressively penetrating more deeply into markets we currently serve, while adopting new services only after a very careful review of their potential

5. One of the most important goals in this company, in comparison to our competitors, is our dedication and commitment to:

- ◯ Keep costs under control
- ◯ Analyse our costs and revenues carefully in order to keep costs under control and to selectively generate new products/services or enter new markets
- ◯ Ensure that the people, resources and equipment required to develop new products/services and new markets are available and accessible
- ◯ Make sure that we guard against critical threats by taking whatever action if necessary

6. In contrast to our competitors, the competencies (skills) which our managerial employees possess can best be characterised as:

- ◯ Analytical: their skills enable them to both identify trends and then develop new product/service offerings or markets
- ◯ Specialised: their skills are concentrated into one, or a few, specific areas
- ◯ Broad and entrepreneurial: their skills are diverse, flexible and enable changes to be created
- ◯ Fluid: their skills are related to the short-term demands of the marketplace

7. *The one thing that protects my company from our competitors is that we are able to:*

- ◯ Carefully analyse emerging trends and adopt only those which have proven potential
- ◯ Do a limited number of things exceptionally well
- ◯ Respond to trends even though they may posses only moderate potential as they arise
- ◯ Consistently develop new products/services and new markets

8. *More so than many of our competitors, our management staff tends to concentrate on:*

- ◯ Maintaining a secure financial position through cost and quality control measures
- ◯ Analysing opportunities in the marketplace and selecting only those opportunities with proven potential, while protecting a secure financial position
- ◯ Activities or business functions which most need attention given the opportunities or problems we currently confront
- ◯ Developing new products/services and expanding into new markets or market segments

9. *In contrast to our competitors, my company prepares for the future by:*

- ◯ Identifying the best possible solutions to those problems or challenges which require immediate attention
- ◯ Identifying trends and opportunities in the marketplace which can result in the creation of product/service offerings which are new to our industry or which reach new markets
- ◯ Identifying those problems which, if solved, will maintain and then improve our current product/service offerings and market position
- ◯ Identifying those trends in the industry which our competitors have proven possess long-term potential while also solving problems related to our current product/service offerings and our current customer's needs

10. *In comparison to our competitors, the structure of my company is:*

- ◯ Functional in nature (ie. organised by department - marketing, accounting, HR etc)
- ◯ Product/service or market orientated (ie. organised by product or maket orientated divisions)
- ◯ Primarily functional (departmental) in nature; however a product/service or market orientated structure does exist in newer or larger product/service offering areas
- ◯ Continually changing to enable us to meet opportunities and solve problems as they arise

11. *Unlike many of our competitors, the procedures my company uses to evaluate our performance are best described as:*

- ◯ Decentralised and participatory encouraging many organisational members to be involved
- ◯ Heavily orientated towards those reporting requirements which demand immediate attention
- ◯ Highly centralised and primarily the responsibility of senior management
- ◯ Centralised in more establised product/service areas and more participatory in newer product/service areas

Section 4: Performance

To the best of your knowledge, please indicate how your company performs in comparison to its competitors. (1 = Much worse and 5 = Much better)

	Much Worse				Much Better
The overall performance of this company in the last year has been:	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
The return on investment in the company in the last three years has been:	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Growth in the volume of sales from this company in the last three years has been:	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Lower production costs (e.g. ratio of costs of goods sold to total sales) in the last three years	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Market focus (e.g. ratio of marketing expenditure to total sales) in the last three years.	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Asset intensity (e.g. total assets per employee) in the last three years	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Research and development (e.g. ratio of research and development to total sales) in the last three years	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5

Section 5. Industry Characteristics

How differentiated are the product/services and brands in your industry? Please place a cross in *one box* only:

1 ◯ Undifferentiated products/services (e.g. petroleum refining)

2 ◯ Somewhat undifferentiated products/services

3 ◯ Some differentiated products/services and brands(e.g. chemicals industry)

4 ◯ Differentiated products/services and brands

5 ◯ Highly differentiated products/services and brands (e.g. electronics industry)

Section 6. Personal Orientation

Using the scale provided, please show the extent to which you personally consider each of the following important as they apply to you personally, by crossing the number that corresponds to the level of importance of each consideration to you. For example, you may think money is not absolutely critical but it is important to maintain a good standard of living, therefore, you would circle the number 4 for 'money'.

	Not at all important	Not so important	Neutral	Fairly important	Very important
Achievement (Accomplishment)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Autonomy (independence, freedom)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Ambition	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Aggressiveness	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Equality	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5

	Not at all important	Not so important	Neutral	Fairly important	Very important
Power (authority, influence)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Creativity	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Money (material success)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Energy (good health)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Prestige (dignity; status; recognition)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Security (family and job)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Religion	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Pleasure (leisure)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Compassion	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Loyalty	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Trust	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Competence (ability)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Competition	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Risk	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
National security	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Affection	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Social protection (government assistance)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Growth (personal development)	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Innovation	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Honesty	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Responsibility	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Hardwork	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Optimism	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5

Now for some questions which may seem a bit out of the ordinary for this type of survey, but which will enable us to understand a little of your general approach to life.

How important are these things in your life?	Not at all important	Not so important	Neutral	Fairly important	Very important
To spend time and effort caring for your appearance	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
To find out who you are and what you're good at	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
To have lots of possessions	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
To have a large group of friends and neighbours that you can turn to	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5

Here are two different descriptions of people. How similar are you to these kinds of people?	Not at all similar	Not so similar	Somewhat similar	Fairly similar	Very similar
People who worry about what others may think of them	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
People who enjoy keeping up with current trends in home decorating	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5

How do you feel about each of these statements?	Strongly disagree	Slightly disagree	Somewhat agree	Slightly agree	Strongly agree
I can't bear untidiness in the home	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
There are too many foreigners in this country	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
Criminals should be punished with maximum prison sentences to make them learn their lesson	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
I have little to expect from the future	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5

Thank you for the time and effort that you have taken in completing this form.

You are welcome to add any comments about the survey below.

9 Annex 2: Answer Key for Measuring Strategic Types

Adapted from Conant *et al.*, (1990), pp. 382-383

The 11 scale items comprising the final instrument correspond to the 11 adaptive cycle dimensions in the Miles and Snow typology. The four response options listed under each scale item characterise the distinctive "adaptive stance activities" of the archetypes relative to the dimension of the adaptive cycle.

1. Entrepreneurial – product market domain

In comparison with our competitors, the product/services we provide to our customers are best characterised as:

i. More innovative, continually changing and broader in nature. Prospector (P)

ii. Fairly stable in certain units/department and markets while innovative in other markets. Analyzer (A)

iii. Well focussed, relatively stable and consistently defined. Defender (D)

iv. In a state of transition and largely based on responding to opportunities or threats from the marketplace or environment. Reactor (R)

2. Entrepreneurial – success posture

In contrast to our competitors, we have an image as an HMO which:

i. Offers fewer, selective services, which are high in quality (D)

ii. Adopts new ideas and innovations, but only after careful analysis (A)

iii. Reacts to opportunities or threats in the marketplace to maintain or enhance our position (R)

iv. Has a reputation for being innovative and creative (P)

3. Entrepreneurial – surveillance

The amount of time my company spends on monitoring changes and trends in the marketplace can best be described as:

i. Lengthy: We are continuously monitoring the marketplace (P)

ii. Minimal: We really don't spend much time monitoring the marketplace (D)

iii. Average: We spend a reasonable amount of time monitoring the marketplace(A)

iv. Sporadic: We sometimes spend a great deal of time and at other times spend little time monitoring the marketplace (R)

4. Entrepreneurial – growth

In comparison with our competitors, the increase or losses in demand which we have experienced are due most probably to:

i. Our practice of concentrating on more fully developing those markets which we currently serve (D)

ii. Our practice of responding to the pressures of the marketplace by taking few risks (R)

iii. Our practice of aggressively entering into new markets with new types of service offerings and programs (P)

iv. Our practice of assertively penetrating more deeply into markets we currently serve, while adopting new services only after a very careful review of their potential (A)

5. Engineering – technological goal

One of the most important goals in this company, in comparison to our competitors, is our dedication and commitment to:

i. Keep costs under control (D)

ii. Analyse our costs and revenues carefully, to keep costs under control and to selectively generate new services or enter new markets (A)

iii. Ensure that the people, resources and equipment required to develop new services and new markets are available and accessible (P)

iv. Make sure that we guard against critical threats by taking whatever action is necessary (R)

***6.** Engineering – technological breadth*

In contrast to our competitors, the competencies (skills) which our managerial employees possess can best be characterised as:

i. Analytical: their skills enable them both to identify trends and then develop new service offerings or markets (A)

ii. Specialised: their skills are concentrated into one, or a few, specific areas(D)

iii. Broad and entrepreneurial: their skills are diverse, flexible, and enable change to be created (P)

iv. Fluid: their skills are related to the near-term demands of the marketplace (R)

7. *Engineering – technological buffers*

The one thing that protects my company from other competitors is that we:

i. Carefully analyse emerging trends and adopt only those which have proven potential (A)

ii. Do a limited number of things exceptionally well (D)

iii. Respond to trends even though they may possess only moderate potential as they arise (R)

iv. Consistently develop new services and new markets (P)

8. Administrative – dominant coalition

More so than many of our competitors, our management staff tends to concentrate on:

i. Maintaining a secure financial position through cost and quality control measures (D)

ii. Analysing opportunities in the marketplace and selecting only those opportunities with proven potential, while protecting a secure financial position (A)

iii. Activities or business functions which most need attention given the opportunities or problems we currently confront (R)

iv. Developing new services and expanding into new markets or market segments (P)

9. Administrative – planning

In contrast to our competitors, my company prepares for the future by:

i. Identifying the best possible solutions to those problems or challenges which require immediate attention (R)

ii. Identify trends and opportunities in the marketplace which can result in the creation of product/service offerings which are new to our industry or which reach new markets (P)

iii. Identifying those problems which, if solved, will maintain and then improve our current service offerings and market position (D)

iv. Identifying those trends in the industry which our competitors have proven possess long-term potential while also solving problems related to our current product/service offerings and our current customers' needs (A)

10. Administrative – structure

In comparison to our competitors, the structure of my company is:

i. Functional in nature (i.e. organised by department – marketing, accounting, HR, etc.) (D)

ii. Product/service or market orientated (i.e. organised by product or market orientated divisions) (P)

iii. Primarily functional (departmental) in nature; however, a product/service or market orientated structure does exist in newer or larger product/service offering areas (A)

iv. Continually changing to enable us to meet opportunities and solve problems as they arise (R)

11. Administrative – control

Unlike many of our competitors, the procedures my company uses to evaluate our performance are best described as:

i. Decentralised and participatory encouraging many organisational members to be involved (P)

ii. Heavily orientated towards those reporting requirements which demand immediate attention (R)

iii. Highly centralised and primarily the responsibility of senior management (D)

iv. Centralised in more established service areas and more participatory in newer service areas (A)

10 Annex 3 Pilot mean scores and correlations for goal scale

Pilot mean scores for Goals scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
q2_profita	31	1	5	4.26	.893
q2_growtha	31	1	5	3.81	1.078
q2_cashflowa	32	2	5	3.81	.896
q2_innovationa	31	1	5	4.00	.966
q2_stockpricea	29	1	5	2.45	1.639
q2_prestigea	31	2	5	3.87	.957
q2_communitya	31	1	5	2.48	1.092
q2_environmenta	32	1	5	2.34	1.234
q2_efficiencya	31	2	5	3.87	.885
q2_differentiationa	31	1	5	3.97	1.080
Valid N (listwise)	27				

3.1 Goal item correlations

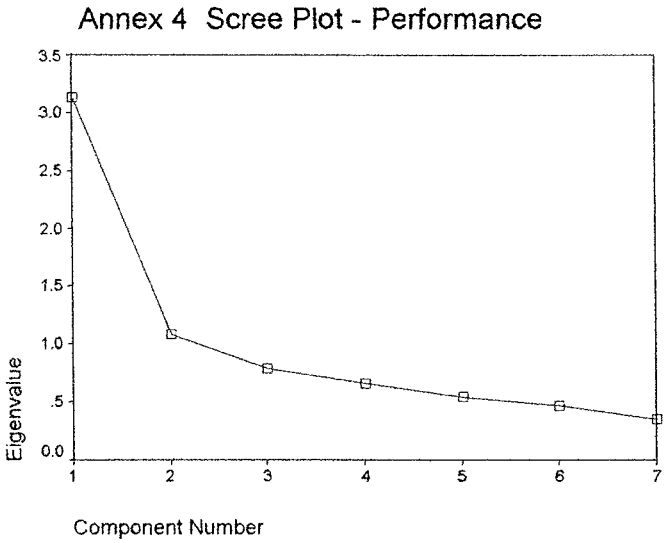
Correlations

		q2_profita	q2_growtha	q2_cashflowa	q2_innovationa	q2_stockpricea	q2_prestigea	q2_communitya	q2_environmenta	q2_efficiencya	q2_differentiationa
q2_profita	Pearson Correlation	1	-.069	.269	.052	.036	.025	-.099	-.167	.214	.064
	Sig. (2-tailed)	.	.717	.144	.783	.857	.897	.601	.370	.256	.736
	N	31	30	31	30	28	30	30	31	30	30
q2_growtha	Pearson Correlation	-.069	1	.045	-.064	.063	.104	-.059	.077	.137	.138
	Sig. (2-tailed)	.717	.	.811	.732	.747	.577	.751	.680	.471	.460
	N	30	31	31	31	29	31	31	31	30	31
q2_cashflowa	Pearson Correlation	.269	.045	1	-.082	.263	.102	.106	.352*	.382*	.178
	Sig. (2-tailed)	.144	.811	.	.663	.168	.584	.571	.048	.034	.339
	N	31	31	32	31	29	31	31	32	31	31
q2_innovationa	Pearson Correlation	.052	-.064	-.082	1	.043	.072	.411*	.165	.127	.000
	Sig. (2-tailed)	.783	.732	.663	.	.825	.700	.022	.374	.505	1.000
	N	30	31	31	31	29	31	31	31	30	31
q2_stockpricea	Pearson Correlation	.036	.063	.263	.043	1	.178	.012	.234	.113	.168
	Sig. (2-tailed)	.857	.747	.168	.825	.	.355	.949	.222	.566	.383
	N	28	29	29	29	29	29	29	29	28	29
q2_prestigea	Pearson Correlation	.025	.104	.102	.072	.178	1	.381*	.234	.208	.189
	Sig. (2-tailed)	.897	.577	.584	.700	.355	.	.035	.205	.269	.308
	N	30	31	31	31	29	31	31	31	30	31
q2_communitya	Pearson Correlation	-.099	-.059	.106	.411*	.012	.381*	1	.528**	.186	-.015
	Sig. (2-tailed)	.601	.751	.571	.022	.949	.035	.	.002	.325	.938
	N	30	31	31	31	29	31	31	31	30	31
q2_environmenta	Pearson Correlation	-.167	.077	.352*	.165	.234	.234	.528**	1	.250	-.041
	Sig. (2-tailed)	.370	.680	.048	.374	.222	.205	.002	.	.175	.829
	N	31	31	32	31	29	31	31	32	31	31
q2_efficiencya	Pearson Correlation	.214	.137	.382*	.127	.113	.208	.186	.250	1	-.344
	Sig. (2-tailed)	.256	.471	.034	.505	.566	.269	.325	.175	.	.063
	N	30	30	31	30	28	30	30	31	31	30
q2_differentiationa	Pearson Correlation	.064	.138	.178	.000	.168	.189	-.015	-.041	-.344	1
	Sig. (2-tailed)	.736	.460	.339	1.000	.383	.308	.938	.829	.063	.
	N	30	31	31	31	29	31	31	31	30	31

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

11 Annex 4 Performance Scree Plot



12 Annex 5 Unspecified Factor Analysis of List of Values

Communalities

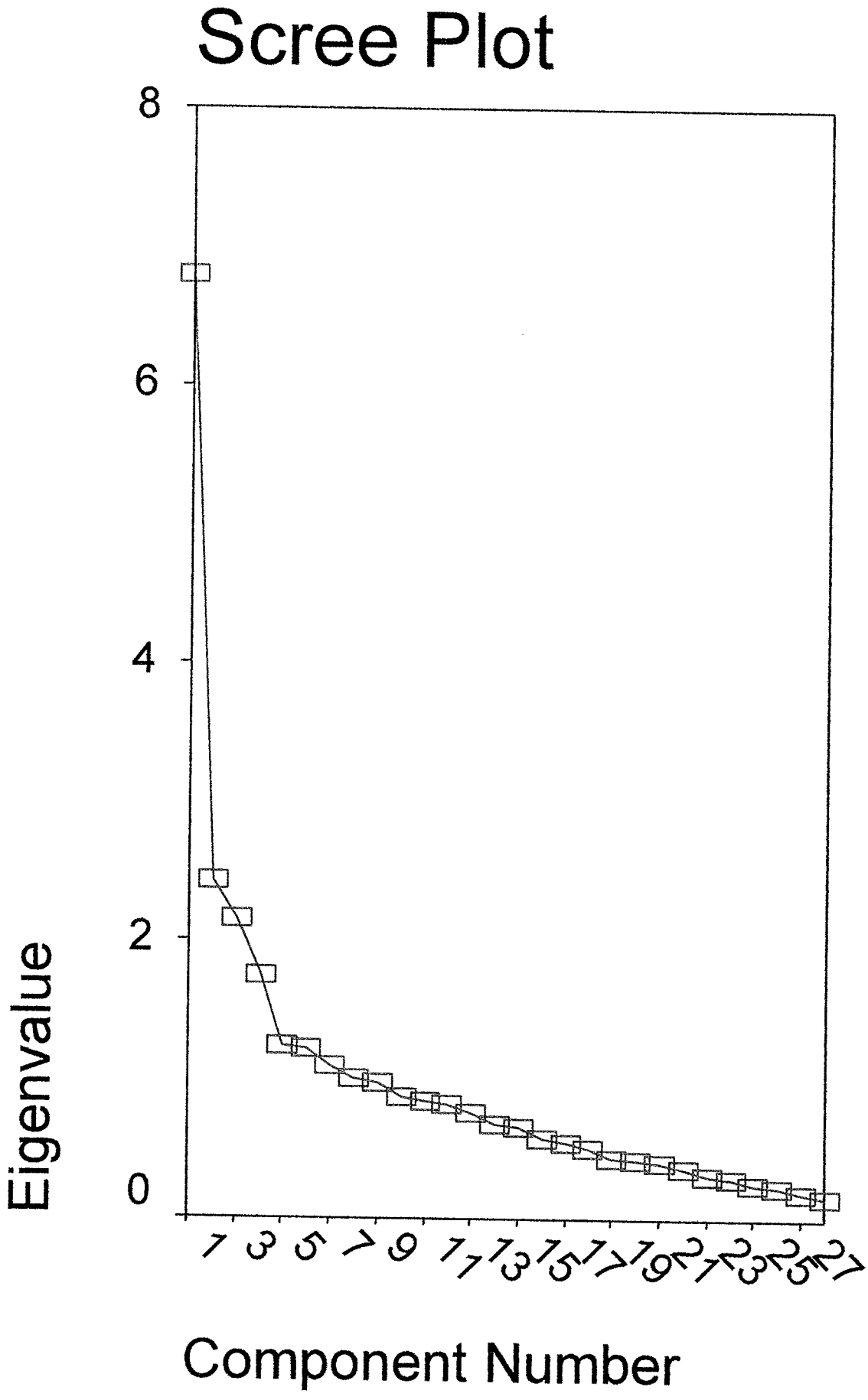
	Initial	Extraction
v_achievementOD7	1.000	.631
v_autonomyID5	1.000	.658
v_ambitionOD2	1.000	.647
v_aggressivenessOD4	1.000	.581
v_equalitySD11	1.000	.569
v_powerOD3	1.000	.705
v_creativityID3	1.000	.597
v_moneyOD5	1.000	.732
v_energySD9	1.000	.754
v_prestigeOD1	1.000	.531
v_securityOD6	1.000	.670
v_religion	1.000	.597
v_leisureSD8	1.000	.671
v_compassionSD2	1.000	.702
v_loyaltySD4	1.000	.515
v_trustSD1	1.000	.680
v_ability	1.000	.587
v_competitionID4	1.000	.534
v_riskID2	1.000	.573
v_natsecuritySD5	1.000	.742
v_affectionSD3	1.000	.630
v_socialprotectionSD10	1.000	.574
v_growth	1.000	.500
v_innovationID1	1.000	.709
v_honestySD7	1.000	.589
v_responsibilitySD6	1.000	.690
v_hardwork	1.000	.639
v_optimism	1.000	.662

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.794	24.263	24.263	6.794	24.263	24.263	3.315	11.841	11.841
2	2.429	8.675	32.937	2.429	8.675	32.937	2.896	10.344	22.185
3	2.151	7.682	40.619	2.151	7.682	40.619	2.840	10.141	32.326
4	1.744	6.228	46.847	1.744	6.228	46.847	2.210	7.895	40.221
5	1.238	4.422	51.270	1.238	4.422	51.270	1.905	6.805	47.026
6	1.218	4.348	55.618	1.218	4.348	55.618	1.737	6.203	53.229
7	1.093	3.903	59.521	1.093	3.903	59.521	1.386	4.949	58.178
8	1.003	3.582	63.103	1.003	3.582	63.103	1.379	4.925	63.103
9	.970	3.466	66.569						
10	.873	3.119	69.687						
11	.841	3.005	72.692						
12	.822	2.937	75.629						
13	.759	2.712	78.342						
14	.682	2.434	80.776						
15	.665	2.375	83.151						
16	.574	2.050	85.201						
17	.549	1.961	87.161						
18	.507	1.812	88.973						
19	.437	1.560	90.533						
20	.426	1.520	92.053						
21	.405	1.448	93.501						
22	.369	1.319	94.819						
23	.319	1.138	95.957						
24	.294	1.049	97.007						
25	.255	.910	97.917						
26	.230	.821	98.738						
27	.189	.676	99.414						
28	.164	.586	100.000						

Extraction Method: Principal Component Analysis.


Scree Plot
8
6
4
2
0
Eigenvalue
1 3 5 7 9 11 13 15 17 19 21 23 25 27
Component Number

13 Annex 6 Hypothesis testing: contextual variables

without context

H8a: *Managerial characteristics will not have an impact on performance*

A two-way between-groups analysis of variance was conducted to investigate the impact of managerial characteristics on performance (Table 1.1). Subjects were divided into groups according to the managerial characteristics of *age* (Group 1: young; Group 2: middle aged; Group 3: older), *education* (Group 1: little; Group 2: some; Group 3: lots), *tenure* (Group 1: short; Group 2: medium; Group 3: long) and *functional experience* (Group 1: short; Group 2: medium; Group 3: long). The results revealed that the interaction effect for age and tenure [$F(4, 77) = 2.348$, $p = .062$] reached statistical significance. A post-hoc comparison using the Tukey HSD test indicated that the mean scores for age and tenure groups were not significantly different. The null hypothesis H_O of managerial characteristics having an impact on performance is accepted and the alternative hypothesis H_A which is the research hypothesis is rejected and modified to reflect that the interaction effect for *age* and *tenure* does reach significance.

H8b Managerial characteristics and strategic orientation will not have a significantly impact on performance

A two-way between-groups analysis of variance was conducted to investigate the impact of managerial characteristics and strategic orientation on performance. Subjects were divided into groups according to the managerial characteristics of age, education, tenure and functional experience. The main effect for strategic orientation [$F(3, 30) = 8.498$, $p = .000$] and education [$F(2, 30) = 7.259$, $p = .003$] reached statistical significance and there was a statistically significant interaction effect for strategic orientation and experience [$F(5, 30) = 2.794$, $p = .035$]. Post-hoc comparisons using the Tukey HSD test revealed no statistically significant differences in mean scores for education or experience.

Table 1.1 Between-subject effects of managerial characteristics

Tests of Between-Subjects Effects

Dependent Variable: P_FINOPS

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	26.962[a]	57	.473	1.038	.435
Intercept	654.523	1	654.523	1436.287	.000
AGECAT	.174	2	.087	.191	.827
EDCAT	.805	2	.403	.883	.418
TENCAT	1.230	2	.615	1.349	.265
TEXYRSCA	1.072	2	.536	1.177	.314
AGECAT * EDCAT	.858	4	.214	.470	.757
AGECAT * TENCAT	**4.279**	**4**	**1.070**	**2.348**	**.062**
EDCAT * TENCAT	.432	4	.108	.237	.917
AGECAT * EDCAT * TENCAT	2.380	6	.397	.871	.521
AGECAT * TEXYRSCA	2.108	4	.527	1.157	.337
EDCAT * TEXYRSCA	1.105	4	.276	.606	.659
AGECAT * EDCAT * TEXYRSCA	1.559	4	.390	.855	.495
TENCAT * TEXYRSCA	1.982	4	.495	1.087	.369
AGECAT * TENCAT * TEXYRSCA	2.998	5	.600	1.316	.266
EDCAT * TENCAT * TEXYRSCA	1.804	7	.258	.566	.782
AGECAT * EDCAT * TENCAT * TEXYRSCA	.000	0	.	.	.
Error	35.089	77	.456		
Total	1512.741	135			
Corrected Total	62.051	134			

a. R Squared = .435

An inspection of estimated marginal means and profile plots of the interaction between experience and strategic orientation (Figure 1.1) revealed that experience varies with strategic orientation that indicates a weak relationship between them. Profile plots of the interaction between education and strategic orientation (Figure 1.2) reveals that performance either stays the same or declines with the amount of education by strategic type. The null hypothesis H_O that managerial characteristics will have an impact on performance is supported and the alternative hypothesis H_A which is the research hypothesis is rejected.

Figure 1.1 Profile plot of estimates marginal means of strategic orientation and experience

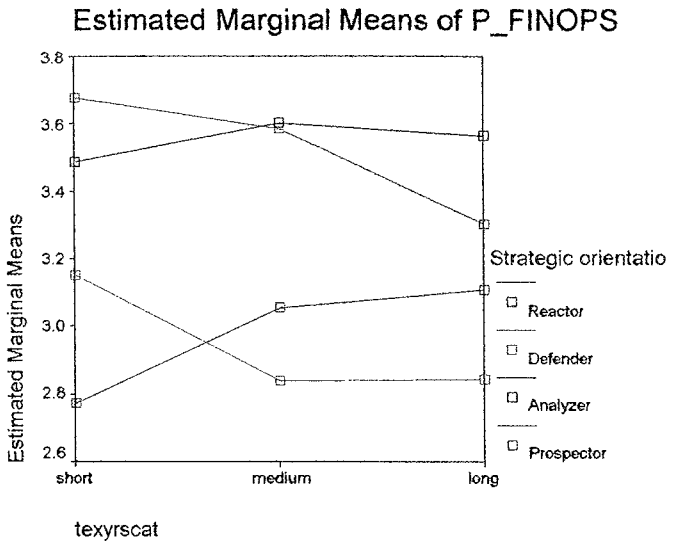
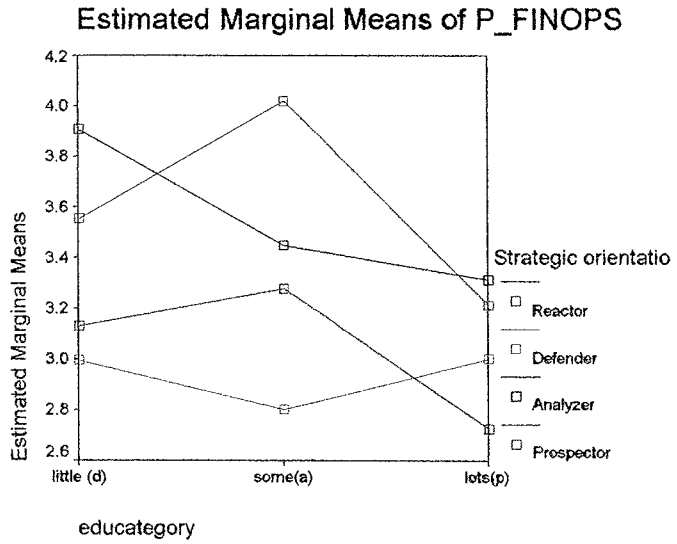


Figure 1.2 Profile plot of estimated marginal means of strategic orientation and education



H9: Firm characteristics will not have an impact on performance

A two-way between-groups analysis of variance was conducted to investigate the impact of firm characteristics on performance. Subjects were divided into groups according to the firm characteristics of *firm age* (Group 1: young; Group 2: middle; Group 3: old) and *firm size* (Group 1: small; Group 2: medium; Group3: large). There was a statistically significant interaction effect for firm age and firm size [F(4, 124) = 2.379, p = .055].

Post-hoc comparisons using the Tukey HSD test indicate that the mean score for the young age ($\overline{X}$ = 3.3520, s = .61249) group was significantly different from the older group ($\overline{X}$ = 3.0139, s = .77234), the mean score of the middle aged group ($\overline{X}$ = 3.4405, s = .59683) was significantly different from the older group and the mean score of the older group was significantly different from both the younger and the middle aged group. The null hypothesis H_O that firm characteristics will have a direct impact on performance is rejected and the alternative hypothesis H_A which is the research hypothesis is accepted.

H10 Industry characteristics will not have an impact on performance

A two-way between-groups analysis of variance was conducted to investigate the impact of industry characteristics on performance. Subjects were divided into groups according to characteristics of industry product/service differentiation (Group 1: undifferentiated; Group 2: some differentiation; Group 3: differentiated). There was a statistically significant main effect for industry differentiation [F(2, 133) = 3.772, p = .026]. Post-hoc comparisons using Tukey HSD test indicated that the mean score for the differentiation group ($\overline{X}$ = 3.4369, s = .63817) was significantly different from the some differentiation group ($\overline{X}$ = 3.1065, s = .65681). The null hypothesis H_O that industry characteristics will have an impact on performance is accepted and the alternative hypothesis H_A which is the research hypothesis is rejected.

14 Annex 7 Profile Plot of Executive values and goal orientation