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Strategy Process in Manufacturing SMEs

by

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ABSTRACT

Strategy process has been widely publicised during the last three decades, but what has been accomplished by strategy management literature in manufacturing small to medium sized enterprises (SMEs)? The application of strategy management in manufacturing SME practices can be seen as posing particular challenges. It is argued in literature that there is a need to understand whether and how managers in manufacturing SMEs have taken up the language and practice of planning, strategic analysis and execution. This research suggests a process and activity based approach to look at the practice of strategy management in SMEs in order to tackle this challenge. This exploratory study based on four comprehensive case studies investigates the strategy stories via exploring key strategic initiatives and activities, how they link together and which strategy tools, methods and techniques are used. This research concludes that a process based approach is useful and valid to understand strategy in SMEs because this view decomposes the process phases into activities which managers are more comfortable to talk through. However, we need to understand SME managers' *language* around strategising. There is an indication that if we change the language of SME managers, the findings of this study would map onto main stream strategy management theory clearly. It is found that the dynamics of the manufacturing SME strategy process have both emergent and planned dimensions. SME managers execute the strategy process mainly from an informal fashion by holding *multiple functions* and with limited application of strategy management methods and techniques. At an activity level, SMEs seem to be putting more emphasis on external environmental scanning (customers, suppliers, competitors, universities and lenders) and defining grand strategy and goals. This implies that SME strategy process is characterised by *market based orientation*, opportunity seeking and strategic awareness rather than resources or core competencies/ capabilities. Although this study's findings may be criticised because they are grounded on four companies, robust dimensions and insights into dynamics of the strategy process in manufacturing SMEs are achieved through saturation among emergent themes in data.

"The quality of research definition, literature review, research design, execution and analysis are well above the standards necessary for the PhD."

External examiner comments after viva examination (25th July 2008)
Prof. Mike Gregory, Cambridge University

1. INTRODUCTION

Numerous developed economies have seen a relative increase in the number of small to medium-sized enterprises (SMEs) compared with large organisations since the 1980s (Ruigrok & Tate, 1996). Therefore, SMEs now provide a major portion of the employment in most European countries (Dutta & Evrard, 1999; Voss et al., 1998). There were approximately 4.3 million businesses in the UK at the start of 2005. The vast majority of these (more than 90%) were SMEs and they provided 47% of the UK private sector employment and 36% of turnover (Anon, 2007a; Dutta & Evrard, 1999; Ruigrok & Tate, 1996). Not only in European economy but also in many industrialised world economies such as the US, Russia and China, SMEs comprise a major part of these countries' economies (Dutta & Evrard, 1999; Mikhailitchenko & Lundstrom, 2006; Ruigrok & Tate, 1996; Vries & Margaret, 2003).

SMEs are important 'engines' to stimulate the economic growth of a country (Van Gils, 2005). Especially it is broadly accepted that manufacturing SMEs play a vital role in the economic health of the country (Ghobadian & O'Regan, 2000; Voss et al., 1998). European SMEs have to compete with emerging economies and therefore it is thought that they should act more strategically in order to survive and grow. If firms are merely focused on short term return on investment and financial performance, they are unlikely to stay competitive in the long term (Mills, Neely, Platts, & Gregory, 1998; Mills, Neely, Platts, Richards, & Gregory, 1998). Poor strategic planning capabilities, short terminism, a lack of focus to external and strategic issues are main areas for limited success of SMEs (Hudson-Smith & Smith, 2007; Hudson, Smart, & Bourne, 2001).

It appears that SMEs are important for economic health and poor strategy management practices are proposed to be one of the reasons of inadequate success of

SMEs (Hudson-Smith & Smith, 2007). So, what is known about strategy in SME context is an important area to further investigate. Literature highlights that strategy is managed in SMEs from an informal and intuitive fashion with a fire fighting approach, short terminism and strategy is shaped in the head of the entrepreneur, owner-manager or the Managing Director merely (Koberg, 1996; Mintzberg and Quinn, 1992; Van de Ven, 1986; Walsh, 1987). However, it is pointed out that the strategic awareness of SME managers and entrepreneurs is the critical determinant of the company's survival and achievements in the long term. SME managers in successful companies recognise that strategic management is an integral business activity (Berry, 1996) performed either consciously and visibly or unconsciously and invisibly (Jennings & Beaver, 1997). Thus, SMEs are important to the economy and it is thought that strategy management is a key area that SME managers should put more emphasis on in order to stay competitive in the *long term*.

The academic literature on entrepreneurship started to discover points of convergence with strategy management through the 1980s (Entrialgo, Fernandez, & Vazquez, 2000; Rae, 2007). For instance, Entrialgo et al. (2000) study the relationship between entrepreneurship and strategic management, from the standpoint of a *process*. However, in literature the majority of studies of SME performance have a tendency to focus on either the symptoms resulting from problems within the firm or upon the reasons cited for failure. Comparatively small analysis of the ingredients that promote and sustain competitive advantage has been undertaken. Despite the fact that generic skills and abilities are requisite, the strategy management process in SMEs is *unique* and can not be considered to the same as professional management in larger organisations practiced on a 'reduced scale' (Jennings & Beaver, 1997, p. 13). Hence, this research aims to address the focus and the activities of the SME strategy process and, this may help the reader understand the practices and language of SME managers concerning strategy.

In conclusion, this research adds to the discussion of the origins of strategy in SMEs; but from a *strategy process* perspective. This research builds on Schendel & Hofer's (1979) pioneering definition of strategic management as processual in character emphasising the development and deployment of strategy. Here, the question *'How does the strategy process work in SMEs?'* challenges managers to

craft and execute a strategy capable of moving the organisation in the anticipated direction, growing its business, and improving its financial and market performance. This research shall indicate the kinds of activities that determine strategic initiatives of SMEs which direct their operations with a major impact.

1.1 Contextualising the Research

This research is part of a multidisciplinary EPSRC (Engineering and Physical Sciences Research Council) funded research project called *Understanding and Managing the Manage Processes: what makes successful companies different?* (Grant Number GR/T25897/01 11603RA3330). Briefly, this research project has a particular focus into *what managers do in SME-like organisations* so as to understand how managerial processes are carried out in companies in order to sustain competitive advantage. In the scope of the research project 37 companies across Europe, majority of which included SME-like companies both independent or subsidiaries, profit/ cost centres of larger organisations, employing less than 250 people, are investigated. Hence, the researcher benefited additional learning and experience by participating in this research project during the last three years as a researcher. She took part in all stages of the research project from research design, case study data collection, and data analysis to dissemination seminars. One of the managerial processes investigated is '*managing strategy*'. Consequently, this PhD study focuses on strategy management in SMEs.

The researcher has developed an interest in strategy management because she studied Industrial Engineering, a degree which looks at different ways, processes and methods to increase efficiency and effectiveness of systems made up of machines, materials and people interaction. After graduation, she worked in a large company, producing TV, set top box and home theatres for the European market with its own brand as well as being a supplier to other leading brands. The researcher worked in materials supply and purchasing department and had the opportunity to work with a number of international SME-like suppliers. In this job experience she developed an increasing interest into the areas of working with manufacturing SMEs as part of her company's supply chain partners.

Hence, the researcher focused on a particular theoretical approach to look at strategy in manufacturing SME context, which is a *process view* because of her industrial engineering background. She felt more comfortable in the frame of mind to look into processes and activities within strategy management. As a starting point she assumed that a process view to strategy would provide useful insights into clarifying manufacturing SME strategy which seems to be a fuzzy concept (Mills et al., 1998) in the head of SME managers (Mintzberg and Quinn, 1992). Then the researcher developed further insights from 37 case studies conducted by the wider research team. For instance, ten pilot case studies, conducted in the UK, implied that managers of SME-like companies which are mainly *manufacturing* SMEs do not necessarily use the word 'strategy' when they talk about longer term health of their company and how they manage their business. However, they mentioned in the interviews that they engaged with a set of activities to run their business and to survive over years. So, what those activities are and how SME managers are performing those activities from a *strategy process perspective* is the broad research question that inspired the researcher to pursue this research. She aims to develop a deeper understanding into SME strategy process. As a result the researcher positioned her PhD topic in *strategy process in manufacturing SME context.*
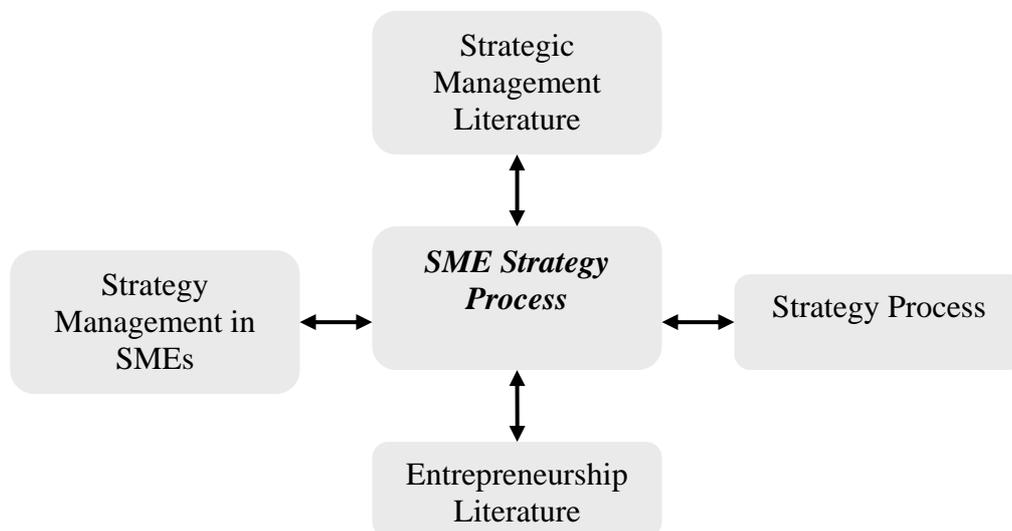
Figure 1.1. Locating SME strategy process as a subject

1.2 Why is this Topic Timely and Interesting to Investigate?

The PhD topic is: *Strategy Process in Manufacturing SMEs.* This topic is important and timely because manufacturing SMEs are important contributors to economy and strategy management is an important area which is thought to contribute survival and growth of SMEs. There are a number of studies that look at large companies and explore strategy processes in those companies. Also, recently there is a growing body of literature around strategic planning and performance in entrepreneurship strategy literature (Hudson-Smith & Smith, 2007; Ghobadian & O'Regan, 2000; Voss et al., 1998; Jennings & Beaver, 1997). This study aims to join this rising academic debate in literature and aims to contribute to knowledge by developing a deeper understanding into manufacturing SME strategy process via articulating activities within the process.

1.3 What Does This Research Do?

This research is broadly aiming to look at 'business level strategy' in manufacturing SMEs in the UK. Banfield *et al.* (1996) suggest that 'business strategy' is the simple business logic which management use to share with shareholders and the stakeholders how they see the environment changing and how their organisation will survive and grow.

The main objective of the research is contributing to extending strategy process theory into a manufacturing SME context by integrating different authors' view on managing strategy so as to bring together current thinking in the field and carrying out a comparative study between theory and practice to clarify this topic. This research does not aim to provide normative suggestions to SME managers so it should not be considered as a how-to thesis, but rather a point of departure for fresh lines of exploratory case study research about the manufacturing SME strategy process.

Five critical research questions are posed, arising from a careful review of literature. Literature review chapter (Chapter 2) gives greater detail about how the following research questions emerged from a literature review.

Broad Research Question: *How does the strategy process work in manufacturing SMEs?* In order to answer the broad research question, the researcher developed further research questions from the relevant literature which are:

Research Question 1. *What are the key activities that are carried out by manufacturing SMEs in the strategy process?* This research question aims to clarify activities within the strategy process in the investigated SMEs.

Research Question 2. *What is the key focus of the strategy process in the context of manufacturing SMEs?* The goal of this research question is to provide some implications for SME strategy scholarship and SME managers by clarifying the key focus of strategy process in the context of manufacturing SMEs.

Research Question 3. *What strategy tools, techniques and methods are being employed in manufacturing SMEs?* This research question aims to address a gap in knowledge about the strategy tools, techniques and method most commonly used when decision making and execution in manufacturing SMEs.

Research Question 4. *How do strategic initiatives and decisions lead to implementation in manufacturing SMEs?* This research question aims to shed light on the linkages between strategic initiatives/ decisions and implementation. The potential catalysts enabling decisions to put into action will be investigated.

Briefly, the objectives set to be accomplished in this research are:

- Identifying what is known about strategy management in manufacturing SMEs from the literature – *Systematic and general literature review will be carried out.*

- Examining a process view as an approach to clarify activities in the manufacturing SME strategy *process - A literature based conceptual framework will be developed and will guide the empirical investigation.*

- Identifying empirical evidence via in depth case studies in four manufacturing SMEs in the UK – *Multiple case study methodology, semi-structured interviews, and non-participant observations will be used.*

1.4 Thesis Structure

Each chapter of the thesis starts with chapter goals which suggest what the researcher can expect to accomplish from the chapter, and help her remind the reader what the research is about, what she is doing and how this is relevant to the research topic. At the end of each chapter there is a summary of what was set out to be achieved and to what extent the objectives are met in that chapter including some critical messages emerging. The thesis is structured in eight chapters, which are introduced below:

Chapter 1. Introduction This chapter sets out the wider context for the thesis introduces the topic and key concepts and outlines the approach and structure.

Chapter 2. A Process-based approach to strategy: A review of manufacturing SME context This literature review chapter explains the theoretical framework for this study which is a 'process based approach to strategy' followed by putting theories together and working them into a conceptual framework. This chapter intends to clarify how manufacturing SME strategy is located in relation to the wider academic literature in strategy and strategic management.

Chapter 3. An overview to management research methodology This chapter concentrates on an introduction of the methodological aspects of management research and introduces a 'research design map' which is a powerful tool to warrant one's research design choices. The role of the researcher's personal preferences and the nature of the research topic are explained. Methods to assess 'research quality' especially in case study research are explored.

Chapter 4. Research design adopted in this study: Case studies This chapter introduces the case study companies and explains how those SMEs were chosen from the larger project database. As a result, this study investigates independent (non-subsidiary) manufacturing SMEs from similar sizes (medium sized) in terms of employee numbers in the UK.

Chapter 5. Case study data collection and presenting The purpose of this chapter is to provide illustrations and case studies of SME strategy process in action. This chapter covers detailed case study selection process, case study protocol refinement, the unit of analysis, data collection process, triangulation of data, detailed case study reports as Appendices and overall case study company profiles.

Chapter 6. Multiple cross-case qualitative data analysis This chapter demonstrates a rigorous qualitative data analysis by using 'coding tables' and 'conceptually ordered maps'. This approach let the data speak and let the story emerge inductively although the conceptual framework guided what the researcher was searching for.

Chapter 7. Discussions This chapter proposes answers to the research questions as being significant for the future development of SME strategy process research, learning, policy and practice. Similarities and differences with the previous research are compared with the current research in this final chapter. This chapter explains how high quality research is accomplished. Finally, the chapter closes with the researcher's personal reflections and learning during the PhD journey and leaves a challenge to the reader: *is strategy as a terminology lifeless in the head of SME managers or does it exist as a set of interrelated activities that managers are more comfortable to talk through?*

Chapter 8. Conclusions The final chapter summarises the key learning points of this research with a short and sharp summary of research aim, findings, and implications to theory and practice. This chapter concludes with condensing the robust insights and dimensions emerging from this study into a framework of dynamics of the manufacturing SME strategy process.

2. A PROCESS-BASED APPROACH TO STRATEGY MANAGEMENT: A Review of SME Context

Strategic management has been deemed to be an important and well established discipline in the management of organisations since 1960s. The field is fairly young and fast growing and has been renamed in 1979 from 'business policy' (Schendel & Hofer, 1979). Strategic management is considered as a discipline first by Schendel and Hofer's book (1979) called 'Strategic Management: A New View of Business Policy and Planning'. However, it is usually declared that the field of strategic management is fragmented; overlapping with several other well developed fields and is deficient in having a consistent identity (Nag, Hambrick, & Chen, 2007). Even though there are a number of different approaches, strategic management has enjoyed a great success over recent years in academia. Nag et al. (2007: 935) imply that strategic management's success as a field comes out from an underlying agreement that enables it to draw 'multiple perspectives', while still maintaining its articulate distinctiveness. Definitions for the relevant terminology is summarised in Appendix IA Glossary.

Looking at general strategic management text books and journal papers as well as using a systematic literature review approach (Tranfield, Denyer, & Smart, 2003), the researcher investigated the different theoretical frameworks to study strategy management. Specific management databases, such as Business Source Premier, Web of Knowledge, Emerald Insight, ABI Inform and Science Direct, were investigated. Main findings from the main stream strategy management literature are mapped by adopting Pettigrew's (1992) Context-Process-Content categorisations of strategy. The mind map of literature helped me to explore the field and develop an appreciation to different views of strategy (Appendix IB).

The following sections give a brief summary of how strategy management developed historically. Finally it explores 'a process based approach' to look into strategy as a *theoretical framework* underlying this research.

2.1 Historical Development of Strategy Management

This research builds on three widely recognised generic approaches to strategy and their implications for managerial practice. These are the Rational (planning/

classical/ analytical) approach, Emergent approach and Processual approach. Before drilling into the detail, it is worth summarising the general implications of each view. The *Rational* view is the oldest and still very influential, using management tools, methods and techniques. *Emergent* approach considers strategy not only as a programmable and deliberate concept but rather an outcome of actions and environmental influences in the form of a realised strategy. *Processual* approach differs from the other two approaches and focuses on the processes and activities by which the strategy is made rather than the outcomes of strategy. Processual view also combines the above two views by considering that there is a *process* of what is emerging.

2.1.1 Rational (Planning / Analytical) approach

Starting with the meaning of 'Strategy' which originally was a Greek word 'strategos' meaning a general, lead and army or a broad set of manoeuvres carried out to triumph over an enemy, the critical idea can be ascertained as having a clear direction supported by a number of plans so as to accomplish a particular outcome (Bracker, 1980; Whittington, 1993). The origin of strategy as a military word can be seen as an indication of deliberate view of strategy as represented in rational approach to strategy where there are clear objectives and goals and the means to accomplish them are deliberated.

In strategic management theory, the strategy definition of Alfred Chandler (1962), who is the recognised first academic researcher of strategy, is classic to represent 'Rational' view to strategic management. Chandler (1962) deems strategy as the means of a precisely planned growth. Structure enables the organisation to manage all those strategic activities and resources. He claims that a set of new courses of action must be developed for growth. Resources are allocated in order to accomplish the goals and to sustain the firm's activities in the new fields responding to changing sources of supply and demand, variable economic conditions, new technological progress, and the performance of competitors.

Chandler (1962) proposes that in a large company strategy management is an identifiable activity and a role of executives as a full time specialised job. Alfred Chandler describes two main management tasks within this job:

- Long term planning and appraisal in order to achieve long-run health of the company

- Responding to immediate problems and needs for handling unexpected contingencies and crises in order to run day to day operations of the business efficiently.

The executives' roles in large organisations are very much focused on long-range planning. However, Chandler (1962) also expresses that in small firms, the entrepreneurs concentrate on day to day operational dealings, giving little or no attention to shifting markets, technology, sources of supply, and other factors influencing the long-term health of their company. They may make decisions within the frame of forward planning or analysis but rather by an *ad hoc* way to every new situation, problem, or crisis as it arises. They accept the goals of their enterprise as inherited or set without giving a second thought. Chandler clearly states that this approach is *not* very effective because wherever entrepreneurs only think about short term activities and exclude or disregard long range planning, appraisal, and coordination, they fail to carry out their role for the benefit of economy and the company.

Similarly, Porter (1980) offers a complete framework of analytical methods to assist an organisation to analyze its industry and foresee the industry's future evolution, to know its competitors and its own position, and to convert this analysis into a competitive strategy for a specific business. Thus, Porter's analytical view on strategy puts a lot of emphasis on *formal strategic planning and formulation* in an organized and disciplined way. Porter proposes that there are several benefits of pursuing a formal strategic planning process explicitly in order to ensure that policies of functional departments are co-ordinated.

Porter is aware of the emergent factors mainly exposed from fierce competition in the market place and external environment; however he proposes powerful management tools, techniques and models focusing on planning and positioning point of view. Moreover, he identifies the driving forces of industry competition such as threat of potential new entrants, bargaining power of buyers, bargaining power of suppliers, threat of substitute products and services and finally rivalry among existing competitors (Porter, 1979, 1980, 1985). Furthermore, Porter (1980) proposes a structural analysis in order to deal with competitive forces and maintain a competitive advantage in the form of three deliberate generic strategies; overall cost leadership, differentiation and focus.

Christensen et al. discuss the importance of *explicit* strategy in their work (Christensen, Andrews, & Bower, 1973). Associated authors such as (Allison, 1971; Ansoff, 1965; Christensen et al., 1973; Porter, 1980, 1985; Sloan, 1963), claim strategy is a rational process of deliberate calculation and examination which results in capitalization of long term competitive advantage. These authors propose that good quality planning is what it requires 'to master internal and external environments'. Strategy matters in that rational analysis and objective decisions create the difference between sustainable success and failure (Whittington, 1993, p. 3). The following is the key feature of planned strategy.

Formal and explicit strategy deliberated from a top-down fashion.

2.1.2 Emergent strategy approach

The first critics to the rational approach began debating its merits pretty quickly. The main argument was around rationalists' interpretation of competition being so simplistic and sterile since it considers the environment as static and unchanging (Whittington, 1993). Rational view look upon strategy as explicit, developed intentionally and purposefully, and made in advance of the precise decisions to which it applies. However, considering strategic management as having two distinct and sequential phases (i.e. *planning* and *executing* as classified in the rational view) resulted in criticism from some scholars in the field (Eden & Van der Heijden, 1993; Lindblom & Braybrooke, 1963; Mintzberg, 1978, 1981, 1987; Mintzberg & Waters, 1985; Quinn, 1978). These authors propose that the execution of strategy should be seen as part of strategic planning.

In other words, strategies seem to be far from being best and right and concrete as they were claimed in rational view. For instance, Weick (1990) tells the true story of a Hungarian detachment that got lost in the Alps during military manoeuvres. As it snowed for two days, the soldiers lost hope and laid themselves down to die in the frozen wilds. Then unexpectedly one of the soldiers found a map in his pocket, the detachment had confidence, and they walked boldly out of the mountains. Safe and sound back at camp, they found out the map was of the Pyrenees. For Weick, strategic plans are often like this map. In fact, it is not the issue if they are mistaken, as long as they provide managers the assurance and sense of purpose to act

(Weick, 1990) in (Whittington, 1993). If the firm sits and hangs around for the right map, it will freeze up; if it gets up and moves about, it will one way or another find direction, gain experience and create its own opportunities. In this way rational approach of formulation coming first and implementation second, gets reversed: strategy is realised in action (March, 1976; Whittington, 1993).

Similarly, Mintzberg and Quinn (1992, p. xiii) argue that in reality, formulation and implementation are tangled as 'complex interactive processes in which politics, values, organisational culture, and management styles' decide or restrict particular strategic decisions. Strategy formulation and implementation may be separated in some situations possibly in crises, in some entirely new ventures, as well as in firms facing unsurprising futures, however these occasions are uncommon. Mintzberg and his colleagues argue that strategies may result from 'human actions but not human designs'. Moving from there they identify intended and realised strategies as shown in Figure 2.1 (Mintzberg & Waters, 1985).

INTENDED STRATEGY

DELIBERATE STRATEGY

REALIZED STRATEGY

UNREALIZED STRATEGY
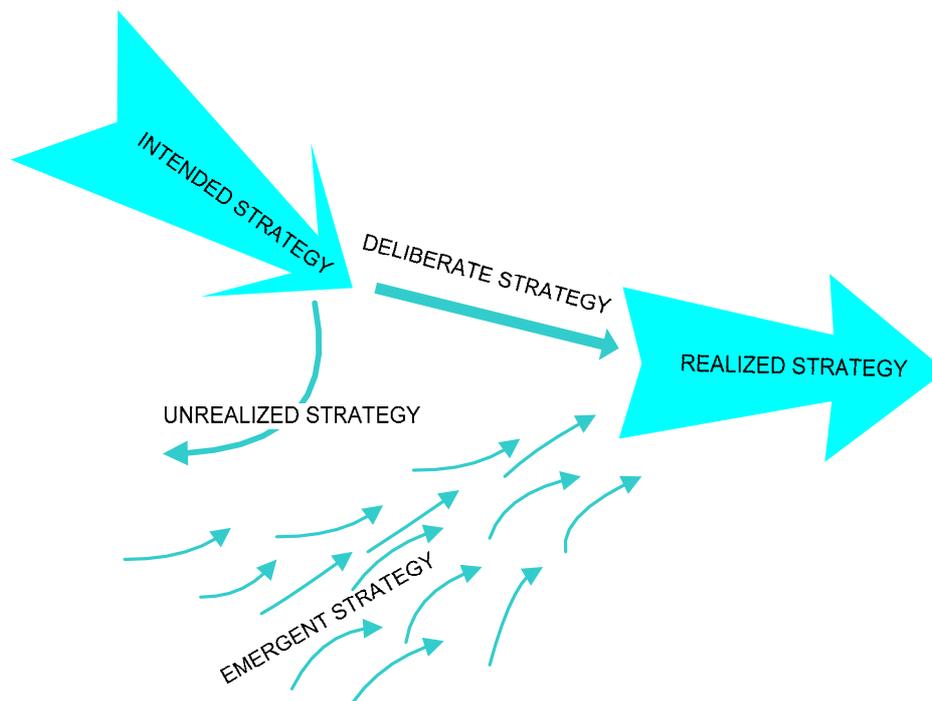
EMERGENT STRATEGY

Figure 2.1. Deliberate and emergent strategies (Mintzberg & Waters, 1985)

Similarly, these authors emphasise the contingencies of the environment which is difficult to predict. Quinn (1978, 1981) introduces in his papers 'logical incrementalism' concepts, explaining how organisations improve their general strategic course one step at a time as new information emerges from the environment.

Quinn criticises the formal planning exercise because it places greater central control over operations instead of inspiring *creative options, opportunity creation, innovation and entrepreneurship*.

To sum up, this alternative view suggests that strategies are not always realized as a result of deliberated and intended top down plans and actions, but rather strategies are results of experiments, learning from operational levels and greatly influenced by negotiations, politics within the organisation, culture and pressure of external factors (Collins & Porras, 1991; Johnson & Scholes, 1999). Thus, this perspective suggests that "strategy as a whole should be seen as crafted through emergent processes, with formal strategy analysis a distraction" (Whittington, Molloy, Mayer, & Smith, 2006, p. 616). The following is the key feature of emergent strategy.

Strategy emerging as a result of interaction with the environment.

2.1.3 Processual approach to strategy

An important view is that while there is a contradiction between a more deliberate/ deterministic approach and a more emergent/ intuitive one in strategy management, there is also an important *complement* between them. Several academics and practitioners emphasise the significance of *task of strategy* and answering *how* question. For instance, Teece, Rumelt, Dosi and Winter (1994) highlight the primary policy process question – how does policy process matter? Similarly, Porter (1996) expresses concern with the leadership and organisational challenges of managing the strategy process. Furthermore, Hamel and Prahalad (2005) and Prahalad and Hamel (1994) urge the field to devote as much attention to the carrying out of strategy (such as the task of strategy making), as they have to its content. Also, for senior managers and leaders, the question of *how* to make successful strategies sits usually at the top of their agenda (Szulanski, Porac, & Doz, 2005).

Pettigrew (1992) has drawn attention to Hofer and Schendel's ground-breaking explanation of strategic management as *processual* in character emphasizing the development and use of strategy (Szulanski *et al.*, 2005). The *strategy process* research stream is attributable to the unhappiness of managers with result of previous attempts at strategic planning, which failed to foresee 'the contingencies of the environment' (Herrmann, 2005, p. 114). In addition, overly sophisticated management activities in planning augmented strategy implementation difficulties (Rumelt et al.,

1994). In contrast to the rational and emergent approaches to strategy, the processual approach e.g. (Johnson & Scholes, 1999; Pettigrew, 1992; Quinn, 1981) has offered rich and systematic descriptions showing that strategy making engages a variety of actors and various contextual influences (Regner, 2005) which is practically proven to be useful to managers.

As pointed out in Regner's (2005) recent work, the most leading strategic management research directions of the 80s and 90s, the market based strategy perspective (e.g. Porter, 1980) and the resource based view (RBV) (e.g. Barney, 2001; Barney, 2001; Jay & Edward, 1994; Wernerfelt, 1984) have interestingly determined that strategy grows out of exploitation of industry and resource compositions. However, how market imperfections and forces regarding entry barriers (Porter, 1980, 1981) and isolating mechanisms (Rumelt, Schendel, & Teece, 1991; 1994) in reality are created (Cockburn, Henderson, & Stern, 2000) is not addressed in these views. Hence, several authors looked at strategy process as comprising of a set of complementary activities integrating resource based view (inside-out) and market based view (outside-in) (Pettigrew, 1992; Pettigrew *et al.*, 2003).

Furthermore, the processual approach takes a *middle view* between emergent and rational views. The processual approach to strategy accounts for the importance of activities and practices comprising those processes as being crafted rather than as analytical science. Managers in general are more and more perceived as 'craftspeople', shaping the material with which they work in a hands-on, almost intuitive manner (Whittington et al., 2006, p. 616; Ackermann, Eden and Brown, 2005). Hence, the processual perspective does *not* see formal strategy work inappropriate, but that this formal work can be re-visualized its nature by *everyday practices and processes* with respect to environmental influences and leadership (Whittington et al., 2006, pp. 625).

Besides, the processual view redress a number of important elements within the organisation and looks at what lies inside the organisation as an integrated set of interrelated concepts which leads to a specific outcome. Interestingly, Whittington (2006) proposes an integrated framework for the analysis of the practice of strategy management in organisations which includes:

- Strategy practitioners (strategist)
- Strategy practices (tools of strategy)
- Strategy praxis (micro element of strategy)

Brown and Duguid (2001) also claim that effective strategy practices are what lie inside the strategy process. This view aims to expand our understanding of the interconnections between strategy activities at the 'intra and extra organisational' stages of analysis (Hodgkinson & Wright, 2006, p. 1895).

However, process and practice are complementary to each other. A study by Brown & Duguid (2001) indicates that *process* assists to coordinate different areas so that their practices, while allowed to flourish, do not grow out of touch with one another. Preferably, processes must allow rigour without rigidity. Process tries to plot a route while practice is apt to pursue the path of slightest resistance. "*Process* emphasizes the explicit side of the organisation that gets things done. In contrast, *practice* emphasizes the implicit coordination and exploration that produces things to do. Practice without process tends to become unmanageable; process without practice results in the loss of creativity needed for sustained competitive advantage" (Brown & Duguid, 2001, pp. 93-94). As a result, the best run firms are those that can preserve forward progress, favouring neither practice nor process, but managing both. So, the key feature of processual strategy is follows:

*Processual strategy treats strategy as something practitioners **do** (Pettigrew, 1992; Chakravarthy and Doz, 1992; Eden and Ackermann, 1998; Johnson ert al., 2003; Whittington et al., 2006, pp. 613). There is a process (deliberated journey - a set of purposeful activities) of what is emerging (strategy content -outcome).*

2.1.4 Underlying Theoretical Framework: A processual view to strategy

Considering the multitude perspectives in strategy literature, the concept of strategy can stand for very different things. However, as pointed out by Mintzberg and Quinn (1992: 12), "explicit recognition of multiple definitions can help people to manoeuvre through this difficult field". Five definition of strategy are:

- **Strategy as plan** – as widely known definition of strategy that setting some sort of consciously intended courses of action, guidelines to deal with a situation
- **Strategy as ploy** – only a precise manoeuvre intended to outperform a competitor
- **Strategy as pattern** – strategy is consistency in behaviour whether or not intended (e.g. Henry Ford offered his Model T only in black, IKEA offering products mainly in flat boxes)
- **Strategy as position** – consists of locating an organisation in the external environment and looks outside of the organisation
- **Strategy as perspective** – looks inside the organisation and broadening the view of a chosen strategy

To make it easier for the reader to follow the reasoning in this study, the researcher should be explicit on her own view. My conception of strategy is certainly not unique. It is in the tradition of strategy process research (Whittington et al., 2006; Ackermann, Eden and Brown, 2005; Johnson, Melin, & Whittington, 2003; Pettigrew, 1992), aiming at describing how strategy is made and executed, rather than prescribing what it should look like. Still, I believe that the ambition to understand strategy processes in an SME context requires openness to contributions from different school of thoughts, including the more rationalistic to emergent views. Rather than putting myself into a predefined box of the strategy field, I therefore want to outline my view of strategy, starting with the notions of definition and theoretical stand that allows for addressing many important aspects of strategy in SMEs.

Firstly, Schendel and Hofer's definition (1979) suggesting strategy management having a processual character which leads organisations' operations is guiding my research.

> *Strategic management is a **process** that is considered with the **entrepreneurial** effort of the organisation, with organisational regeneration and growth, and, above all, with developing and using the strategy which is to direct the organisation's **operations** (Schendel & Hofer, 1979).*

I interpret strategy management as a process embracing a set of activities. I see strategy management dealing with major issues that affect an organisation's operations. Therefore, in an SME context, strategic issues may include operational issues as long as those operational issues have a major impact on the business. Also, I

see strategy not only as a plan evidenced from written down, published documents but also strategy can be a pattern of actions, ploy, perspective or a position as suggested in Mintzberg and Quinn (1992).

To summarise, Table 2.1 represents three theoretical approaches to strategy as explained in previous sections. There is a dominance of rational view in earlier years however emergent and processual views are gaining popularity as the unpredictable environmental factors influencing competition in the global market place are increasing. Recent research since 2000s is interested in strategy process management (Herrmann, 2005). In addition, 'strategy as practice' is emerging as a new area of interest in the strategic management discipline, which looks at activities within strategy processes (Johnson, Melin, & Whittington, 2003; Whittington et al., 2006; Pettigrew, 1992). Finally, this research focuses on *processual approach* as an underlying theoretical framework to empirical investigation. Strategy as an outcome might be emergent or deliberated, however as some authors suggest there may be a process ensuring those strategies whether emergent or intended. The following section will expand on processual theory to strategy more in depth.

Table 2.1. Summary of key focus and authors in strategy approaches

Rational View	Emergent View	Processual View
Key Period		
1960s-1980s	1960s-1990s	1980s-2000
Focus		
- Strategy making is sequential (formulation, then execution) - Business success down to good plans - Strategy formal and explicit - Objective is unambiguous profit maximization - Strategy deliberate - Militarist approach - Environment seen as controllable - Top down - Strategy rational and logical - Grand long-range planning - Decision making heuristic - Extensive use of management tools and models - Analytical - Internal plans - Strategy as science	- Formulation and implementation interactive and not sequential - Business success just being at the right place at the right time - Strategy crafted - Objectives are vague and often emerging in retrospect - Multi objectives not only profit - Strategy emergent and intended - Strategy is messy - Strategy can be discovered in action not only through isolated calculations - Logical incrementalism - Environment unpredictable and uncontrollable - Focus on day-to-day viability while trying to keep options open - External market focus - Intuitive - Strategy as art	- Strategy making through experimentation and learning - Get hands dirty "science of muddling through" - Strategy is socially embedded in organisations - Successive small steps eventually merging into patterns - Combination of internal and external environment focusing on strategic fit - Negotiations, politics, cultural influences and coaching and bargaining - Practice and activity based approach - Strategy making at all levels not only senior management job - Strategy building on core competencies
Key Authors		
(Allison, 1971; Andrews, 1971; Ansoff, 1965; Chandler, 1962; Christensen et al., 1973; Learned, Christensen, Andrews, & Guth, 1965; Porter, 1980; Sloan, 1963)	(Eden & Ackermann, 1993; Lindblom & Braybrooke, 1963; Mintzberg, 1978; Mintzberg & McHugh, 1985; Mintzberg & Waters, 1985; Quinn, 1978)	(Camillus, Sessions, & Webb, 1998; Chakravarthy, Mueller-Stewens, Lorange, & Lechner, 2003; Chakravarthy & Doz, 1992; Eden & Ackermann, 1998; Jemison, 1981; Miller & Friesen, 1983; Pettigrew, 1992; Pettigrew, Thomas, & Whittington, 2002; Quinn, 1981; Schendel & Hofer, 1979; Teece, 1990; Van Cauwenbergh & Cool, 1982; Van de Ven, 1992; Van der Heijden, Bradfield, Burt, Cairns, & Wright, 2002; Whittington et al., 2006; Wit & Meyer, 2003)

Two of the central elements of strategy management are sustaining competitive advantage and engaging with long term horizons. Investigating the journey to achieving this is the task of strategy process research. Strategy process research attempts to address the question of how strategies are formed, implemented and changed. Strategy process researchers claim that there is a process of what is emerging (strategy content - outcome). For example, one of eight strategies of Mintzberg & Waters (1985, pp. 270) is *process strategy* and is described as (Figure 2.2):

'The leadership controls the process aspects of strategy (who gets hired and so gets a chance to influence strategy, what structures they work within, etc.), leaving the actual content of strategy to others: strategies are again partly deliberated (concerning process) and partly emergent (concerning content), and deliberately emergent.'
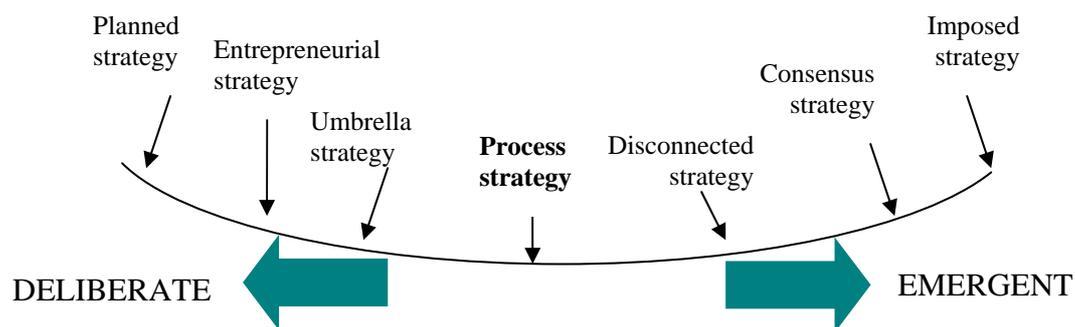
Figure 2.2. Various kinds of strategies, from rather *deliberate* to mostly *emergent* (Mintzberg & Waters, 1985)

There are different subdivisions to strategy process in literature such as Mintzberg's 10 schools of thoughts (Mintzberg *et al.,* 2000) that are the Design school, Planning school, Positioning school, Entrepreneurial school, Cognitive school, Learning school, Power school, Cultural school, Environmental school and Configuration school' and Whittington's (Whittington *et al.,* 1999) subdivisions i.e. Classic school, Evolutionary school, Processual school and Systemic school. Each of these schools has individual premises and unique implications for practice.

As suggested by Whittington (2006), strategy practice comprises of strategy practitioners, tools of strategy and micro elements of strategy. Particularly, strategy

practitioner is an important element to understand the strategy processes which covers *leadership*. Furthermore, the competitive advantage of SMEs is often tied to contingent factors such as being in the right place at the same time and 'luck' which cannot be foreseen and formalised (Jennings and Beaver, 1997). Similarly, strategy management practices are closely linked to the skill and characteristics of the entrepreneurs. Usually he/she is in charge of both operational and managerial functions, he/she often plays multiple roles like general manager, sales manager, production manager but he/she usually does not have the necessary and he/she usually neglects the strategic activities (Fuller-Love, 2006). It is also highlighted in literature that strategy is in the head of the entrepreneur and the senior managers in SMEs (Mintzberg & Quinn, 1992). Consequently, the researcher considers that leadership and the influence of leaders/ strategist although being very important, in this research will not be addressed as being the key focus. Strategy tools, methods and techniques as well as activities within the strategy process will be the elements of the underlying theoretical framework in this research (adapted from Whittington, 2006).

> - Strategy practitioners – entrepreneurs, owner-manager, MD, managers (leadership)
> - Tools, methods and techniques of strategy
> - Activities within the strategy process   } Focus of theoretical framework for this study

Strategy process has been widely publicised during the last two decades, but what has been accomplished by this strategy management process in small to medium sized enterprises (SMEs)? The next section will explore what is known in entrepreneurship strategy and SME specific strategy management literature about this topic.

2.2 SME Strategy

Using a systematic literature review approach (Tranfield, Denyer, & Smart, 2003), the researcher investigated the main features of strategy process in SMEs in order to put the research topic into its context. Specific management databases, such as Business Source Premier, Web of Knowledge, Emerald Insight, ABI Inform and Science Direct, were investigated via using following key words:

- (strategic management) AND (SME*) OR (small business)

- (small business) AND (strateg* process)

- (strateg* process*) AND (SME*) OR (small business)

- (strateg* development) AND (SME*)

- (strateg* implement*) AND (SME*)

- (strateg* review*) AND (SME*) OR (small business)

- (strateg*) AND (SME*)

- (strateg* management) AND (small business)

Abstract and citation search was carried out according to some inclusion and exclusion criteria. Because this research has a particular interest in manufacturing or production SMEs, empirical studies focused on service sector companies only are excluded. Studies focusing on information systems merely and papers written in other languages rather than English are also excluded.

The database resulted in 497 relevant articles. The chosen studies were analysed and integrated with some available empirical studies focused on the small business, entrepreneurship and manufacturing SME fields. It is worth noting that, some significant books and other sources are not neglected in this study, mainly because the researcher believes that carrying out a systematic literature review might not be sufficient enough since text books are overlooked in the databases. Thus, the researcher not only benefits from systematic literature review principles to investigate the topic but also she applies a conventional literature search so as to cover other significant sources. Based on the literature, seven main SME characteristics were highlighted as affecting SME strategy process. These are; flexibility and responsiveness, pursuit of opportunities, risk taking, innovation, unconventional thinking and creativity, less structured decision making mechanisms, organising and allocating limited economic resources effectively and last but not least operational focus.

Literature highlights the importance of SMEs in economy and recognises SME contribution to economic health of countries (Dutta & Evrard, 1999; Ghobadian & O'Regan, 2000; Mikhailitchenko & Lundstrom, 2006; Ruigrok & Tate, 1996; Van Gils, 2005; Vries & Margaret, 2003).

2.2.1 What is an SME?

SME context matters and therefore it is important to define what an SME is. SME stands for small to medium-sized enterprise, in other words, a business with

fewer than 250 employees. However, there is no single definition in literature. Generally, micro-businesses are those with 0-9 employees, small businesses have 10-49 employees, medium-sized businesses have 50-249 employees, and large businesses 250+ employees. An SME represents independent companies with a number of employees less than 250 persons (Annual working unit) and/or its turnover is less than EUR 50 million and/or its annual balance sheet total is less than EUR43 million (European Commission definition, 2008).

There are other definitions in literature, for example, that of The Companies Act 1985 or the European Definition of an SME (Anon, 2007a). A company (or group) qualifies as a small or medium-sized company (or group) if it meets two out of three criteria relating to turnover, balance sheet total and number of employees as set out below in Table 2.2 in its first financial year, or in the case of a subsequent year, in that year and the preceding year (Anon, 2007b).

Table 2.2. SME definition

	Turnover	Balance sheet total	Number of employees
Small company	not more than £5.6 million	not more than £2.8 million	not more than 50
Small group	not more than £5.6 million net (or £6.72 million gross)	not more than £2.8 million net (or £3.36 million gross)	not more than 50
Medium-sized company	not more than £22.8 million	not more than £11.4 million	not more than 250
Medium-sized group	not more than £22.8 million net (or £27.36 million gross)	not more than £11.4 million net (or £13.68 million gross)	not more than 250

2.2.2 Entrepreneurship strategy and strategic management

The academic literature on entrepreneurship started to discover points of convergence with strategic management through the 1980s (Entrialgo, Fernandez, & Vazquez, 2000; Rae, 2007). For instance, (Entrialgo et al., 2000) study the relationship between entrepreneurship and strategic management, from the standpoint of a *process*.

On the one hand, strategic development of SMEs should be a concern for larger organisation managers and practitioners due to the emerging role of SMEs in international business operations. The diversification of international business

connects SMEs in joint ventures and international integration of SMEs with larger firms renders small business studies both an attractive and relevant research topic (Mikhailitchenko & Lundstrom, 2006). Large firms no longer dominate niche markets; on the other hand, SMEs are often operating within supply chains in which large companies set demanding standards and requirements. For instance, Gilmore (1966: 48) gives an example in his article that a key challenge to the 'small traditionally managed business', which desires to be a main contractor, is that it must perform long-range planning to decide where it will allocate its limited resources so as to be in a position to make the strongest technical proposals.

To sum up, SMEs engage with global industrial restructuring in at least five key ways: "by being partners to strategic alliances; by being participants in mergers and acquisitions; by being specialised suppliers to multinational companies; by being members of global informal networks; and by participating in global electronic networks" (Griffiths, Wall, Zimmermann, & Klingebiel, 2007, p. 15). For example, IKEA, the Swedish furniture mass distribution firm, carefully monitors "subcontracting of production to specialized manufacturers ensured quality at a lower cost" (Mintzberg & Quinn, 1992, p. 92). Hence, strategic development of SMEs is an interest for large, multinational companies in today's global environment and strategy in an SME context has been attracting an important amount of consideration in literature recently.

Furthermore, interest in the field of organisational development in SMEs has increased significantly among policy makers and practitioners in recent decades. For instance, the UK government Department for Business, Enterprise and Regulatory Reform as well as the European Commission support and sponsor projects that look at SME development (http://www.berr.gov.uk/ and http://ec.europa.eu/index_en.htm).

On the other hand, literature and practice highlight that the small firm is not a 'scaled down' version of a large firm (Storey, 1986) and that there is the need to stimulate development of managerial capacity in SMEs considering the distinctive factors characterizing the strategy process in those companies. However, in literature the majority of studies of SME performance have a tendency to focus on either the symptoms resulting from problems within the firm or upon the reasons cited for failure. Comparatively small analysis of the ingredients that promote and sustain competitive advantage has been undertaken. Despite the fact that generic skills and abilities are requisite, the strategy management process in SMEs is *unique* and cannot

be considered to be the same as professional management in larger organisations practiced on a 'reduced scale' (Jennings & Beaver, 1997, p. 13). Consequently, the broad research question in this research has emerged which is:

Research Question: How does the strategy process work in SMEs?

In order to seek answers to this broad research question, the following research question is emerging as a key area to look at because it is important to understand the specific context of SMEs in the strategy process.

Research Question: What is the key focus of the strategy process in SMEs?

2.3 Key Focus of the SME Strategy

Literature suggests that flexibility and responsiveness - operational flexibility, and responsiveness to customers; opportunity seeking; risk taking; innovation and creativity; less structured and random decision making; effective resource allocation and operational excellence are the main focuses of successful SME strategy. The following sections aim to expand on those focuses.

2.3.1 Flexibility and responsiveness

Flexibility, opportunity creation and risk taking are common characteristics of SMEs (Aloulou & Fayolle, 2005; Margi, Philip, & Philip, 2002). Particularly, managing growth in an innovative start-up firm necessitates flexibility and contingency planning (Dean, 1986). Managerial activities in SMEs are generally characterised by flexibility and an ability to rapidly react and adapt to the competitive environment with business processes which are not very structured or engineered. In large companies, it is a common practice to observe formalized processes to manage operational activities whereas SMEs take on less structured systems and processes whilst decision making and managing the whole business. This activity might be related to the responsive and flexible nature of SMEs, however the lack of unambiguous knowledge causes difficulties in transferring know-how rapidly (Eriksen and Mikkelsen, 1996: 68); the long period communication in a group necessary to transfer knowledge could hinder the flexibility.

Significantly, a study by Duchesneau & Gartner (1990) and Enderwick & Ronayne (2004) point out that successful SMEs are more flexible, responsive,

participative, and adaptive with employees who could carry out the work duties of others and were likely to be managed in a way that given these workers with the flexibility to adapt their jobs to altering industry and organisational situations. Besides, Entrialgo et al. (2000) analysed the influence of the competitive strategy and the practices of analysis, flexibility, horizon, planning and control attributes on entrepreneurship. The results were tested on 233 Spanish SMEs and revealed a positive relationship between entrepreneurship and analysis, flexibility, planning, control and strategy based on differentiation.

2.3.2 Pursuit of opportunities

It is the research of French speaking research on management that shows substantial evidence about the notion of entrepreneurship during the 1990s. Many studies focused on business creation but entrepreneurship could be deemed more generally as the active pursuit of new opportunities (Messeghem, 2003).

SMEs might show willingness to pursue opportunities, to marshal resources and initiate actions rather than to react to other people's actions (Neshamba, 2006). However, most SMEs accept their environment as given and put in the mechanisms to react to its forces. Entrepreneurial strategic orientation encapsulates discovery and exploitation of opportunities and this is found to be positively related to enhanced firm performance in SMEs (Wiklund & Shepherd, 2003). Only high performers match the complexity of their external environment by exploiting environmental parameters as sources for effective controls within their organisations (Badri, Davis, & Davis, 2000).

Among the latest studies Companys & McMullen (2007) integrated three different approaches to opportunity creation and exploitation process. They suggest that entrepreneurial opportunities exist owing to the circulation of information about material resources in the public. Entrepreneurial opportunities might also stay alive as a result of environmental ambiguity and the cultural resources on hand to deduce and identify these opportunities. Finally, networks and political structures might have a considerable part in entrepreneurial opportunities.

2.3.3 Risk taking

Literature points out degrees of entrepreneurial behaviour regarding risk taking characteristic, from the cautious and incremental level of 'building on what

works' to the risk-taking and adventurous 'leaps into the unknown' in SMEs. Aloulou & Fayolle (2005) suggests three components of strategic entrepreneurship that are innovativeness, proactiveness and risk taking. More recent work by Rae (2007, p. 25) identifies 'innovation, decision-making, leading an industry, organising economic resources, contracting, arbitrage (market-maker) and allocating resources' as attributes to entrepreneurship strategy. He also particularly identifies 'risk taking' as a trait of processual definitions for entrepreneurs.

2.3.4 Innovation, unconventional thinking and creativity

SMEs act a key role in innovative contribution and expansion of the global economy (Allocca & Kessler, 2006). Combining innovation with foreseeing and acting on opportunities is a vital aspect of entrepreneurial behaviour, which involves 'going beyond' the borders of what is known and customary, rather than just replicating something which already exists, although the scale of innovation may be little (Rae, 2007). SMEs engage with strategic plans and have particular focus on innovation with the ability to lift up their heads above the day-to-day struggle for survival (Aloulou & Fayolle, 2005; Ghobadian, Mole, & Regan, 2003).

2.3.5 Less structured decision making mechanisms

The literature also points out that strategic decision making within SMEs is a necessary element for business growth so as to adapt and become more efficient and dynamic within current business paths and to find new paths and firm's survival and success in the long term (Berry, 1996; McGovern, 2006; Spillan & Ziemnowicz, 2003). However, strategic decision making in small firms is often described as being implicit or even as a process distinguished by reactive, short-term oriented, incremental behaviour. Strategy in small business is considered to be enacted in a highly personalised manner and is strongly influenced by the actions, abilities, and personality and success criteria of the key role players (Beaver & Prince, 2004). Therefore a disorganised, chaotic, random management decision process (Dean, 1986) is common in SMEs. Managers of small firms lack methods for systematically and explicitly analyzing their strategic situation and the potential for future development of their firms (Bamberger, 1982).

Then again, SMEs usually act in a reactive manner; therefore, the level of strategic planning is poor and there are only a few formalized decision making

processes. The lack of explicit strategies and methodologies leads to a short term vision (Brouthers, Andriessen, & Nicolaes, 1998). The prevalence of tacit knowledge, which is context-specific and almost entirely technical in nature, limits tendency to formalize. The SME owner is often convinced that successfully operating in the particular niche is solely based on his/her long and day-by-day experience (Cagliano, Blackmon, & Voss, 2001). The lack of formalization and amateur spirit are often considered useful, as opposed to bureaucracy, and is very much tied to the capability of an organisation to be flexible, fast and responsive (Chittenden, 1998). Thus, some small companies tend to take on formal quality systems only when there is strong external pressure to do so and that when they do, there is usually a minimalist approach to implementing the ISO standards (Sturkenboom, Van der Wiele, & Brown, 2001).

Recent studies highlight that in SMEs knowledge is mainly gained through experiences and it often absorbed by means of tacit learning (Chaston, 2001; Honig, 2001; Ward, 2004). Cagliano et al. (2001) point out that advanced decision making practices in SMEs seem to take place characteristically in a less structured and informal fashion. However, other authors indicate that formalization could enable SMEs to save resources and to concentrate efforts on promoting effectiveness, improving morale and increasing innovation (Koberg, 1996; Van de Ven, 1986; Walsh, 1987).

In summary, successful small firms practise strategic management either consciously and visibly or unconsciously and invisibly. The root cause of either small business failure or poor performance is almost invariably a lack of management attention to strategic issues (Jennings & Beaver, 1997). However, strategy management in SMEs seems to take place characteristically in a less structured and informal fashion (Cagliano *et al.*, 2001; Hudson *et al.*, 2001). Hence, the success of small firms is generally credited to the personal and managerial skills of the company's leader rather than to any specific management practices or processes as described in Minzberg's Entrepreneurship Context view. In contrast to current characteristics of SMEs, Cagliano *et al.* (2001) point out that there is a call for facilitating the adoption of advanced management practices in decision making processes by small companies.

2.3.6 Organising and allocating limited economic resources effectively

Since SMEs are overloaded with short term cash and payment problems, technical issues and in particular limited resources (Alon, 2004; Burke & Gaughran, 2006; Celuch, Murphy, & Callaway, 2007; Dean, 1986; Hudson-Smith & Smith, 2007; Kennedy & Keeney, 2006; MacDougall, 2003; Martine, 2003; Qian & Li, 2003; Savioz & Blum, 2002; Thakur, 1999; Wesson & De Figueiredo, 2001) their strategy process focuses on attracting outstanding employees, *using resources effectively* and engaging with universities to benefit from their information sources and know-how. For instance, SMEs do not have the resources required to research environmental aspects of their business and extensive research and testing of products and services (Alon, 2004; Burke & Gaughran, 2006).

2.3.7 Operational focus

Managerial practices in SMEs emerge mostly in response to operational needs, which present themselves at the start-up of the business. Improvements are not planned, but rather are made only in response to contingent and emerging problems and often offer short term solutions (Jennings & Beaver, 1997). The focus on technical aspects and operational issues seems to emerge from a conviction that the only real determining factor for competitive success is the technical excellence of the product and production processes. In these companies managerial tools and techniques are perceived as being of little benefit to the company. In SMEs planning is usually absent or limited only to the operation levels where performance is measured (Cagliano et al., 2001).

In conclusion, strategic management is part of every business and constitutes an important road map to good business operations (Spillan & Ziemnowicz, 2003) in SMEs. Consequently, in contrast to current characteristics of SMEs, several authors, (Cagliano et al., 2001; Ghobadian & O'Regan, 2002; Gilmore, 1966; Jennings & Beaver, 1997) point out that there is a call for facilitating the adoption of advanced strategy management practices, activities and strategic awareness by small and medium sized companies especially those which are growth oriented. SMEs should develop skills to manage strategy processes, i.e. the processes that primarily affect the way management operate when making decisions and exercising control (Teece, Pisano, & Shuen, 1997) as well as determining how well a competitive advantage is sustained. As a result, Schendel and Hofer's (1979) definition for strategic

management is chosen to guide this research because their definition is appropriate in an SME context which emphasises the above characteristics of SME companies.

> *Strategic management is a **process** that is considered with the entrepreneurial effort of the organisation, with organisational regeneration and growth, and, above all, with developing and using the strategy which is to direct the organisation's **operations** (Schendel & Hofer, 1979).*

As it is pointed out in Schendel and Hofer's definition, this research considers that SMEs strategy process may be related to major strategic decisions and initiatives such as business regeneration and growth as well as operational issues. Mainly, because SMEs have a particular focus on accomplishing *operational excellence* in their strategy process; therefore this research shall consider operational level major decisions, initiatives and activities as part of the SME strategy process.

2.3.8 Further research questions

As I have read more in the relevant literature, I have increasingly become aware that in spite of the increasing number and significance of SMEs, there has been little explicit examination of SME strategy process in literature. Managers of new SMEs must discover ways to compete in a world which had got along without them before. Starting with no reputation and limited financial and human resources, they must "seek out opportunities and develop strategies" which allow them to compete, sometimes in industries dominated by large, well-known companies (Cooper, Willard, & Woo, 1986; Mintzberg & Quinn, 1992, p. 253). Hence, SME context is very interesting to look at strategically. Literature points out the evolution of successful SMEs that if SMEs are booming in developing markets, they will sooner or later evolve into large organisations. As these firms grow, they become more complex and the necessary strategy management processes may cause such firms to take on characteristics of larger competitors, slowing responsiveness and "dulling the competitive edge they once held" (Cooper et al., 1986, p. 258). Consequently, this research identified a gap in literature which will be further addressed through empirical work in the following chapters.

In summary, strategy process in an SME context is focused on seven areas i.e. flexibility, pursuing opportunities, risk taking, innovation and creativity, less structured decisions making, effective resource allocation and operational excellence. Literature points out that it is the *activities* or *action*s of the entrepreneurs and the management teams that are more significant in achieving business outcomes such as flexibility, growth (Neshamba, 2006) and so on which was elaborated in previous sections (from Section 2.3.1 to 2.3.7). Now we need to look at what kind of activities are behind accomplishing flexibility, opportunity seeking and exploitation, operational excellence and so on. Similarly, Porter (1980, 1985) suggests that the pursuit of business level strategy can be best achieved when strategic decision makers centre their attention on those *activities* most pertinent to that particular strategy. Consequently, the researcher developed the below research question which will be addressed through a literature review and an empirical investigation.

> ***Research Question:*** *What are the key strategic activities that are carried out by SMEs in the strategy process?*

Taking a processual approach to strategy (Whittington, 1996; Johnson et al., 2003; Pettigrew, 1992), it is concerned with how SME managers use the tools, methods and techniques as they undertake activities in the strategy process. The term "strategy tools, methods and techniques" are used here to encompass the approaches to structure or influence the activities within the strategy process.

Strategy tools used in decision making and execution is an important area which might contribute to developing an understanding of how strategy process works in SMEs. Thus, the next research questions deduced from the literature are:

Research Question: What strategy tools, techniques and methods are being employed in SMEs?

2.3.9 Strategy tools, methods and techniques

In literature, several authors described the phases and activities within strategy processes through different process models and frameworks (Table 2.1). They suggest different management tools, methods and techniques (Wright, van der Heijden, Burt, Bradfield, & Cairns, 2008; Jarzabkowski & Wilson, 2006; Knott, 2006; Platts & Tan Kim, 2004; Verity, 2003; Frost, 2003; Drozdow and Carroll, 1997) to assist the analysis of those phases and effectively carry out those activities Some examples as suggested in literature are SWOT (since 1960s), Scenario planning, Benchmarking, PEST (Political, Economic, Social and Technological), BCG (Boston Consulting Group) Growth-Share Matrix (since 1970s), GE Matrix (Market Attractiveness – Business Strength) (since 1970s), PIMS analysis (1970s, early 1980s), Porter's 5 Force Model, Porter's Generic Competitive Strategies, Value Chain, McKinsey 7S Model , Resource Based View, Balanced Scorecard, Strategic Group Map, Bowman's Strategy Clock, Blue Ocean Four Actions Framework, VRIO (Valuable, Rare, Inimitable and Organised resources) Analysis and Strategic Factor Analysis Summary (SFAS).

SME literature emphasises that SWOT, PEST and budgeting are among mostly used strategy tools and techniques (Frost, 2003; Drozdow and Carroll, 1997).

2.4 Towards a Conceptual Framework for the SME Strategy Process

In literature there are a number of studies that look at strategy process and key strategic activities (Knight, 2001; Rantakyro, 2000). Some studies suggest that high performing SMEs place higher emphasis on strategy process and strategy process attributes than low performers (O'Regan, Ghobadian, & Gallear, 2006). It is also suggested that strategic activity in SMEs is much more informal, intuitive and invisible than being rational or planned (Beaver & Prince, 2004). The next section will summarise a literature review of relevant studies with a particular focus on small to medium sized firms and key strategy process activities in those firms. Those emerging themes from the relevant literature around SMEs revealed the following strategic activities within strategy process; environmental scanning, strategic

planning, strategy implementation, evaluating opportunities, selecting strategy, communication, reorganisation and organisational change management and strategy reformulation. These activities have convergence with main stream strategy process literature that is heavily based on larger non-SME organisations.

2.4.1 Environmental scanning/ gathering, assimilating and processing internal and external environmental information

Environmental scanning is commonly viewed by strategic management scholars, investigating SMEs, as a prerequisite to formulating and implementing effective business strategies (Beal, 2000; Côté, Vézina, & Sabourin, 2005; Ginn & Sexton, 1990). Not surprisingly, it is widely viewed as the first step in the process of strategic management. Likewise, Analoui and Karami (2002) suggest that environmental scanning is a key factor to persistent competitive advantage of the firm and it is becoming increasingly important in SME theory and practice. Moreover, effective scanning of the environment is seen as necessary to the successful alignment of competitive strategies with environmental requirements and the achievement of outstanding performance in SMEs. Aloulou and Fayolle (2005) explore the relationship in the context of British electrical and electronic industry. The findings of a survey of 132 CEO and their perception of environmental scanning and strategy in SMEs revealed that there is a significant relationship between increasing the environmental scanning activities of the firm, and the increase of the firm's performance in SMEs.

Interestingly, a study by Groom and David (2001) highlighted that most SMEs adequately audit their internal environment, but many lack the methodology to properly and accurately assess the external environment. This might be due to SMEs not having the resources required to research all environmental aspects of their businesses (Burke & Gaughran, 2006).

2.4.2 Strategic planning/ formulation/ strategy development process

Several scholars suggest that strategic planning is an established management tool with SMEs engaging in formal strategic planning (Barnes, 2002; Berry, 1998; Chan & Foster, 2001; Cooper, 1981; Côté et al., 2005; De Jong & Marsili, 2006; Entrialgo et al., 2000; Ghobadian & O'Regan, 2002; McCarthy, 2003; O'Regan & Ghobadian, 2007; O'Regan, Ghobadian, & Sims, 2005; Pelham & Lieb, 2004;

Shuman & Seeger, 1986; Stonehouse & Pemberton, 2002). Although, strategic planning is assuming a greater importance in manufacturing SMEs in the UK as well as large firms, the lack of strategic planning is considered by some reporters to be the foremost reason for the failure of many of the strategic initiatives designed to make SMEs more competitive (O'Regan & Ghobadian, 2004). Similarly, a study by Waalewijn and Segaar (1993) investigated the practice of strategic management in 200 medium-sized firms in the Netherlands and concluded that over 80% of the companies demonstrated poor strategic planning and thinking capabilities and reported that no long-term plans were prepared. Most of the firms had a financial planning system anchored in a very simple budget, and no activities were undertaken that could be considered as strategic planning.

In contrast, a study by Baker, Addams and Davis (1993) discovered that in spite of a diversity of obstacles, over half of the SMEs perform strategic planning on a regular basis and they suggest that fast growing firms develop written business plans as an output of strategic planning. They also found out that strategic planning is positively associated with a firm's profitability. Similarly, it is proposed that successful SMEs spend more time planning (237 hours) than unsuccessful firms (85 hours) however most ventures are found to be not possessing any written or published business plans (Duchesneau & Gartner, 1990).

There are different views regarding the characteristics of strategic planning in SMEs in literature. Firstly, Barnes (2002) suggests that manufacturing strategy is formed in a complex process involving an amalgamation of deliberate and emergent actions and decisions. Secondly, Aram and Cowen (1990) argue that *formal* strategic planning exist in SMEs and needs to blend with team development to generate the concept of *strategy in use* out of a planning process. Similarly, Lyles, Baird, Orris and Kuratko (1993) suggest that as small business owners adopt more formal and structured planning processes and that there is a significant increase in the thoroughness of their decision process, their overall financial performance improves (Bracker, Keats, & Pearson, 1988). Thus, small business owners may realise a competitive advantage through the use of formal planning procedures to enhance their strategic management process. Thirdly, Verreynne (2006) concluded from her research, which is tested out in 477 SMEs with less than 100 employees, that the strategy making process is more simplistic in SMEs. Likewise, Banfield, Jennings and Beaver (1996) addressed strategy development and implementation in their article and

concluded that SMEs, which are experiencing rapid change and applying traditional approaches to corporate planning, are too bureaucratic. They need to be supplemented with new approaches which enable management to manage strategy and to develop strategies for implementation. In short, SME strategic planning process is characterised by being formal or informal and simplistic or complex.

Furthermore, some authors suggest some activities within strategic planning, for example, Serizawa (1989) describes the transition of a small joint Japanese-American venture company to an independent SME with engineering and marketing power. The author outlines the development of the company 'motto, philosophy and vision', and the basic management strategies that were formulated, and their success within strategic planning process. Besides, SWOT is suggested as a powerful tool in strategic planning in SMEs. Moreover good performance within a company is proposed to be the result of optimum interaction of business management with its internal and external environment. The acknowledgment of internal strengths and weaknesses as well as external opportunities and threats takes place on the basis of SWOT analysis in developing SME business strategy. However, despite the importance of this, many SMEs often only have vague thoughts of their competitive strengths and weaknesses (Houben, Lenie, & Vanhoof, 1999).

2.4.3 Deployment of strategic plans/ implementation/ execution

Implementation is considered as a major phase within the strategy process in SMEs by several authors (Côté et al., 2005; Hudson-Smith & Smith, 2007; O'Regan & Ghobadian, 2002; O'Regan et al., 2005; Pelham & Lieb, 2004). Some authors suggest contextual factors (Cooper, 1981) influencing strategy formulation and implementation and strategy implementation methodologies (Tennant & Tanoren, 2005) such as Balanced Scorecard in small firms. However SMEs in the UK are found to be unaware of Balanced Scorecard and the usage rate among SMEs is very low (Tennant & Tanoren, 2005).

2.4.4 Discovering and exploiting opportunities

Evaluating opportunities is pointed out as a process in literature which is influenced by entrepreneurial orientation. Companys & McMullen (2007) and Messeghem (2003) investigate the process of discovering, evaluating and exploiting opportunities in the environment so as to create value and competitive advantage.

They integrate different perspectives in entrepreneurial and strategic management literature into a process which describes how to seek opportunities and evaluate them. Moreover, Wiklund and Shepherd (2003) investigates the link between organisational performance and opportunity exploitation process and argue that a firm's entrepreneurial strategic orientation captures a significant facet of the way a firm is organised. The authors conclude that knowledge based resources that are pertinent to discovery and exploitation of opportunities are positively related to firm performance.

2.4.5 Selecting strategies

Literature points out that SWOT analysis and strategic choice are important activities in developing strategic management in small companies (Sorensen, Vidal, & Engstrom, 2004). Similarly, Côté et al. (2005) suggest a strategy process for SMEs and they propose 'selecting the strategy' as a step in the process.

2.4.6 Communication

Managers and entrepreneurs of high performing firms were likely to spend more time communicating with partners, customers, suppliers, and employees than the lead entrepreneurs of low performing SMEs. The use of outside professionals and advisors to facilitate specific problem solving during start-up was important for success as well as the guidance and know-how provided by other industry participants, particularly customers and suppliers. This is accomplished by strong communication channels with different stakeholders (Duchesneau & Gartner, 1990). In addition, Beaver (2002) examines business strategy from the SME development standpoint and implies that a well-defined and well-communicated strategy for the venture is necessary for superior organisational performance.

2.4.7 Reorganisation and organisational change

There are a few authors in SME specific literature who talk about reorganisation and change. For example, Duchesneau and Gartner (1990) highlighted that adapting to varying industry and organisational circumstances via change management is an important strategic activity in SMEs. Also, it is pointed out that self renewal is accomplished by reorganisation, modifying strategy and executing those reformulated strategies via organisational change management activities (Antoncic & Hisrich, 2001) in SMEs.

2.4.8 Strategy reformulation/ revisions/ evaluation/ modifying strategy

Antoncic and Hisrich (2001), Heckmann (1971), Pearce and Robbins (1994) and Rosenstein (1988) suggest that entrepreneurial strategies involve revision and reformulation of a firm's products, services, markets, or principle technologies in ways that stand for a new or thoroughly altered competitive position and self renewal. Likewise, Côté et al. (2005) suggests a strategy process for SMEs and they propose 'evaluating the success of the strategy' as a step in the process. In their view, evaluation represents reviewing strategy after it is developed.

It is suggested in literature that board meetings are common and deal keenly with key issues and with the review of how the strategy is working and what changes in strategy might be required. Reviews of the business plan when a new investment is required or when major new product or marketing decisions are needed are examples of expected occasions for participation of the board in strategy revisions. Also some authors propose strategy tools to be employed when strategy reviews take place, for instance, Dean (1986) suggests using project management as a tool to modify strategic plans.

As mentioned above, literature demonstrates the evidence that there are only a few strategy tools used by SMEs such as SWOT, Balanced Scorecard and financial analysis tools. A study by Stonehouse and Pemberton (2002) similarly discovered that there are only a few illustrations where the recognised tools of strategic management come into sight to play a role in planning, the exemption being internal financial analysis which is widely used in SMEs according to a survey of 159 SMEs.

In conclusion, literature on strategy management process, entrepreneurship and SMEs has devoted significant attention to especially strategic planning, and then environmental scanning, implementation and strategy reformulation processes. The conduct of those processes are typically categorised as being either formal or informal and intuitive (literature findings to research questions are summarised in Figure 2.3). There is a significant convergence of SME literature around strategy with main stream strategy literature that is mainly grounded on larger companies.

Consequently, the researcher will look at the wider strategic management literature in order to find activities and processes as described by scholars as the ingredients to strategy process in order to create a complete rich picture of the strategy process and activities. Concepts and processes more commonly used in corporate

strategy research will be used to overcome the limited view of the manufacturing strategy process in SMEs taken in existing entrepreneurship strategy and SME literature (Figure 2.3). Also, the literature mentions about strategic planning and implementation in SMEs, however how those strategic plans are put into action, what acts like a catalyst to realise plans and how those two link together is an area that should be investigated empirically further. Thus, the researcher identified a research question to fill in this gap and this research question will be addressed through empirical investigation in the following chapters.

Research question: How do strategic initiatives and decisions lead to implementation in manufacturing SMEs?
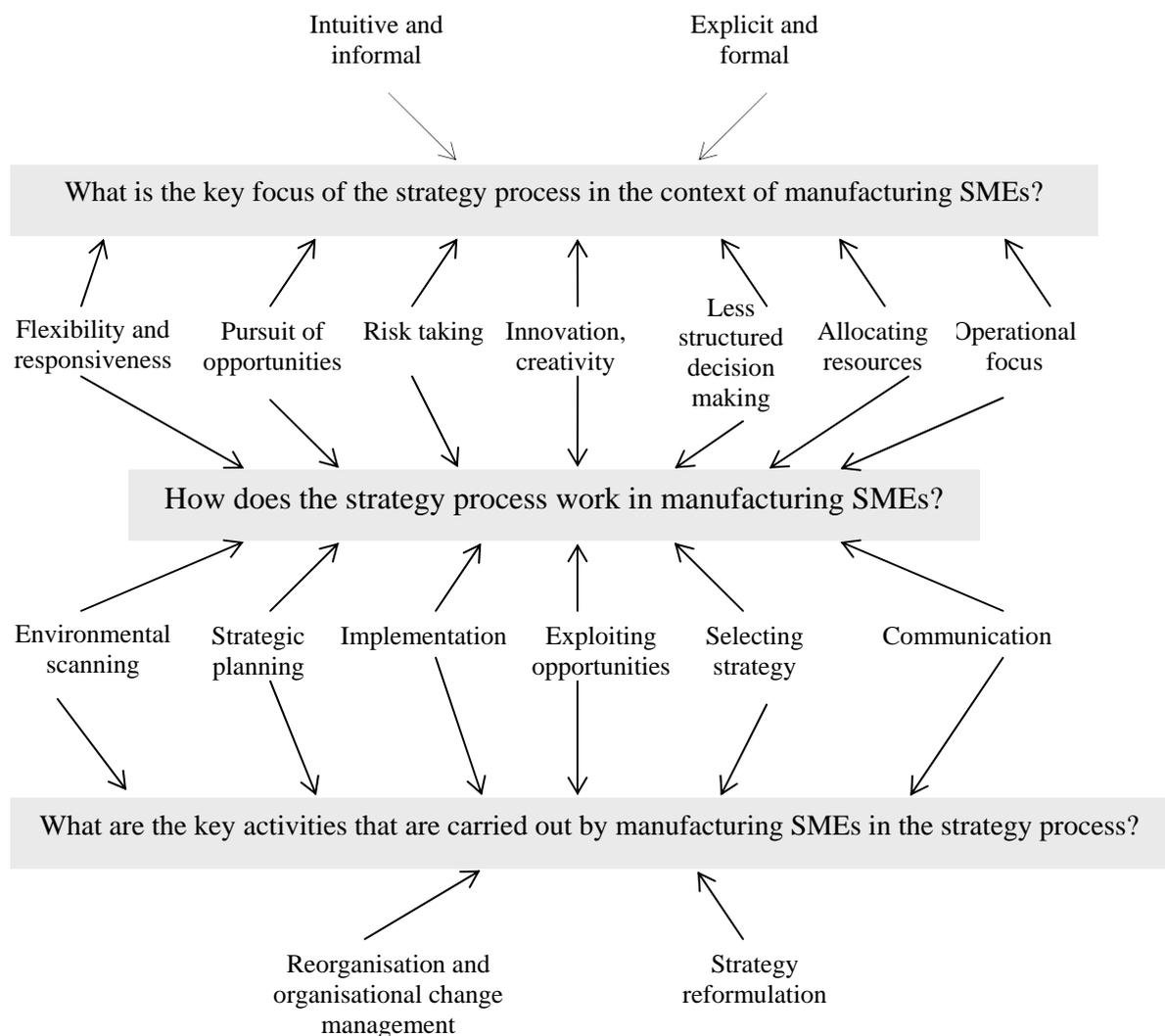
Figure 2.3. Answers to some research questions based on literature on the topic of SME strategy process

The rest of the research questions will be addressed in the empirical enquiry since SME literature did not provide insights to answer those questions.

2.5 The Anatomy of the Strategy Process

Research into strategy making and strategic planning has come a long way since the early work in the 1960s. Several authors have developed strategy making and implementation process typologies from a process view. As we can see from its own definition, strategic management is a process of analysing the current situation, developing suitable strategies, putting those strategies into action, and evaluating, modifying, or changing those strategies as required. The essential activities in strategic management process can be depicted as 'situation analysis, strategy formulation, strategy implementation, and strategy evaluation' (Coulter, 2005, p. 5).

In SME organisations, formal strategy processes are rare, however even though strategies are not explicit, literature points out that both emergent and intended strategies exist in those companies. Mintzberg and Waters (1985, p. 270) describe *entrepreneurial strategy* as the "intentions exist as the personal, unarticulated vision of a single leader, and so are adaptable to new opportunities; the organisation is under the personal control of the leader and located in protected niche in its environment; these strategies are relatively deliberate but can emerge also."

Table 2.3 incorporates strategy process phases and activities from some author's point of view. For example, Wit & Meyer (2003) suggest that strategy process includes the following phases and activities:

- Strategic thinking
- Strategy formation (Mission setting, Agenda setting, External assessment, Internal assessment, Option generation, Option selection, Action taking, Performance control
- Strategic change

Table 2.3 presents some other key authors' strategy process compositions. Although various authors provide different strategy process architectures (Table 2.3), it appears that all those aspects could fit into three broad phases of *formulation, implementation and review & control*. It is very important to note that strategy processes are considered a set of concurrent, cyclical and iterative activities rather than a set of sequential and static set of activities. This conceptual classification is

valid, however it is important to mention that these stages are not distinctive and boundaries between phases are not clear in practice (Ackermann, Eden, & Brown, 2005).

Also some authors interpret some phases within the process differently. For instance, 'Evaluation' can be looked at from two different lenses as seen in Table 2.3. First interpretation is related to working out how the strategies work before events happen and looking at the effects of possible actions towards achieving goals (e.g. Johnson & Scholes, 1999; Schendel & Hofer, 1979). This type of evaluation is considered as part of *formulation* phase. On the other hand, the second type of evaluation seems to be part of *review & control* as in the work of Davenport and Short (1990), Eden and Ackermann (1993) and Pearce and Robinson (1991). This type of evaluation looks at how well strategy is working in practice once strategy is put into action. For instance, Eden and Ackermann (1993: 853) suggests three elements within review process which are "(1) an evaluation of the extent to which the strategy has been implemented and is embedded in the organization, (2) an evaluation of the assumptions underpinning the strategy, and (3) an evaluation of the influence the strategy has on those in an organization who act on the strategy."

The models and frameworks, developed by various authors, pay close attention to formulation, implementation and review & control of strategic activities. If we describe the pattern by grouping activities under the above three broad phases:

- *Strategy formulation* phase conceives of analysing the environment; analysing core competences and capabilities; evaluating opportunities; defining grand strategy and goals and finally defining short-term objectives and action plans.
- *Strategy implementation* phase deals with executing strategy; resource allocation through planning and budgeting and workforce alignment; institutionalising strategy regarding communicating and embedding strategy and managing strategic change.
- *Review and control* phase is concerned with gathering feedback from strategic actions; revising of strategy and appraising, testing and reconciling strategy with plans/needs and modifying goals if required.

Certainly, the above categorisation for strategy process is not prescriptive and is not aimed to be a crude way of showing the process but rather *descriptive aiming to demonstrate the elements in the process*. As it is suggested in Mintzberg and Quinn

(1992, p. 236) "We all need frameworks of categories in which to store the confusing set of experiences that the world throws at us. That is what theory is. Without it, we would simply be overwhelmed and paralyzed". It is worth noting here that this research is not aiming to view strategy as rational and planned only by adopting the above type of three-phase structure. As it is suggested by Whittington et al. (2006, pp. 625) "rather than rejecting formal strategy, our emphasis is on injecting craft directly into the process".

Table 2.3. The anatomy of the strategy process

(Schendel & Hofer, 1979)	(Kotler & Armstrong, 1991)	(Pearce & Robinson, 1991)	(Van de Ven, 1992)	(Ackermann et al., 2005; Eden & Ackermann, 1993)	(Feurer & Chaharbaghi, 1995)	(Camillus, 1996)	(Chakravarthy & White, 2001)	(Dess, Lumpkin, & Taylor, 2005)	(Kaplan & Norton, 2005)	(Johnson & Scholes, 1999; Scholes, 2005)	(Acur & Englyst, 2006)	(Finkelstein, Harvey, & Lawton, 2006)
*Goal formulation *Environmental analysis *Strategy formulation *Strategy evaluation **Strategy implementation ***Strategy control	*Defining the business mission *Performing SWOT analysis *Formulating strategy **Implementing strategy ***Gathering feedback and exercising control	*Strategy Formulation *Develop or ***re-evaluate the company mission *Develop the company profile *Assessing the external environment *Strategy choice *Define the long-term objectives *Design the grand strategy *Define short-term objectives *Design operating strategies **Institutionalization of the strategy **Strategy Implementation ***Strategy Control and Evaluation	*Strategy making process *Scanning *Analysis *Planning	*Analysis *Evaluation **Implementation ***Review process	Based on design school *Define mission *Develop statement of operating principles and values *Define vision *Define goals *Strategic planning foundation *Environmental scanning: analyse markets and identify most attractive segments *Assess long term strengths and weaknesses *Select segments and define strategy *Business strategy *Define capability gaps and formulate strategies that yield competitive advantages in selected segments ***Appraise, test and reconcile strategy with functional plans/needs and modify goals if required **Strategy integration and capability development	*Generating Issues *Prioritizing Issues *Clustering Issues *Generating alternatives *Defining dimensions (client type, revenue source, tech base etc.) *Defining Strategic Profiles *Defining visions/missions *Developing the performance milestones that assess implementation effectiveness **Establishing strategic action programs	*Forming **Implementing ***Changing strategies	*Strategy analysis *Strategy formulation **Strategy implementation	Scorecard management **Organization alignment ***Strategy reviews *Strategic planning **Strategy communication Initiative management **Planning and budgeting **Workforce alignment Best-practice sharing	*Strategic analysis *Analysing the environment *Analysing competences and core competences *Analysing stakeholder expectations and organisational purposes *Strategic choice *Strategy evaluation and selection **Strategy implementation **Organisational structure and design **Resource allocation and ***control **Managing strategic change	*Strategy Formulation *Strategic thinking *Strategic planning **Embedding of strategy	***Revise strategy **Execute strategy Strategy practices: *Active visioning *Devising compelling value proposition *Build the right business model Managing transaction **Bringing strategy to life

* Formulation **Implementation ***Review and Control

Although the strategy management process is much informal, intuitive and less visible in SMEs (Beaver & Prince, 2004), strategy literature around SMEs reconfirms the existence of process and activities as described in Figure 2.4. Usually SMEs do not have explicit written down business models and strategy processes, and the "strategic vision is often in the head of the individual" (Mintzberg & Quinn, 1992, p. 240). However, there is to some extent evidence that SME managers not only deal with operational and tactical tasks but also spend efforts in strategic tasks.

As mentioned in SME focused literature earlier, some authors talk about the link between strategy processes and performance (Baker et al., 1993; Duchesneau & Gartner, 1990; Ghobadian et al., 2003). For instance, Duchesneau and Gartner (1990) indicate that successful SMEs spend more time in strategic planning than unsuccessful firms. Typically, many ventures did not have written business plans, however, they mentioned that they engage with strategic planning, adapting to changing industry and organisational conditions (De Jong & Marsili, 2006), communicating with partners and customers, suppliers and employees. Similarly Baker *et al.* (1993) have drawn attention to the fact that in spite of variety of obstacles, over half of the firms in their study sample conducted strategic planning on a regular basis. Completion of strategic planning and written down business plans is found to be positively associated to firm's profitability.

Furthermore, several authors analysed strategy process phases of formulation, implementation and review and control. For example, strategy formulation (Rosenstein, 1988), deployment and implementation of strategic plans (Tennant & Tanoren, 2005) as well as delegating control activities within SME companies were looked at in several studies focussing on providing empirical evidence from SME companies (i.e. De Jong & Marsili, 2006; Greening, Barringer, & Macy, 1996; O'Regan & Ghobadian, 2007; O'Regan et al., 2005)). Similarly, Aram and Cowen (1990) study strategy processes in SMEs and investigate the blend of formal strategic planning and team development in order to create the notion of *strategy in use* and the development of effective management cooperation out of planning process.

Literature recognises the need to review processes such as strategy reformulation, reorganisation, strategy revisions, modifying strategic plan (Dean, 1986) and operations plan, reviewing business objectives and long term strategy (Heckmann,

1971) as well as organisational change (Antoncic & Hisrich, 2001; Pearce & Robbins, 1994; Rosenstein, 1988). For instance, Côté et al. (2005) argued a systematic process for e-business strategy consisting of four interrelated steps such as analyzing the external and internal environment, selecting the e-business strategy, implementing the e-business strategy and evaluating the success of the e-business strategy.

It can be concluded that the activities in the strategy process (Figure 2.4) are supported by several authors in both main stream and SME specific strategy management literature. Even though the process of strategy in small firms does not reveal exhaustive strategic analysis, but rather, a personality driven, opportunistic or instinctive approach, channelled through an emergent planning process (Burke & Jarratt, 2004), a study by (Hudson-Smith & Smith, 2007) describes strategy processes in SMEs from a critical point/ opportunistic in nature. SMEs due to their adhocratic nature, adopt a critical point/opportunistic strategy development process. In this case, both management and process visibility is likely to be high, due to having fewer employees and generally flat structures within the company.

Analyse external environment
Analyse company core competencies/ capabilities
Evaluate opportunities
Make strategic choice
Define grand strategy and goals
Define short term objectives, targets and action plans

FORMULATE

STRATEGIC THINKING & DOING

REVIEW & CONTROL

IMPLEMENT

Execute strategy
Allocate resources
 ▪Planning and budgeting
 ▪Workforce alignment
Institutionalise strategy
 ▪Communicate
 ▪Embed strategy
Manage strategic change

Gather feedback from strategic actions
Revise strategy
Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required

Figure 2.4. Strategy process framework based on theory

Inevitably, these themes, process phases and activities are not discrete but rather interdependent (Mintzberg & Quinn, 1992) and strategic management itself is an integral business activity (Spillan & Ziemnowicz, 2003). Therefore, the researcher makes clear the overlaps and connections, whilst noting the lack of holistic studies. Finally Table 2.4 gives definitions to the process phases and activities (Figure 2.4) integrating findings from both strategic management and entrepreneurship strategy literatures mainly considering SME context.

Table 2.4. Definitions for strategy process activities

Strategy process	Description	Reference
FORMULATION	Deciding what the organisation might do in terms of environmental opportunity and organisation's ability and power and of bringing these two considerations together in optimal equilibrium. Strategy formulation involves the design and choice of appropriate organisational strategies.	(Aloulou & Fayolle, 2005; Cooper, 1981; Coulter, 2005; Gundry & Kickul, 2007; Hax & Majluf, 1996; Megginson, Byrd, & Megginson, 2006; Mintzberg & Quinn, 1992; O'Regan & Ghobadian, 2002; O'Regan & Ghobadian, 2007; Thomson, Strickland, & Gamble, 2007)
Analyse external environment	Strategic planning processes which look at those aspects of the environment (e.g. technological, economic, physical, social and political in kind) especially susceptible to the kind of change that will affect the company's future. This process engages with external focus and monitoring customers, suppliers, competitors and other environmental actors. SWOT, PESTL, Porter's 5 Forces type of management tools is used.	(Analoui & Karami, 2002; Beal, 2000; Belich & Dubinsky, 1995; Coulter, 2005; De Jong & Marsili, 2006; Hax & Majluf, 1996; Lloyd-Reason & Sear, 2007; Megginson et al., 2006; Mintzberg & Quinn, 1992; Thomson et al., 2007)
Analyse company core competencies/ capabilities	Determining the company's material, technical, financial, and intellectual and managerial resources and abilities	(Coulter, 2005; Mintzberg & Quinn, 1992; Stonehouse & Pemberton, 2002; Thomson et al., 2007)
Evaluate opportunities	Discovering, assessing and exploiting external opportunities and threats and looking at company strengths and weaknesses in order to define long term strategy. Opportunity evaluation aims to reduce the risk of project failure by researching thoroughly all the relevant information on the factors which affect decision making to go ahead with a venture. Conducting SWOT, scenario planning type of analysis.	(Companys & McMullen, 2007; Guimaraes, 2000; Gundry & Kickul, 2007; Lloyd-Reason & Sear, 2007; Prefontaine & Bourgault, 2002; Rae, 2007; Sorensen et al., 2004; Van der Heijden, 2005; Wiklund & Shepherd, 2003)

Make strategic choice	Causation is the relation that connects events. Hence, strategic choice is a negotiated outcome between opportunities and organisation's competences. Managers make choices precisely because they believe these to contribute substantially to the performance and survival of their organisations.	(De Rond & Thietart, 2007; Murray, 1978; Pearce & Robinson, 1991; Thomson et al., 2007)
Define grand strategy and goals	Defining overall strategy and goals pursued by the organisation such as stability, internal growth, external acquisitive growth, diversification, retrenchment etc.	(Berry, 1998; Bracker et al., 1988; Hitt, Ireland, & Palia, 1982; Lyles et al., 1993; Pearce & Robinson, 1991; Rae, 2007; Singh, K. Garg, & Deshmukh, 2006)
Define short-term objectives and action plans	Operationalising strategy thorough identification of competitive priorities based on business strategy and defining improvement objectives, targets and action plans associated with these competitive priorities.	(Acur, Gertsen, Sun, & Frick, 2003; Camillus, 1996; Gundry & Kickul, 2007; Megginson et al., 2006; Rae, 2007; Schendel & Hofer, 1979)
IMPLEMENTATION	Achieving results. Strategy implementation is putting various organisational strategies into action.	(Cooper, 1981; Coulter, 2005; Mintzberg & Quinn, 1992; Nicholas O'Regan & Ghobadian, 2007; Pelham & Lieb, 2004)
Execute strategy	Making the plan happen thorough quantifying the vision, planning results and progress management.	(Banfield et al., 1996; Fields, 2006; Kaplan & Norton, 2000; Thomson et al., 2007; Zagotta & Robinson, 2002)
Allocate resources ▪ Planning and budgeting ▪ Workforce alignment	To marshal resources and initiate actions to pursue opportunities rather than to react to other people's actions	(Green & Jones, 1982; Gundry & Kickul, 2007; Hax & Majluf, 1996; Kaplan & Norton, 2005; Megginson et al., 2006; Neshamba, 2006; Rae, 2007)

Institutionalise strategy ▪ Communicate ▪ Embed strategy	The organisational processes of performance measurement, compensation, management development, communication, all of them tangled in systems of incentives and controls, must be directed toward the kind of behaviour required by organisational goals and strategy. Also, communication involves creating a common language around strategy and for strategizing.	(Beaver, 2002; Drozdow & Carroll, 1997; Megginson et al., 2006; Mintzberg & Quinn, 1992; Paroutis & Pettigrew, 2006; Pearce & Robinson, 1991; Thomson et al., 2007)
Manage strategic change	Adapting to changing industry and organisational conditions. This process might involve reorganisation and various organisational changes.	(Antoncic & Hisrich, 2001; Duchesneau & Gartner, 1990; Kotter & Cohen, 2002)
REVIEW & CONTROL	A process for regularly evaluating the business strategy and delegating control and taking actions. Review process questions whether the objectives of the business, the major policies and plans are appropriate and the results obtained to date confirm or refute critical assumptions on which the strategy rests.	(Beaver, 2002; Coulter, 2005; Greening et al., 1996; Megginson et al., 2006; Rumelt, 1974)
Gather feedback from strategic actions	Formal process for collecting, assimilating, and converting competitive information into knowledge and intelligence that is useful for strategy formulation and implementation.	(Groom & David, 2001; Kotler & Armstrong, 1991)
Revise strategy	Revisiting the strategic planning, business objectives, long term strategy and implementation phases to identify other objectives to prioritize for improvement. This need might be resulted in changing environmental influences.	(Heckmann, 1971; Hudson-Smith & Smith, 2007)
Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required	Organising major units around the primary strategic tasks and making the extra effort required to incorporate measures of strategic success in the control system. This evaluation process is an attempt to look beyond the obvious facts regarding short term health of a business and appraise instead those more fundamental factors and trends that govern success in the chosen field of endeavour. This might result in reformulation of strategy.	(Feurer & Chaharbaghi, 1995; Pearce & Robbins, 1994; Rumelt, 1974)

2.6 Summary of Chapter 2: The purpose revisited

After the extensive discussion of theory relating to strategy process in an SME context, it is time to revisit the research purpose and to see how it can be practically fulfilled. The purpose as stated in the first chapter ran as follows:

The purpose of this thesis is to understand strategy processes by examining the manufacturing SME context. This includes showing the usefulness of a processual approach as well as shedding light on how the strategy process works in manufacturing SMEs.

Although the distinction between management of *operational effectiveness* and strategic management has been a core belief of much management literature, the application of the strategic management process to SMEs can be seen as posing particular challenges because strategic management is concerned with the future success of the business and may entail *major* changes in the benefits to be offered to customers, in organisation capacity and in competitive position. This can be inferred from the organisational studies of Mintzberg and Quinn (1992), who argued that the typical owner-manager of small firms manages in a different way from the methods indicated by the strategic planning literature. It is said that such businesses are governed using more personal and arbitrary forms of control. It is argued, however, that there is a need to understand whether and how managers in SMEs have taken up the language and practice of planning and strategic analysis (Woods & Joyce, 2003). Also, there is a need to develop more refined and applicable models tailored to the SME development and growth that are grounded in company practices (Ritchie & Lam, 2005). Hence, the following chapters will deal with empirical investigation and design of research in order to understand the practice of strategy management in SMEs.

Now, the research purpose is rather general. In order to have some guidance data gathering and the initial interpretation of data, it is necessary to specify more precisely what to look for in my field work. Building on the previous theoretical discussion in this chapter, I thus want to summarise the following research questions,

deduced from literature review, for data interpretation that will be addressed in the following chapters through empirical inquiry.

- *What are the key activities that are carried out by manufacturing SMEs in the strategy process?* Activities within the strategy process are pointed out to be important elements in order to understand company practices concerning strategy (Johnson, Melin, & Whittington, 2003; Whittington et al., 2006; Pettigrew, 1992). This research question aims to clarify major activities within the strategy process in the investigated SMEs.

- *What is the key focus of the strategy process in the context of manufacturing SMEs?* Strategic activities relate to achieving business outcomes such as flexibility and responsiveness. Processual theory (Whittington et al., 2006; Ackermann, Eden & Brown, 2005) suggests that there is a process of what is emerging (outcome of strategy). Thus, the goal of this research question is to provide some implications for SME strategy scholarship and SME managers by clarifying the key focus of strategy process in the context of manufacturing SMEs.

- *What strategy tools, techniques and methods are being employed in manufacturing SMEs?* This research question aims to add to the discussion about the strategy tools, techniques and method most commonly used when decision making and execution in manufacturing SMEs (Frost, 2003; Drozdow & Carroll, 1997; Whittington, 2006).

- *How do strategic initiatives and decisions lead to implementation in manufacturing SMEs?* This research question aims to shed light on the linkages between strategic initiatives/ decisions and implementation of those. The potential catalysts enabling decisions to put into action will be investigated.

The research questions defined above will provide guidance for data gathering as well as interpretation of data in the empirical chapters of this thesis. I will do that in the next chapters.

3. MANAGEMENT RESEARCH OVERVIEW: Focusing on Case Study Method

The aim of this chapter is to develop an appreciation of the wide range of methodological choices available to management researchers, including an overview of their approaches to data collection, principles of data analysis and theory building. This chapter will expand on basic skills on issues and debates common to many of the approaches and will conclude with demonstrating the ability to explain a chosen research approach.

Research methodology has a crucial role in any kind of management research if the research aims to demonstrate credibility. A lack of consideration of the philosophical nature of the research might seriously affect the quality of the outcome of the research. The way the researchers understand and interpret the reality of the world will influence the research process followed while carrying out research and in consequence the results and findings. Hence, the philosophical assumptions will help the researcher to choose the right research strategies and techniques. These are some benefits of understanding various research approaches highlighted by Easterby-Smith, Thorpe, & Lowe (2004):

- Design process of the research is clearer.

- Understanding the characteristics of the different philosophical paradigms may help the researcher to foresee which research design may work and which may not.

- It may help the researcher to identify and create research designs that might be unknown for him/her.

- Helps the researcher to develop a *research identity*

3.1 Introduction: Scoping the Field in Research Paradigms

"…and those who were seen dancing were thought to be insane by those who could not hear the music" Friedrich Nietzsche.

Nietzsche's quote is very timely to mention here as it lays the grounds for a debate on research philosophies and researcher's positions around those debates. What is in the world and how we know what is in the world are broad questions to

elaborate in research philosophies debate. Consequently management researchers are schooled in different paradigms due to their choices to look at the social world from various lenses. The following section refers an in-depth literature review on research philosophies and approaches in management research.

3.2 Debate around Research Philosophies

Management and business research deals with social world issues and generally those issues involve human interaction and therefore are messy. In management research there are different approaches to conducting research. Meredith, Raturi, Amoako-Gyampah, and Kaplan (1989) highlight two dimensions as key criteria for philosophical modelling of the management research. The first is rational/existential dimension, which defines whether there is just one reality and independent to the researcher, or this reality is subjective and socially constructed. These different approaches can be explained through four dimensions i.e. ontology, epistemology, methodology and methods/ techniques.

The next sections will aim to clarify the debate on the status and nature of social science and management research via introducing alternative positions and epistemologies and exploring implications for choices in research design.

3.2.1 Ontology

Ontology is related to the nature of truth in world. This can be subjective or objective and thus explained as "assumptions that we make the nature of reality" (Easterby-Smith et al., 2004, p. 31). Science and social science debates around ontology have been different from each other. Social science does not follow a traditional approach and therefore is richer in philosophical debates. Main ontologies are (Easterby-Smith et al., 2004; Scholarios, 2005; Meredith et al.,1989):

- Objective ontology (physical sciences approach; deals with facts, causality, fundamental laws, reductionism, measurement and objective reality; the truth holds regardless of who the observer is; aim is to discover what is there)

- Subjective ontology (constructed; the nature of what is there is not solid but shifting; truth depends on who establishes it and facts are all human creations; aim is to understand people's interpretations and perceptions)
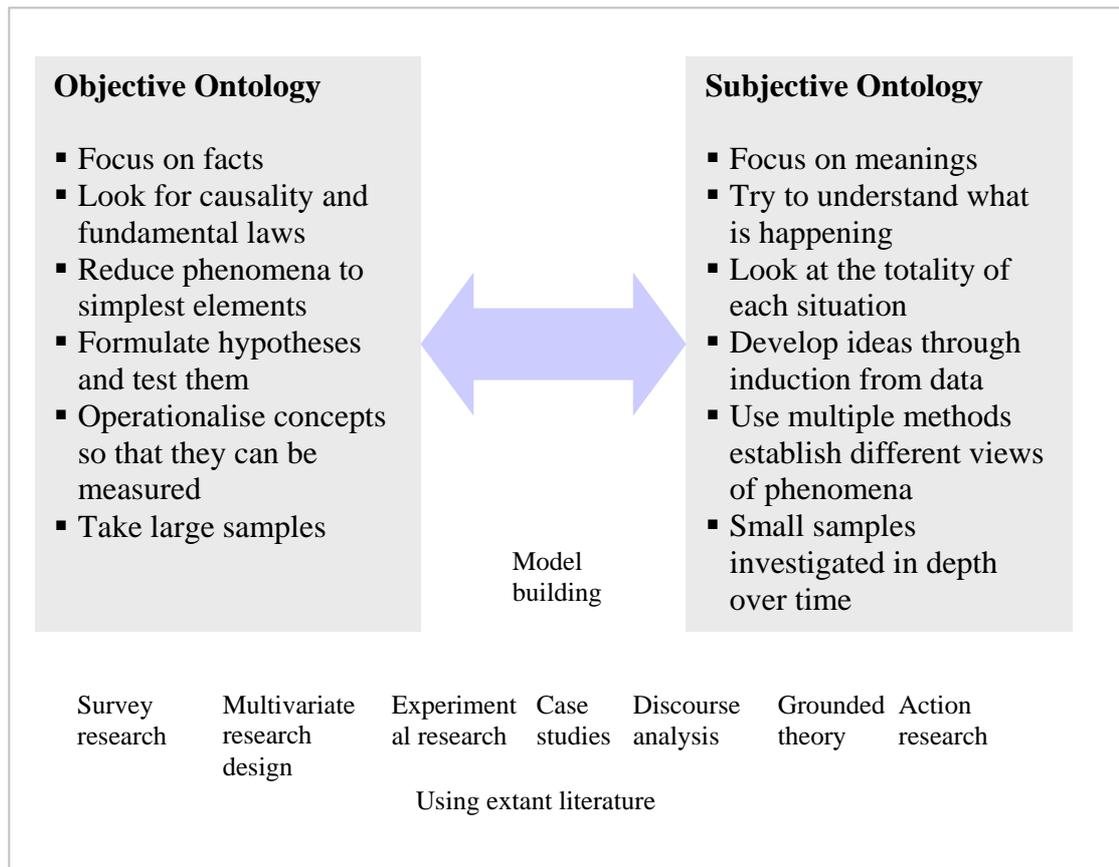
Figure 3.1. Choice of research methods related to ontology (Beech, 2005)

3.2.2 Epistemology

Epistemology is related to the way we see the nature of reality in world. We look at social world issues from different lenses we gained through our background, education, personal and professional experiences. Hence, it is a "general set of assumptions about the best ways of inquiring into the nature of the world" (Easterby-Smith et al., 2004, p. 31). Four key epistemologies/ paradigms in social sciences are:

1. Positivism
2. Critical realism / Relativism
3. Interpretivism / Social Constructionism / Phenomenological Approach
4. Action Research

There are different philosophical debates amongst business and management researchers. The following sections endeavour to describe distinctive characteristics of each paradigm. It is worth to note that epistemology and paradigm are used as

interchangeable terms in this research. Paradigm represents a theoretical framework, within which research is conducted (Beech, 2005).

3.2.2.1 Positivist paradigm

Firstly positivist research examples are the work of Pugh and his colleagues at Aston University, UK into organisational structure in 1961 and the work of Hofstede in 1984 and 1991 about the impact of national cultures on social and work behaviour in IBM (Easterby-Smith et al., 2004). These examples used highly structured interviews or questionnaires over a large sample. However even in these examples researchers were dealing with not only hard and objective data but also mental constructs, readings and discussions with academic peers, for instance the labels attached to the classifications were the researchers' own words. Thus, in practice it is difficult to follow a pure version of objectivist paradigm while conducting social science research.

To sum up, positivist epistemology has the following characteristics (Easterby-Smith et al., 2004; Scholarios, 2005):

- Independence – the observer is independent of what is being observed
- Value-free and scientific – the choice of subject and method can be made objectively, not based on beliefs or interests
- Hypothetico-deductive – hypothesise a law and deduct what kinds of observations will demonstrate its truth or falsity
- Large samples
- Empirical operationalisation – typically quantitative
- Principles of probability
- Reductionism – break problems down into their smallest elements
- Generalisation – sufficient samples should be selected in order to generalise to a population

3.2.2.2 Interpretivist paradigm

Interpretivist approach generally takes an 'open minded' approach and starts from data rather than a literature based theory or hypotheses to be tested out. Interpretivist researchers look at organisations in depth and generally appoint to extensive conversations, observations and secondary data analysis such as company

documents and reports in order to overcome generalisability critiques (Easterby-Smith et al., 2004, p. 40).

However, interpretivist researchers engage with a deeper understanding of meanings in data analysis rather than aiming to generalise things. Interpretivist paradigm intends to deal with different contexts through sense making rather than objective real world out there. Also, interpretivist researchers generally employ methods such as ethnography, phenomenology, hermeneutics and discourse analysis in order to generate qualitative data. Data analysis involves observations, interviewing and analysis of trnscripts (Beech, 2005).

3.2.2.3 Critical realist paradigm

The philosophical debate around pure positivism and pure interpretivism is very distinctive, however, in practice to follow those pure paradigms are not always possible in social scientific research. Although management researchers are more passionate at the beginning into pursuing a particular philosophy, when they are conducting the field work they might be using different research designs at their convenience.

Critical realist paradigm can be "seen as useful compromise which can combine the strengths and avoid the limitations of positivist and interpretivist paradigms" although it has its own strengths and weaknesses too. The major strong points are it recognises the value of using multiple sources of data and perspectives (Easterby-Smith et al., 2004, p. 42).

Table 3.1 summarises the main distinctions seen in positivist, interpretivist and critical realist paradigms regarding the interpretation of the nature of truth and their general approach to conducting management research. There seems to be a stronger polarisation between pure positivist and pure interpretivist epistemologies whereas critical realist epistemology appears to be taking a middle view.

3.2.2.4 Action research

The fourth paradigm is action research. Action research is considered to be a paradigm rather than a method because of its distinctive position among philosophical debates regarding its subjectivity and high involvement of the researcher to the research setting. Action research refers to be a collaborative

approach between the researcher and the organisation or unit. The main idea is making an impact and change happen by involving in the process so the situation can be researched effectively. This type of research is common in practical problems and 'Organisational Development' field where the researcher involves in the process actively. According to Easterby-Smith et al. (2004, p. 43-44) action research approach shows the following two attributes:

- "a belief that the best way of learning about an organisation or social system is through attempting to change it, and this therefore should to some extent be the objective of the action researcher"
- "the belief that those people most likely to be affected by, or involved in implementing, these changes should as far as possible become involved in the research process itself"

The aims of action research according to Huxham, (2003) and Huxham and Vangen (2003) are to create tools and methods, to build up theory that relates to the implementation of policy, and to develop practice-oriented theory related to management processes. However, the researcher's involvement and high levels of subjectivity bring along critiques to action research. Credibility and robustness are debatable in action research according to different authors influenced by interpretivist or positivist paradigms (Huxham, 2003; Tranfield & Starkey, 1998).

3.2.3 Methodology

Methodology is a "combination of techniques used to enquire into a specific situation" (Easterby-Smith et al., 2004, p. 31). There are a number of alternatives such as hypothetico-deductive, inductive and co-operative inquiry. Hypothetico-deductive methodology is applied within positivist paradigm generally and inductive methodology often starts with data rather than literature and finally co-operative inquiry is seen in action research in which there are high levels of involvement of the researcher.

Table 3.1. Ontologies and epistemologies in social science research
Adopted from (Denzin & Lincoln, 2000; Easterby-Smith et al., 2004)

Elements	Positivism	Critical realism	Interpretivism
Truth	Is determined through verification of predictions	Requires consensus between different viewpoints	Depends on who establishes it
Facts	Concrete	Concrete but cannot be accessed directly	All human creations
Aims	Discovery	Exposure	Invention
Starting points	Formulation of explicit hypotheses which guide research	Suppositions/ Research Questions	Meanings/ Research questions
Research position (goal investigation)	Prescriptive, causal, deductive, theory confirming, ungrounded	Exploratory, descriptive, theory building, inductive, analytical	descriptive
Direction of research inquiry	Measurement and analysis of causal relationships between variables that are generalisable across tome and context	Development of idiographic knowledge based social experiences such as human ideas, beliefs, perceptions, values etc.	Development of idiographic knowledge based social experiences such as human ideas, beliefs, perceptions, values etc.
Designs	Experiment, survey	Triangulation, case study, convergent interviewing	Reflexivity, interviews, participant observation
Methodology	Outcome oriented, verification oriented	Process oriented, discovery oriented	Observation, process oriented
Techniques	Measurement	Survey	Conversation
Sample size	Large	Small	Very small
Data collection	Structured	Semi-structured, unstructured	Unstructured
Hardware, software	Questionnaires, statistical software programs	Tape recorders, interview guides, transcripts, qualitative software programs, visual methods	Tape recorders, interview guides, transcripts, qualitative software programs, visual methods
Type of data gathered	Replicable, discrete elements, statistical	Information-rich, contextual, non-statistical	Information-rich, contextual, non-statistical, somewhat subjective reality
Interview questions	Mainly closed with limited probing	Open with probing	Very open
Interaction of interviewer and phenomenon	Independent and value-free, a one way mirror	Mutually interactive but controlled by triangulating data, an open window	Passionate participant, transformative intellectual
Respondent's perspective	Emphasis on outsider's perspective and being distanced from data	Emphasis on the insider's perspective	Emphasis on outsider's perspective and being distanced from data
Information per respondent	Varies (specific to question)	extensive (broader question)	extensive
Analysis/ Interpretation	Verification/ falsification	Probability	Sense-making
Type of data analysis	Objective, value-free, statistical methods	Non-statistical, triangulation	Value-loaded, non-statistical
Causality	Cause-effect relations	Causal tendencies, generative mechanisms	Not addressed
Outcomes	Causality	Correlation	Understanding
Judgement of research quality	External validity and reliability are critical	Construct validity is important	Credibility, transferability, dependability, and confirmability

3.2.4 Methods and techniques

Methods are "individual techniques for data collection, analysis, etc." (Easterby-Smith et al., 2004, p. 31). When researchers decide to pursue a specific epistemology, they often adopt methods which are commonly used within that epistemology. Techniques and methods are about what practices of research should be undertaken and the approach the researcher takes will impact on what he or she can see and find. Some research methods and techniques are statistical testing, experimental, secondary data analysis, case study, observation, interviews and participation.

3.3 Summary of Research Design

To summarise, it is possible to draw a map of ways of scoping the research through choosing a paradigm, epistemology, methodology and related methods and techniques as shown in Figure 3.2.These fundamental concepts in any management research design are critical to ensure credibility in an academic study.

Ontology
What is the nature of reality?

Epistemology
What is the nature of knowledge?

Methodology
What is the nature of the approach to research?

Methods/ techniques
What practices of research should be undertaken?

Outcomes1: what counts as data/ research evidence?

Outcomes2: what counts as contribution?
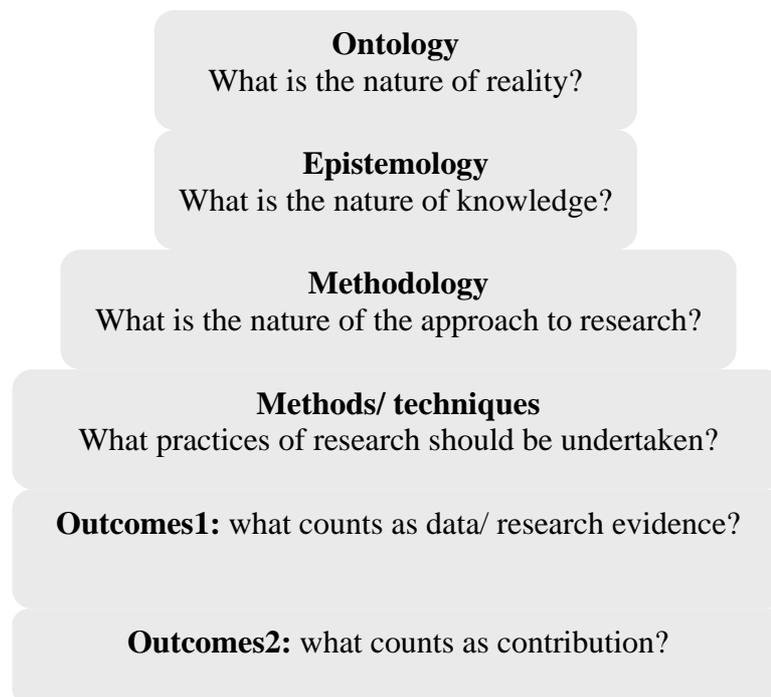
Figure 3.2. Research methodology design building blocks (Beech, 2005).

3.4 A Review of Research Methodologies and Methods

The roots of different research methods and techniques have gained popularity in different periods. Firstly, in the period of 1900-World War II, researchers were concerned with offering valid, reliable, and objective interpretations through field experiences which were reflective of positivist paradigm. Then, in post war years to the 1970s the modernist phases commenced and social realism, naturalism and ethnographies are still valued as well as the discovery of Grounded theory by Glaser and Strauss (1967). In 1970-1986, qualitative researchers had a full complement of paradigms, methods, and strategies to employ in their research through naturalistic, post positivist and constructionist paradigms which gained powers in this period. In mid-1980s to mid-1990s, crisis of representation came out and research and writing made more reflective, calling into question issues of gender, class and race while issues such as validity, reliability and objectivity were problematic. New forms of writing research emerged such as memoir with the researcher as the central character. Moreover, Mid 1990s to present day, the concept of the aloof observer has been abandoned and the research for grand narratives is replaced with by more local, small-scale theories fitted to specific problems and particular situations (Dinnie, 2005). As suggested by Quinn (2002, pp.96) "Today's world calls for less hypothesis testing and more systematic observation".

In practice researchers generally follow a particular path when choosing which methods to adopt in line with their chosen paradigm. As shown in Figure 3.3 the acceptance of a particular epistemology usually leads the researcher to adopt methods that are characteristic of that position. Figure 3.3 maps the appropriate methods possible to use within a paradigm. The choice of ontology and epistemology usually reflects the choice of methods used within a research. Thus we can also divide different epistemologies regarding ontological propositions 'objective versus subjective' and the level of participation of the researcher to the research process 'involved versus independent'. Figure 3.3 shows these distinctions.
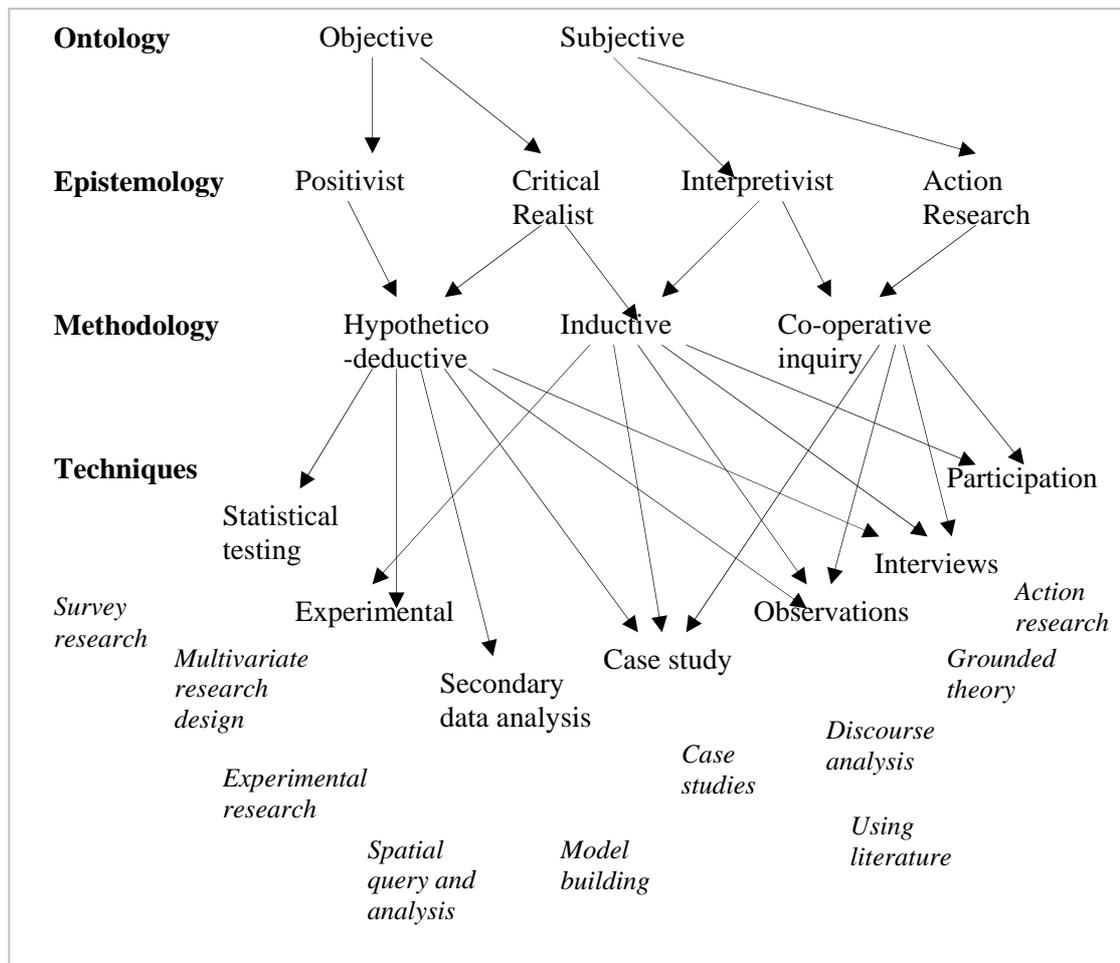
Figure 3.3. Research design map (Beech, 2005).

The following section will give brief explanations to the available methods and techniques for management researchers. However, the purpose is not giving a detailed discussion around all these methods available but rather focusing on *case study method* particularly because I initially believe that case study method would be more advantageous considering the exploratory nature of my research questions. Also, case study research is gaining popularity in management research recently because it creates small scale and context specific implications and conclusions rather than universal findings. This approach suits more to today's research setting (Eisenhardt, 1989).

3.4.1 Survey research

Survey method can be defined as a way to collect information from one or more people on an organisationally relevant construct. It is important to note that surveys are not only questionnaires but also involve a range of methods such as

questionnaires, interviews and focus groups. Surveys are commonly used methods in *positivist* paradigm in order to achieve systematic observation, interviewing and questioning thorough predetermined research questions with the intention of providing standardisation and consistency (Fink, 2005; Moser & Kalton, 1971; Scholarios, 2005).

Surveys are also appropriate methods when researcher has a high control over situation and high participation in situation through pre-determined questions. Survey method is appropriate to use while answering "what" type of research questions (Yin, 2003b). Surveys can be:

- Descriptive surveys – gives only insights to current status of situation, historical, evaluation, however tells little for deeper understanding so should be triangulated with other methods in order to build an argument.

- Analytical surveys – articulates relationships and looks at *correlation* to determine if a relationship exists between two variables in an exploratory way; *causal comparative* to establish cause-effect relationships through group comparisons and *experimental* which involves manipulating one or more variables for increased control.

According to Fink (2005) and Scholarios (2005) survey research activities comprise of:

- Defining purpose and scope of survey according to research questions/ hypotheses (descriptive/ analytical; cross-sectional/ longitudinal)
- Constructing survey instrument which operationalises key constructs
- Designing a sampling strategy (e.g. defining population, deciding census or sample, defining sample frame)
- Survey administration and data collection (e.g. printing, distribution, getting access, persuasion, tracking response rates etc.)
- Data analysis (includes data linking, non-responses bias, hypotheses, testing)
- Interpretation and presentation of findings to stakeholders (thesis examiner, management, employees)

3.4.2 Multivariate research design

According to Walsh (2005) these are the tasks within multivariate research design which is commonly used in positivist paradigm:

- Choosing appropriate sampling method (Sudman, 1976)
- Choosing appropriate measurement instrument
- Choosing appropriate data analysis technique

This type of research can choose among the following sampling techniques: random sampling, systematic sampling, stratified sampling, convenience sampling, judgment sampling, quota sampling and snowball sampling. Measurement instruments can be chosen from self-administered questionnaires vs. interview; existing scales vs. one's own scales; single vs. multi-item scales; short vs. long questionnaire and interview guide vs. standard questionnaires.

Multivariate research involves multivariate data analysis such as correlation analysis, regression analysis, cluster analysis, analysis of variance, and factor analysis (exploratory and confirmatory). Firstly, correlation analysis deals with measuring how well the predicted values from a forecast model fit with the real-life data. If there is a perfect linear relationship between the two variables; we have a correlation coefficient of 1; if there is positive correlation. If there is a perfect linear relationship with negative slope between the two variables, we have a correlation coefficient of -1. Regression analysis is a method for studying the relationship between a dependant variable and two or more independent variables in order to provide prediction, explanation and theory building.

Factor analysis aims to model correlation patterns in a useful way so as to suggest new, uncorrelated variables that explain the original correlation structure as well as allowing for contextual interpretation of the new variables.

3.4.3 Experimental research

Acquiring knowledge can be achieved through observation of nature, reflection and experimentation. Observation collects facts, reflection combines them and experimentation verifies the results of that combination. The types of experiments are (Beech, 2005):

- True/ classical experiment – subjects are assigned at random to experimental or control groups. Conditions for the experimental group (the independent variable) are manipulated by the researcher. The effects of the manipulation are measured (dependant variable)
- Quasi experiment – when it is not possible to randomise allocation to experimental and control groups.
- Passive experiment
    - Natural experiment – the experimental condition arises naturally rather than resulting from direct manipulation by the researcher.
    - Retrospective experiment – observes an existing condition and looks back in time for explanations.

3.4.4 Model building

Model building is a representation of reality. There are a number of modelling techniques such as cognitive maps (Eden & Ackermann, 1998), influence diagrams, Bayesian belief nets and event trees. Thinking in models is a decisive strategy of communication and explanation in the field of art and science. Conceptual models generally are developed in relation to research questions and research objectives and show the relevant variables and how those variables relate to each other. Conceptual framework development tasks are:
- Using graphical representations
- Revising and refining the framework
- Presenting all relevant relationships
- Thinking and theorising

It is very important to make sure the methodology relates to the chosen theoretical framework and conceptual model (Walsh, 2005).

3.4.5 Grounded theory

Grounded theory was discovered by Glaser & Strauss (1967) during the golden age of rigorous qualitative analysis. The roots of grounded theory go to the belief that theory should be discovered from data which is called 'grounded theory' (Cresswell, 1998; Dinnie, 2005). Glaser (1992) defines grounded theory as an ability to create concepts from data and to relate them according to the normal models of theory in

general. The researcher's knowledge, understanding and skills foster his or her generation of categories and properties into theory building. Cresswell (1998) identifies key characteristics of grounded theory as follows:

- the aim is to discover or generate a theory
- the researcher has to set aside theoretical ideas to allow a substantive theory to emerge
- theory focuses on how individuals interact in relation to the phenomenon under study
- theory is derived from data acquired through fieldwork interviews, observations, and documents
- data analysis is systematic and begins as soon as data is available
- data analysis proceeds through identifying categories and connecting them
- further data collection or sampling is based on emerging concepts
- these concepts are developed through constant comparison with additional data
- data collection can stop when no new conceptualisations emerge
- data analysis proceeds from identifying categories, properties and dimensions (open coding) through examining conditions, strategies and consequences (axial coding) to selective coding around an emerging storyline
- the resulting theory can be reported in a narrative framework or as a set of propositions

Grounded theory in management research is useful in capturing the complexities of the context in which action unfolds, enabling researchers to better understand specific substantive issues. Grounded theory is well suited to the study of complex entities through its ability to produce a versatile account of organisational action in its context (Dinnie, 2005).

In addition, ethnography, participant observation, discourse analyses are commonly used methods together with grounded theory. Discourse analysis focuses on language, talk, speech acts and emotions. Narrative analysis generally refers to stories which are often used as explanations. They may reveal more about the story-

telling than the apparent subject therefore might contain structures of thought and can have implications for roles, actions and expectations (Beech, 2005).

3.4.6 Case study method

Case study method allows researchers to keep the holistic and significant characteristics of real-life events. Case studies are applied to topics such as "decisions, individuals, organisations, processes, programs, institutions and events" (Yin, 2003b, p. 12). Case studies are empirical investigations which address the following:

- To investigate a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident
- To cope with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
- Relies on multiple sources of evidence, with data needing to converge in a triangulating fashion
- Benefits from the prior development of theoretical propositions to guide data collection and analysis (Yin, 2003b, p. 13-14).

3.4.6.1 When to employ case study research

Generally, case studies are the preferred method when *how* and *why* research questions are being investigated, when the researcher has slight control over events, and when the focus is on a contemporary phenomenon surrounded by some real-life context.

Case studies are similar to story telling about a firm. For instance, Leonard-Barton (1990) described a case study as "a history of a past and current phenomenon, drawn from multiple sources of evidence. It can include data from direct observations and systematic interviewing as well as from public and private archives. In fact, any fact relevant to the stream of events describing the phenomenon is a potential datum in a case study, since context is important" (Voss, Tsikriktsis, & Frohlich, 2002, p. 197).

3.4.6.2 Case study research types

Case studies can be applied for diverse research intentions. The types of case studies are (Voss et al., 2002; Yin, 2003a; Yin, 2003b):

3.4.6.2.1 Explanatory/ causal case studies

In explanatory case studies, the researcher tries to "determine whether event x led to event y. Thus, the researcher investigates causality between variables however it is very important not to miss any other variable that might cause y". *How* and *why* questions are related with explanatory research - e.g. Allison & Zelikow (1999) because these types of questions cope with operational relationships calling for to be traced over time, rather than only frequencies (Yin, 2003b, p. 36).

3.4.6.2.2 Descriptive case studies

Histories and surveys are deemed to be appropriate in descriptive studies however case studies are also used in this type of research such as Whyte's Street Corner Society (1943, 1955) in (Yin, 2003a) where William Whyte outlines the sequence of interpersonal events over time, portrays a subculture that had not often been the topic of prior study and realises the key phenomena such as the career progressions of lower income youths and their ability to break neighbourhood ties by using a descriptive case study method.

3.4.6.2.3 Exploratory case studies

It is commonly accepted in management research that case study method is suitable for exploratory phase of a research. The goal might be to develop pertinent hypotheses and propositions for further inquiry. Exploration is needed to develop research ideas and questions.

As Frohlich (1998) has drawn attention to the fact that many doctoral theses begin with one or more case studies in order to produce a list of research questions that are merit pursuing more (Voss et al., 2002).

3.4.6.2.4 Theory building

A theory comprises of four components as suggested by Wacker (1998) in Voss et al. (2002, p. 197): "definitions of terms or variables, a domain regarding the exact setting in which the theory can be applied, a set of relationships and specific predictions". The main advantage of case study research in theory building is its strength in clarifying meanings and removing uncertainty in the explanation of constructs as pointed out by Mukherjee et al. (2000) in Voss et al. (2002). As it is suggested by Christensen & Sundahl (2001), Eisenhardt (1989) and Whetten (1989) in theory building, the researchers go thorough observations and classifications cycle in order to not only proof seeking but also searching for anomaly between empirical work and existing theory. Figure 3.4 shows this cycle in the process of theory building.
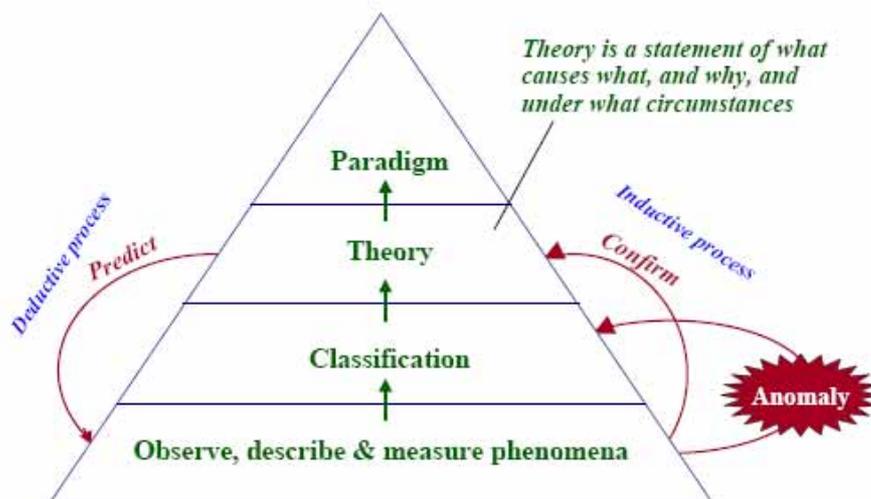
Figure 3.4. The process of theory building (Christensen & Sundahl, 2001)

A theory is a statement of what causes what, and why. If the theory is built upon a sound classification scheme, it can explain what, and why, and under what circumstances. A theory is a contingent explanation of causality, it helps researchers and practitioners who observe phenomena under various circumstances understand why things turn out the way they do. The term *framework* maps closely to the term of

building robust categorisation (e.g. Porter's five forces is an attempt to define categories of phenomena).

The word *model* is synonymous with theory as it is defined here. Armed with a theory that is built upon a classification scheme, researchers can then use the theory to predict what they will observe when they go out and observe more phenomena under various conditions. If the theory accurately predicts what is observed then, the theory is useful under the circumstances in which the data or phenomena were observed. As Figure 3.4 suggests, the theory is then returned to the stage where the researcher began, confirmed but *unimproved*. Moreover, external validity is established through classification and thus, the relevant classification should not be too broad where the key variations are lost (Christensen & Sundahl, 2001).

3.4.6.2.5 Theory testing

Case studies are used generally together with survey research for triangulation purposes in theory testing research. In spite of the limited use of case studies in theory testing, there are examples of its application area such as strategy implementation (Voss et al., 2002).

3.4.6.2.6 Theory extension/refinement

Case studies offer robust methods in studying dynamic fields in which emerging practices take place continually. Thus, case studies are useful when looking at new application areas or extending the field more deeply or validating (if possible) previous empirical results (Voss et al., 2002). Voss et al. (2002, p. 198) has built upon earlier work of Handfield and Melnyk (1998) and developed the following Table 3.2 which shows some distinctions that researchers should consider when matching research purpose with case study methodology types.

Table 3.2. Matching research purpose with case study types
Adopted from (Voss et al., 2002, p. 198)

Purpose	Research question	Research structure
Exploration Uncovering areas for research and theory development	Is there something interesting enough to justify research?	In-depth case studies Unfocused, longitudinal field study
Theory building Identifying or describing key variables Identifying linkages between variables Identifying 'why' these relationships exist	What are the key variables? What are the patterns or linkages between variables? Why should these relationships exist?	Few focused case studies In-depth field studies Multi-site case studies Best-in-class case studies
Theory testing Testing the theories developed in the previous stages Predicting future outcomes	Are the theories we have generated able to survive the test of empirical data? Did we get the behaviour that was predicted by the theory or did we observe another unanticipated behaviour?	Experiment Quasi-experiment Multiple case studies Large-scale sample of population
Theory extension/ refinement To better understand the theories in light of the observed results	How generalisable is the theory? Where does the theory apply?	Experiment Quasi-experiment Case studies Large-scale sample of population

3.4.6.3 Core tasks while conducting case study research

Yin (2003b, p. xv, 2) suggests that "empirical research advances only when it is accompanied by theory and logical inquiry and not when treated as a mechanistic or data collection endeavour. This turns out to be a basic theme of the case study method". The process of inducting theory using case studies includes specifying questions to reaching closure. Thus, the main seven tasks in a rigorous case study design are (Eisenhardt, 1989; Voss et al., 2002; Yin, 2003a; Yin 2003b):

1. Designing good case studies
2. Developing the research framework, constructs and questions
3. Choosing cases
4. Developing research instruments and protocols
5. Collecting, documenting, presenting, coding data
6. Analysing data fairly
7. Writing a compelling report to bring the cases study to closure

Moreover, Eisenhardt (1989, p. 533) expands on the above seven main tasks and proposes a framework for the process of theory building from case study research as shown in Table 3.3. She suggests a process that starts with definition of research questions to arrive at a closure in the research. Each step in theory building also contributes to research quality by strengthening the constructs, evidence, theory and internal/ external validity.

Table 3.3. Process of building theory from case studies (Eisenhardt, 1989, p. 533)

Step	Activity	Reason
Getting started	Definition of research question	Focuses efforts
	Possibly a prior construct	Provides better grounding of construct measures
Selecting cases	Neither theory nor hypotheses	Retains theoretical flexibility
	Specific population	Constraints irrelevant variation and sharpens external validity
	Theoretical not random sampling	Focuses efforts on theoretically useful cases – i.e. those that replicate or extend theory by filling conceptual categories
Crafting instruments and protocols	Multiple data collection methods	Strengthens grounding of theory by triangulation of evidence
	Qualitative and quantitative data combined	Synergistic view of evidence
	Multiple investigators	Fosters divergent perspectives and strengthens grounding
Entering the field	Overlap data collection and analysis including field notes	Speeds analyses and reveals helpful adjustments to data collection
	Flexible and opportunistic data collection methods	Allows researchers to take advantage of emergent themes and unique case features
Analysing data	Within case analysis	Gains familiarity with data and preliminary theory generation
	Cross case pattern searching using divergent techniques	Forces researchers to look beyond initial impressions and see evidence through multiple lenses
Shaping hypotheses	Iterative tabulation of evidence for each construct	Sharpens construct definition, validity and measurability
	Replication, not sampling, logic across cases	Confirms, extends and sharpens theory
	Search evidence for 'why' behind relationships	Builds internal validity
Enfolding literature	Comparison with conflicting literature	Builds internal validity, raises theoretical debate and sharpens construct definitions
	Comparison with similar literature	Sharpens generalisability and raises theoretical level
Reaching closure	Theoretical saturation when possible	Ends process when marginal improvement becomes small

To summarise, the case study inquiry tackles with the technical idiosyncratic condition in which there will be numerous variables of interest than data points, and one result. It also falls back on multiple sources of evidence, with data requiring converging in a triangulating style, and as another result. Case studies benefit from the former development of theoretical propositions to lead data collection and analysis (Yin, 2003b).

3.4.7 Interviews

Research interview is a conversation with a purpose and the qualitative research interview seeks to describe the meanings of central themes of the research topic. The main task of interviewing is to understand the *meaning of what the interviewees say*. There are three types of interviews which are structured, semi-structured and unstructured interviews and these can be in the form of telephone, group or face-to-face interviews (McMaster, 2005):

- Structured interviews – based on a schedule of pre-prepared questions
- Semi-structured interviews – no attempt is made to anticipate the replies of the respondent, but questions are generally developed in advance
- Unstructured interviews – based on a rough checklist of topics

It is worth to note that group interviews are different that focus groups because group interviews involve (1) asking questions, (2) listening to the answers and (3) recording the replies. Also, semi-structured interviews are powerful methods which enable researchers to generate rich and contextually situated data. Semi-structured interviews take place with respondents known to have been involved in a particular experience. It refers to situations that have been analysed prior to the interview. It develops on the basis of an interview guide specifying topics related to the research hypotheses. Finally, they focus on the subjective experiences under study (Dinnie, 2005).

Research interviews have a number of strengths such as being more personal form of research, enabling access to views and opinions, being flexible and responsive and can follow up information, access detail and depth quickly, provide comparative information on complex issues and builds contacts. On the other hand,

they demonstrate a few weaknesses such as interviewing can be a slow and expensive process, interviews can be difficult to be arranged, interviewer needs sufficient knowledge of the subject to sustain an intensive conversation, respondents will have little time to consider their response, can be difficult to ensure comparability and can be unpredictable, the interviewee may be uncomfortable, difficult to talk to etc. Table 3.4 summarises the advantages and disadvantages of different interviewing techniques to overcome the above weaknesses.

Table 3.4. Strengths and weaknesses of research interviews (McMaster, 2005)

Structured interviews	Semi-structured interviews and unstructured interviews
Strengths	
Comparable data	More informal
Easier to time and control the interview	Not imposing preconceptions, or putting words in the respondents mouth
Suitable for less experienced interviewer	Allows for new points to be followed up
Weaknesses	
Imposing a structure and predicting the answers	Can be difficult to compare the results
Inflexible and difficult to follow up points of interest	Easy to lose control of the interview
	Need for an experienced interviewer who can hold an interesting conversation during the interview

3.5 Choices Researchers Have to Make

There are large overlaps among management research methods therefore; choosing a research method or a mix of methods should really depend on favouring the most advantageous one and justifying the reasons for that (Yin, 2003b). First of all, according to the work developed by Beech (2005) and Mendibil (2003), there are two main drivers that influence the choice of the research paradigm.

- The nature of the phenomena (i.e. research problem) under study and kind of output required leads to choice of paradigm
  - The researcher is expected to justify his/her approach
- Personal preferences/styles and philosophical assumptions of the researcher
  - The researcher should explicate his/her knowledge claim

Figure 3.5 maps the research paradigms and some of the research methods according to involvement of the researcher to the phenomena and the setting and the nature of reality as perceived and preferred by the researcher in line with the above two criteria.
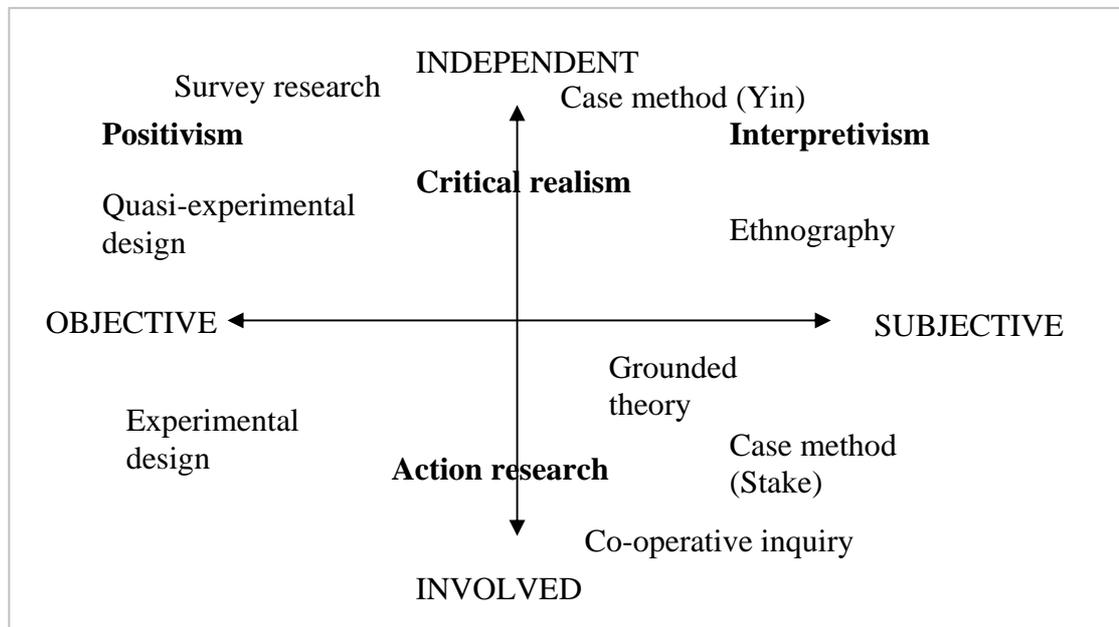
Figure 3.5. Research design and related method choices. Adopted from (Easterby-Smith et al., 2004)

Secondly, according to Yin (2003b) researchers are required to make some trade offs and choose among some research design alternatives. These elements are regarding the researcher's involvement in the research process, sample size, starting with data or literature resulting in theory testing or theory building or co-operative inquiry approaches, looking at a specific context or investigating a universal theory and finally confirmation or falsification. Figure 3.5 summarises some of these choices the researcher has to make depending on the nature of the problem and the preferences of the researcher.

Table 3.5. Key choices of research design (Yin, 2003b)

Researcher is independent	Versus	Researcher is involved
Large samples	Versus	Small numbers
Testing theories	Versus	Generating theories
Experimental design	Versus	Fieldwork methods
Universal theory	Versus	Local knowledge
Verification	Versus	Falsification

In conclusion, the research design map in Figure 3.3 can be considered as a robust basis for the researcher's design choices. Generally the choice of a research paradigm and methodology brings along the methods suitable within that paradigm as summarised in Figure 3.3 This can guide the choice processes that the researcher should go through to ensure a credible and valid research.

3.6 Criteria for Assessing the Quality of Research

Research methodology plays an essential role also in this research as key decisions are made during research methodology definition for achieving research quality and accuracy.

The research questions defined in the previous chapter were considered to be the core of this research. The objective, throughout the research process, is to find the right answers to these questions. In this way, once the research questions have been determined, the aim of this study will be to address those research questions through an accurate empirical investigation. However, how can the researcher ensure that the right research process will be carried out? The answer is defining an appropriate research methodology. Therefore, the researcher will concentrate on seven key research quality criteria which will be explained in the next section (Easterby-Smith et al., 2004; Yin, 2003b). The following research quality criteria derived from literature (Easterby-Smith et al., 2004; Eisenhardt, 1989; Yin, 2003a; Yin, 2003b) as well as the researcher's conversations with lead academics in PhD symposiums, academic conferences and university visits. These academics involve Prof. Gerry Johnson, Prof. David Wilson (British Academy of Management 2007 PhD Seminar), Prof. Abby Ghobadian (Henley Management College visit), Prof. Ken Platts and Dr. Steve Tanner (EurOMA 2007 PhD Seminar), Prof. Fran Ackermann, Prof. Chris Huxam and Prof. Nic Beech in Research Methodology Course 2005 at Strathclyde Business School.

This chapter will explain the research quality criteria which will guide the research methodology choices and will ensure a reliable, consistent and a systemic process to conduct research in the following sections. Then the evaluation of how

this research meets the quality criteria together with possible limitations and further work will be discussed and addressed in Chapter 7.

7-key criteria to ensure quality in this research:

1. What counts as data/ research evidence?

2. What counts for as a 'contribution' to knowledge?
   2.1 Theoretical basis for research (research should link to a theoretical debate)
   2.2 Enfolding literature

3. What counts for as a 'contribution' to practice?

4. Internal validity

5. External validity / Generalisability

6. Construct validity
   o Triangulation of data (e.g. case study research not only embracing interviews)
7. Reliability
   o An auditable process in data analysis that another person could adopt

3.6.1 Data/ research evidence

What counts for data which will provide evidence to answer research questions is very important in order to conduct a good quality research with credibility. Data can be; raw data, secondary data or worked data (based on the use of analytical techniques). The variety of data/ evidence can be gathered through research and used in a variety of ways – these options require overt decision making on the part of the researcher. Some data examples are (Beech, 2005): Organisational data; Financial and performance figures; Experimental data; Reported perceptions (i.e. others, yours); Transcripts; Field notes; Documents; Artefacts; Created representations (e.g. cognitive maps, metaphors, narratives); Project processes and outcomes; Workshop outcomes (captured using e.g. flip charts, response sheets, IT); Observations etc.

3.6.2 Contribution to knowledge

One of the major expectations from a good quality of research is its contribution to knowledge in terms of novelty of research and 'the added value' to what is known already in literature. This contribution could possibly in the following means (Beech, 2005): Confirmation of existing theories; Extension of a theory into new areas; New conjunctions between previously separate theories or disciplines; Advances in methodology; Developments in the application of techniques ; A proof; Disproving a null-hypothesis; Generation of hypothesis; Generation of grounded theory; Generations of insights; Theoretical reflection on practice.

3.6.3 Contribution to practice

Contribution to practice is a relevant research quality criterion if the research is mainly in applied research domain. This kind of contribution can be in the form of acknowledging policy makers or practitioners in such a way the research implications and conclusions can help them in decision making into business or social issues. Since management research is applied research, therefore applicability in practice needs a context specific robust classification while theory building.

3.6.4 Internal validity

This criterion is related to "explanatory and causal studies" merely, and not for "descriptive or exploratory" studies. This research quality criterion refers to setting up a causal relationship, whereby definite circumstances are exposed to lead to other circumstances, as distinguished from spurious relationships (Yin, 2003b, p. 34).

3.6.5 External validity/ Generalisability

This quality criterion brings up establishing the domain to those research findings that can be generalised so as to ensure credibility. The external validity has been a key problem for case study research. Critics generally declare that single cases present a poor basis for generalising, thus *replication logic* should be applied in order to test and to replicate the findings in multiple contexts (Yin, 2003b, p. 37).

3.6.6 Construct validity

Construct validity ensures that the correct operational measures for the concepts being studied are in place. In order to ensure construct validity, the use of multiple sources of evidence, in a way encouraging convergent lines of inquiry which is appropriate during data collection. A second tactic is establishing a chain of evidence, also is relevant during data collection. The third tactic is to have the draft case study report reviewed by key informants (Yin, 2003b).

3.6.7 Reliability

The research should demonstrate that the operations of a study – such as the data collection procedures – can be repeated, with the same results in an auditable way (Yin, 2003b). For instance, the process the researcher use during data analysis should be auditable and should follow a clear process that another person could adopt (i.e. it is not *idiosyncratic*). Hence, the purpose of reliability as a research quality criterion is to lessen the mistakes and biases in a research. Development of a case study protocol and a case study database are tactics to overcome reliability issues in case study research. "In this sense, an auditor is also performing a reliability check and must be able to produce the same results if the same procedures are followed" (Yin, 2003b, p. 39). Table 3.6 summarises some of general research quality criteria.

Table 3.6. Research design viewpoints related to research quality. Adopted from (Easterby-Smith et al., 2004, p. 53)

| | Viewpoint | | |
	Positivist	Critical Realist	Interpretivist
Validity	Do the measures correspond closely to reality?	Have a sufficient number of perspectives been included?	Does the study clearly gain access to the experiences of those in the research setting?
Reliability	Will the measures yield the same results on other occasions?	Will similar observations be reached by other observers?	Is there transparency in how sense was made from the raw data?
Generalisability	To what extent does the study confirm or contradict existing findings in the same field?	What is the probability that patterns observed in the sample will be repeated in the general population?	Do the concepts and constructs derived from this study have any relevance to other settings?
Most important criterion in judgement of research quality	External validity and reliability	Construct validity	Credibility, transferability, dependability and confirmability

Yin (2003b, p. 34) suggests the following tactics, shown in Table 3.7 in order to tackle with some of the above research quality challenges. Finally, Table 3.8 summarises the research quality criteria, which will be discussed in the discussions chapter of this dissertation to demonstrate whether an objective and rigorous research is accomplished or not.

Table 3.7. Some ways to deliver research quality criteria in case studies
(Yin, 2003b, p. 34)

Research quality criteria	Case study tactic	Phase of research in which tactic occurs
Construct validity	▪ Use multiple sources of evidence	▪ Data collection
	▪ Establish chain of evidence	▪ Data collection
	▪ Have key informants review draft case study report	▪ Composition
Internal validity	▪ Do pattern-matching	▪ Data analysis
	▪ Do explanation-building	▪ Data analysis
	▪ Address rival explanations	▪ Data analysis
	▪ Use logic models	
		▪ Data analysis
External validity	▪ Use theory in single-case studies	▪ Research design
	▪ Use replication logic in multiple-case studies	▪ Research design
Reliability	▪ Use case study protocol	▪ Data collection
	▪ Develop case study database	▪ Data collection

Table 3.8. Summary of research quality criteria in this research (Yin 2003b; Easterby-Smith et al., 2004; Maxwell, 2005)

Research quality criteria	Case study aim	Case study tactic	How this was achieved in the research?	Where in the thesis?
Construct validity	Are the correct operational measures for the concepts being studied in place?	▪ Use multiple sources of evidence ▪ Establish chain of evidence ▪ Have key informants review draft case study report		
Internal validity	This research quality standard refers to setting up a causal relationship.	▪ Do pattern-matching ▪ Do explanation-building ▪ Address rival explanations ▪ Use logic models		
External validity/ Generalisability	Are findings applied in order to test and to replicate in multiple contexts?	▪ Use theory in single-case studies ▪ Use replication logic in multiple-case studies		
Reliability	Will similar observations be reached by other observers? Do data analysis and findings follow a clear process to avoid idiosyncrasy?	▪ Use case study protocol ▪ Develop case study database ▪ Outer control, verification of results (conferences, publications, feedback from colleagues)		
Data/ research evidence	What counts for data in this research for an auditable, multi sourced research evidence?	▪ Organisational data ▪ Financial and performance figures ▪ Experimental data ▪ Reported perceptions (i.e. others, yours) ▪ Transcripts ▪ Field notes ▪ Documents ▪ Artefacts		

		▪ Created representations (e.g. cognitive maps, metaphors, narratives) ▪ Project processes and outcomes ▪ Workshop outcomes (captured using e.g. flip charts, response sheets, IT) ▪ Observations etc.
Contribution to practice	Are research implications and conclusions acknowledging policy makers or practitioners to help them in decision making into business or social issues?	▪ Suggestions, implications etc. ▪ Models, frameworks, road maps, guidelines, workbooks ▪ Normative practices
Contribution to theory	What is the added value to what is known already in literature? What is the theoretical basis? How the findings enfold literature?	▪ Confirmation of existing theories ▪ Extension of a theory into new areas ▪ New conjunctions between previously separate theories or disciplines ▪ Advances in methodology ▪ Developments in the application of techniques ▪ A proof ▪ Disproving a null-hypothesis ▪ Generation of hypothesis ▪ Generation of grounded theory ▪ Generations of insights ▪ Theoretical reflection on practice

3.7 Summary of Chapter 3

The objective of this chapter was to clarify the concept of research methodology and its implications for management research. To this end, the characteristics of research philosophies and a generic research methodology were described with a particular focus to case study method which is gaining popularity increasingly in management research. It is suggested that the content and the proposition of the research questions and the researchers preferences should be analysed in order to define the methodological requirements of a particular study.

Furthermore, this chapter clarified how to warrant the choice of the appropriate research methods and techniques, the philosophical research paradigms and their assumptions that surround a research by suggesting helpful tactics for research design choices and processes. The tactics and techniques presented in this chapter to choose the most conducive methodology for this research will be of help for the researcher in the following research design chapter. Finally, this chapter concludes asserting that research quality assessment (as summarised in Table 3.8) is very important to ensure credible research findings and implications.

4. RESEARCH DESIGN

Management research does not operate within a single ontological or epistemological paradigm except from traditional styles such as American approach which pursues often quantitative analysis and positivist approach. Therefore, it is a diverse and fragmented field with various debates. Management research, due to its applied nature and its concern to understand the organisation and "arrangement of resources to deliver optimal task performance and social cohesion, it may be argued to exhibit features of both *engineering* and *craft* orientations" (Tranfield & Starkey, 1998: 346).Thus, the research design is significant in order to conduct a robust and reliable empirical investigation.

4.1 Research Design Addressing This Study

Research design is defined by Yin (2003b: 20) as follows:

> *..the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions*

Research design does not only represent a work plan but also a well thought logical plan which helps to avoid the state in which the evidence does not actually address the research questions.

A *doctoral PhD* is a novel contribution regarding linking literature pieces; and theory building or theory testing. This section will focus on ideas and philosophies underlying this research which will add to the novelty of this study. Then, the researcher will warrant which methods and aspects are most likely to be of help in particular to this research and related research questions.

In the previous chapter the researcher explained the ways of scoping the field (Figure 3.3) in research methodologies and will use that articulation as a basis for her methodological design decisions. The building blocks for research design as identified earlier and will be explained in the following sections more in detail to justify my specific choices. Research design decisions comprise the following process in this research (Figure 4.1) and each step in the process will be explained in the following sub-sections.

Figure 4.1. Research design activity map (adapted from Beech, 2005)

Nature of research problem
+
The researcher's preferences influenced by his/her background,
interests, education, and work experience

↓

Justifying an ontology
(Subjective v Objective)

↓

Justifying an epistemology
(Independent v Involved)
(Subjective v Objective)

↓

Justifying a methodology
(Deductive v Inductive)
(Data v Literature as starting
point)   ← Eden's triangle

↓

Research
design   → Justifying the methods and   ← Depending on the
map   techniques   chosen paradigm
                                               and methodology

↓

Data analysis
Reaching closure
Addressing the research quality
Knowledge generation

4.1.1 Broad research problem

This research aims to clarify how strategy is managed in manufacturing SMEs. Like many other concepts in business research, there is no single definition of strategy that is commonly used and agreed upon. My interest for the present study lies in underlying strategy processes with special attention to the role of activities within the

strategy process in an SME context. This thesis is positioned within the tradition of *strategy process* research that will be explained further in the following section. In short, making prescriptions is not my aim, however looking at strategy process excluding its content and context is not feasible and useful (Pettigrew et al., 2002; Chakravarthy and White, 2001). Therefore, also normative research with an emphasis on content issues can contribute to our understanding in strategy processes in SMEs. These issues will be further discussed in 'Unit of Analysis' section in this thesis.

Thus, the broad research question asked at the beginning of this research is: ***How*** *does the strategy process work in manufacturing SMEs?* I aim to answer this question in the light of observed findings through empirical work. The *exploratory* nature of this research question is indicating the usefulness of choosing a case study method initially.

4.1.2 The researcher's preferences

The researcher's background and preferences also influence the research paradigm and methods to be pursued because it is important that the researcher should feel comfortable within the paradigm he or she chooses. In a PhD study, the researcher joins in a debate and sets boundaries to what he or she is investigating through the theoretical ground, literature and choosing the methodology which ultimately narrows down and scopes the topic of the research.

This implies that we have a world view prior to becoming researchers and that it makes little sense to divide our world view into types of slots, where for instance a scientific world view is kept totally apart from other beliefs and experiences. Early during my doctoral studies, I experienced that my educational background influenced my view on a couple of issues relating to the philosophical nature of reality in the social world. Since they are important to my working paradigm, I will address them here.

I have an undergraduate degree in Industrial Engineering and therefore interested in production related companies. Industrial engineering is a subject field which tries to optimise the interaction between people and production systems and uses techniques, methods, processes and models to increase efficiency and effectiveness

of those systems. My educational background and work experience involve general management studies and production engineering disciplines. Hence, I am employing a *process based view* as a theoretical framework (See Chapter 2) while investigating strategy in SMEs because I feel more comfortable to look at social world issues by breaking them into elements such as activities in a process. A process based approach enables me to break crude strategy processes of formulation, implementation and review phases into more specific activities. In this way case study analysis will hopefully deal with more easily observable strategic activities rather than high level strategy concept.

4.1.3 Ontology choice exploration for this study: Objective ontology

What is the truth? And how do we look at it? "One's terrorist is one's freedom fighter" (http://www.operationalresearch.org/discussion) Truth is not a solid, concrete or single entity. However, there is one solid truth that we all will die. Therefore, it is a dilemma to seek for the concrete truth in the world. Is that existing or not? Are they all human creations as Interpretivist paradigm suggests or are concrete, but cannot be accessed directly as positivist paradigm suggests? (Easterby-Smith et al., 2004). We interpret the material world and the interpretations we make might be essential to understanding social phenomena. Still the material components of reality as such will not change due to our interpretations of them. Thus, the social reality go hand in hand and should be subject to our interest.

I believe that reality exists independently of how we perceive it. Thus, I see myself as an *independent* observer, seeking for explanations in company behaviour regarding 'strategic thinking' and 'doing'. Moreover, I feel more comfortable in the frame of mind that social world should be looked at more *objectively* rather than from individuals' own perspectives in result of their own interests. Hence, I intend to stay independent from the companies and aim to understand underlying activities within strategy processes from an *objective* ontology. Table 4.1 refers a summary of the researcher's warranting of ontology decisions.

Objective ontology is therefore the preferred ontology for this research, because it allows the researcher to examine the extent to which strategy process is

the sum total of strategic activities which fit together in practice. The focus is facts and clarification rather than meanings.

Table 4.1. Relevant characteristics for different research ontologies (Beech, 2005)

Relevant characteristic	Form of ontology	Relevance area with this research	Application in this research
Focus on facts	Objective	The extent of control the researcher has over actual strategy process and activities in SMEs does not exist. It is believed that the truth holds, regardless of who the observer is.	Yes
Look for causality	Objective	This research aims to clarify how strategic initiatives and decisions *link* with implementation plans. Focus is essences that fit together in some system.	To some extent
Reduce phenomena to simplest elements	Objective	Strategic planning and implementation are broken into activities from the literature.	Yes
Formulate hypotheses and test them	Objective	No hypotheses are formulated but the conceptual strategy process framework will be tested out. Aim is to discover what is there in practice through observations and interviews, and then compare it with literature.	To some extent
Operationalise concepts so that they can be measured	Objective	Concepts are operationalised by constructs but quantitative measuring of constructs not considered.	To some extent
Take large samples	Objective	Not convenient because large scale questionnaire surveys for instance would not provide evidence on *how* those strategic activities and processes are carried out in practice.	No
Focus on meanings	Subjective	The broad aim is *clarifying* strategy process and activities through field observations in SMEs. The truth is not deemed to vary depending on the observer.	To some extent
Try to understand what is happening	Subjective	This research aims to understand SME manager's language in strategy process. They may not call it strategy process however the activities within the process might be in their agenda.	Yes
Look at the totality of each situation	Subjective	This study aims to clarify how activities in the strategy process fit together in order to achieve strategy outcomes.	To some extent
Develop ideas through induction from data	Subjective	The starting point is literature rather than data	No

4.1.2 Epistemology choice for this study: Critical realist paradigm

In specific to this research topic, strategy, similar to the environment and the organisation is a construction, reproduced by a variety of practices that helps make sense of the world (Hardy *et al.*, 2000). However, I also aim to clarify strategy processes and activities as they are carried out in SMEs investigated in order to ensure successful strategic outcomes. These processes and activities are seen as independent and objective entities existing in organisations therefore, I see my research taking more of a *critical realist approach*.

Firstly, I share the idea of positivism that world is knowable, accessible and independent reality exist, however the challenge is getting the investigation method right for generalisable claims. However, alternatively, if the researcher was to choose positivist paradigm, she might have potentially some significant research limitations and practical issues such as that the samples may not be random or she may not be able to access large sample sizes to *generalise* the results which is the focal research quality in positivist paradigm.

Secondly, considering the methodological limitations, the researcher could choose Interpretivist paradigm which claims that there are no independent objective reality and the world is constructed through personal experiences, as a result the knowledge generated is contingent, provisional and embedded in that context. However, I intend to clarify strategic activities within strategic planning, implementation and review processes in manufacturing SME context. Hence, I expect to deal with *objective facts*. I suppose that there are phases and activities which ensure strategy processes leading to strategic outcomes in organisations although the strategy process might not be entirely explicit but rather embedded in organisations.

A feasible and doable research design is crucial at the beginning of the research. It would be presumably very time-consuming to try to develop ideas thorough induction from qualitative data generated by observations, in-depth interviews or analysis of historical data. She might also use "Discourse Analysis" to focus on the meanings. Transcribing every single interview and analysing the speech

acts and building up taxonomies could possibly be not only lengthy but also impractical. In conclusion, I am taking a middle view and pursuing *Critical Realist* paradigm in this research.

As a result the knowledge which will be generated with this study will be objective and context dependable reality.

The following Figure 4.2 as explained in the previous chapter will clarify the researcher's choice of epistemology considering the objective ontology position which was justified in the previous section and the independent role of the researcher.
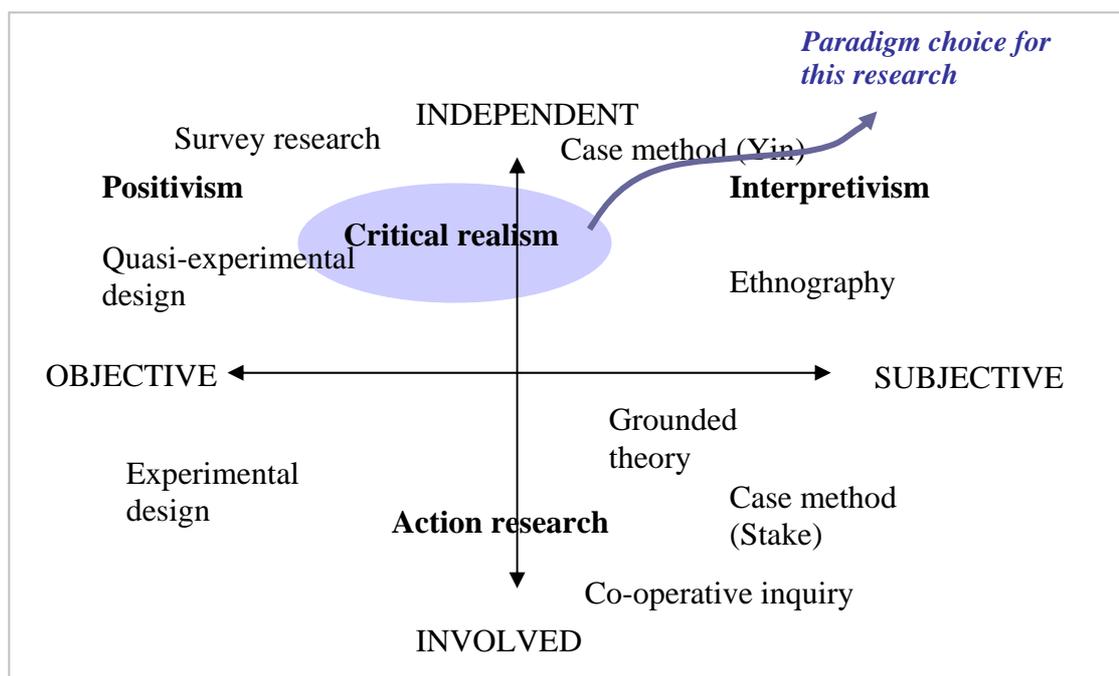
Figure 4.2. Paradigm choice for this study
Adopted from (Easterby-Smith et al., 2004)

4.1.3 Methodology choice for this research: Inductive approach

This research is mainly literature driven and develops a conceptual framework to start with. This research did not start with any preconceived set of hypotheses and theories to test. As I read more into literature in strategic management and empirical studies which look at SME companies, I have become more aware of the debate I was going into. The processual theory is also considered to be useful to understand organisational context in real life situation and thus

considered to provide the researcher with guidelines and ideas to conduct empirical work.

I suppose my research direction would completely change if I followed Interpretivist epistemology and consequently a subjective ontology (Figure 4.4). Firstly, my starting point would be *data* rather than *literature*. Figure 4.3 maps this research domain regarding source of inspirations and genuine interests as a starting point. The REL (Rational, Empiricism, and Literature) triangle (Beech, 2005) is used to plot the sources of inspiration to this research (Figure 4.3). As it is pointed out on the diagram this research started with literature. Then, strategy literature, looking at particularly SME companies, is reviewed and concluded that the similar patterns in strategy processes occur in an SME context. The next phase is to conduct field work and to compare the conceptual model and real world.

This conceptual framework is aimed to provide rigorous classifications and constructs which will guide the empirical investigation. However this research also keeps an open mind into empirical inquiry since the emerging findings from empirical study will be fed into literature and the contribution will hopefully be towards extending the processual theory into the context of manufacturing SMEs. As a result, the research domain is nearer to empirical study with insights from the literature as shown in Figure 4.3.
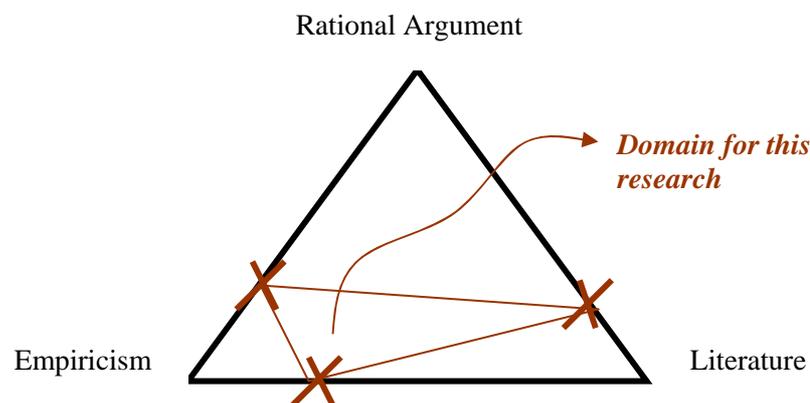
Figure 4.3. The REL triangle. Adopted from Colin Eden in (Beech, 2005)

As a result, this research follows an *inductive* methodology rather than hypothetico-deductive methodology because I am not aiming to test out pre-

determined hypotheses. The conceptual model deduced from literature provides ideas prior to empirical inquiry; however my main aim is to be *open* to emerging patterns from data.

4.1.4 Research methods/techniques for this research: Case study method

The choice of ontology and epistemology usually reflects the choice of methods used within a research. An objective ontology, a critical realist epistemology and an inductive methodology are deemed to be the most appropriate for this research as explained in the previous sections. As a result, this path leads to a number of particular research methods and techniques available and most advantageous for this research. These methods include case studies, interviews, observations, experiments, participation, grounded theory and discourse analysis (Easterby-Smith, Thorpe & Lowe, 2004).

Selecting a research method is relevant to the researcher's paradigm choice and will have an impact on collecting and analysing empirical evidence (Yin, 2003b). To expand on the underlying principle summarised in Figure 4.2, this section will explain the grounds behind choosing between case study method versus survey method, experiments and participation. All methods have benefits and drawbacks; however my main purpose is to trade off between methods in the light of the my working paradigm and to choose the most appropriate and advantageous method which will provide reliable and rigorous answers to my research questions.

The research questions which are interest to this research are how questions and therefore not prescriptive but more of exploratory in nature.

> *"There is no one best way in management; no prescription works for all organisations. Even when a prescription seems effective in some context, it requires a sophisticated understanding of exactly what that context is and how it functions. In other words, one can not decide reliably what should be done in a system as complicated as a contemporary organisation without a genuine understanding of how that organisation really works. In engineering, no student ever questions having to learn physics, in medicine, having to learn anatomy. Imagine an engineering student's hand shooting up in a physics class: 'Listen, prof, it is fine to tell us how the atom does work. But*

what we really want to know is how the atom should work.' Why should a management student's similar demand in the realm of strategy or structure be considered any more appropriate? How can people manage complex systems they do not understand?" (Mintzberg & Quinn, 1992: xii).

As it is pointed out in Mintzberg and his colleague's work (1992), I similarly aim to *clarify* concepts and to see *how* literature suggestions on strategy process work in a manufacturing SME context. To sum up, the research questions for this study are more *'how'* oriented and aims to clarify concepts and linkages among them rather than aiming to provide normative strategy process prescriptions for specific contexts.

I am going to use the following criteria to select the most appropriate research methods which will help me trade-off between potential research methods in the following sub sections.

- Research questions posed
- The extent of control the investigator has over actual behavioural events
- The degree of access and available resources

I will now expand on why a case study method was considered to be more appropriate to research the topic of this study up-front. I will make comparisons between case study method versus other available methods in the following sections.

4.1.4.1 Case study versus Survey method

Survey research can include case studies or questionnaires, but the most important point is providing large samples and generally using quantitative data analysis techniques. The type of research questions of this study is mainly *how* related questions. Survey methods appear to be powerful while answering *who, what, where, how much and how many* questions. The current research project aims to examine strategy processes and activities which might be formal or embedded in organisations in SMEs operating within production environments. I am seeking *detailed evidence* into activities and phases summarised in the conceptual model developed earlier (Figure 2.4). Thus, I consider that case study method would provide me more insights into shedding light on how strategy process works in an SME context by providing rich real life stories (Voss et al., 2002). Given the type of

research issues, *case study method* is therefore considered as a valid and more advantageous method than questionnaire surveys.

4.1.4.2 Case study versus Experiments

The option of the experimental method in which the researcher has direct, precise and systematic control over the behaviour of the variables under inspection (Yin, 2003b) is not available to me in this instance. I do not aim to control or influence the strategy processes in SMEs but rather aim to understand and clarify *how* SME managers are making strategic plans and how those plans are put into action as they happen in real company settings.

Moreover, experiments are commonly used methods in physical sciences and are impractical in management research (Beech, 2005). Again, when the two criteria, first the type of research questions and second the extent of control the researcher has over actual events, are considered in conjunction with the requirement, researcher's access limitations to resources, only *case study method* is considered satisfactory.

4.1.4.3 Case study versus Participation

Participant observation, ethnography or discourse analyses are commonly used within grounded theory approach which is closer to interpretivist epistemology and might be conducted over a long period time (longitudinal). Although any of the above research approaches would be suitable for this research due to resources and access limitations, case study method is considered to be more applicable. Participation in strategy away days and workshops as well board meetings would potentially give new insights into more detailed strategic practices and activities in SME companies. However in SMEs strategy management is characteristically more intuitive and informal rather than being a phenomenon generally discussed in formal meetings. Thus, *case study method* appears to be more advantageous in this study.

4.1.4.4 Summary: Case study method choice for this research

I believe that neither a pure interpretivist and grounded theory nor pure positivist approach would be suitable to answer my research questions because of the above reasons. Rather, a *critical realist* approach, benefiting the advantages of both fundamental views, would be more favourable for this research. Critical realist

paradigm is becoming increasingly popular in management research. Critical realist paradigm shares some characteristics with positivist approach by agreeing that the world is independent to out cognition but exercises judgement. Thus, critical realist paradigm departs from positivism in how one can access that world. Critical realism does not use large scale surveys and large samples but rather suggests that one can reach world through concepts which are context specific. As a result, construct validity and developing better concepts to access reality are very important.

Since this research is not trying to make a change in the phenomenon therefore, an action research or experiments would be not suitable. Also, since the research questions are more 'how' questions as a result, a *case study* method would be beneficial. Table 4.2 summarises the method choices and justification made for this study.

To sum up, as Robert Yin points out the advantages of case studies compared to experiments or surveys when context and real life situation are important into researching the phenomenon. Yin (2003b: 13) argues that an experiment intentionally divorces a phenomenon from its context, so that concentration can be focused on only a few variables "typically, the context is controlled by the laboratory environment". Surveys can try to cope with the phenomenon and context, but their ability to investigate the context is partial. The survey designer frequently struggles to limit the number of variables to be analysed "and hence the number of questions that can be asked" to fall safe and sound within the number of respondents that may be surveyed.

As a result, I believe that *case studies* are more appropriate and conducive in order to answer my research questions. Case study method will be also supported by in-depth multiple interviews, analysis of company documents, field notes and observations as well as using extant literature for triangulation purposes. Figure 4.4 demonstrates the research design path chosen for this study.

Table 4.2. Research method choice for this study (Adapted from Yin, 2003b)

Method	Form of research question posed	Requires control of behavioural events?	Having access and available resources	Application in this research
Survey	Who? What? Where? How many? How much?	No	Yes	No
Experiments	How? Why?	Yes	No	No
Participation	How? Why?	Yes	No	No
Case Study	How? Why?	No	Yes	Yes
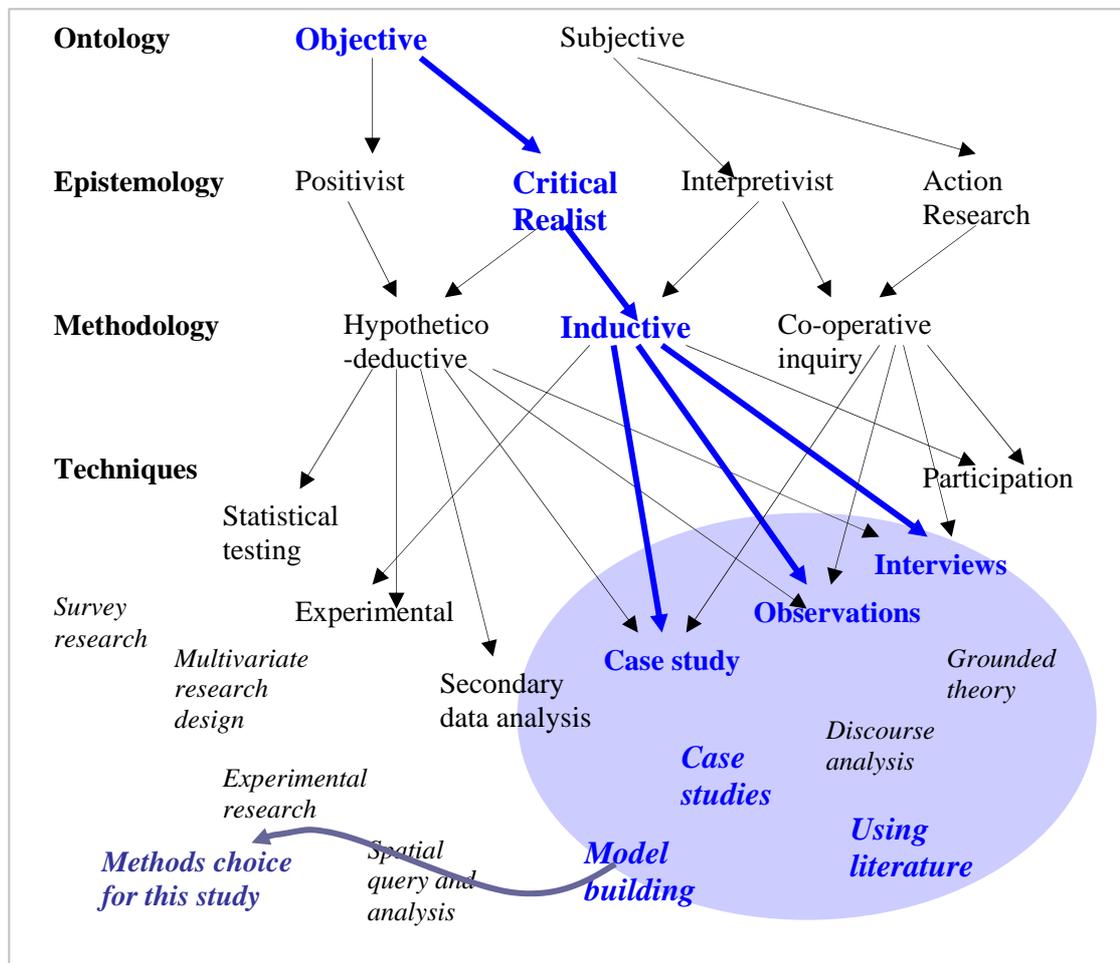
Figure 4.4. Research design choice map for this research

4.2 Case Study Design Addressing This Study

Denzin and Lincoln (2003) suggest that rich descriptions of the social world are valuable and qualitative researchers believe that this rich picture is important to understand social world issues. In contrast, quantitative researchers are less concerned with rich pictures because they believe that such detail interrupts the process of developing generalisations.

A thoughtful case study design and selection of case studies are very important in theory building or extension. Eisenhardt and Graebner (2007: 25) suggest that "a careful justification of theory building, theoretical sampling of cases, interviews that limit informant bias, rich presentation of evidence in tables and appendices, and a clear statement of theoretical arguments" are important elements in case study research which bring objectivity and possibly generalisability. The result is fresh theory that bridges well from rich qualitative evidence to mainstream deductive research that is the "hallmark of building from case studies". Four components of case study research design are especially important prior to data collection, data presenting and data analysis (Eisenhardt, 1989; Voss *et al.*, 2002; Yin, 2003b). These four elements will be discussed in the following sections.

- Choosing case study type
- Developing the research framework, constructs and questions
- Selecting cases
- Developing research instruments and protocols

4.2.1 Case study type

Robert Stake suggests looking at phenomenon in isolation with the belief that there is not value in comparing cases since they are all particular, therefore it is not possible to compare one case to another (Stake, 1995). On the other hand, Robert Yin and Kathleen Eisenhardt emphasise the issues with theoretical sampling and suggest that a phenomenon can be observed in a particular context explaining the rationale for multiple case studies (Yin, 1981; Eisenhardt, 1989; Yin, 2003a; Yin, 2003b; Eisenhardt & Graebner, 2007).

Accordingly, how to pick case types is dependant upon theoretical sampling and purpose sampling. This research follows Yin and Eisenhardt's approach and adopts a ***multiple case study approach*** because multiple-case logic produces robust results and contributes to theory through rigorous concepts and constructs, triangulation, replication logic and pattern searching. Also, Table 4.3 demonstrates that this research is nearer to "theory extension and refinement" in order to clarify whether the strategy process theory applies to manufacturing SME context through comparing literature with practice and adding to incomplete theory (if it was). Thus, clarifying the strategy process theory in the light of the observed results in practice is the main purpose in this research (Table 4.3).

In conclusion, this research adopts a multiple cross case studies in order to refine/ extend the existing theory.

Table 4.3. Case study type for this research

Purpose	Research question	Research structure
Exploration Uncovering areas for research and theory development	Is there something interesting enough to justify research?	In-depth case studies Unfocused, longitudinal filed study
Theory building Identifying or describing key variables Identifying linkages between variables Identifying 'why' these relationships exist	What are the key variables? What are the patterns or linkages between variables? Why should these relationships exist?	Few focused case studies In-depth field studies Multi-site cases studies Best-in-class case studies
Theory testing Testing the theories developed in the previous stages Predicting future outcomes	Are the theories we have generated able to survive the test of empirical data? Did we get the behaviour that was predicted by the theory or did we observe another unanticipated behaviour?	Experiment Quasi-experiment Multiple case studies Large-scale sample of population
Theory extension/ refinement To better understand the theories in light of the observed results	How generalisable is the theory? *Where does the theory apply?*	Experiment Quasi-experiment *Case studies* Large-scale sample of population

4.2.2 Getting started: Defining the specific research questions

Strategy process research attempts to address the question of how strategies are formed, implemented and changed. So, to answer the broad research question of: *How* does the strategy process work in manufacturing SMEs? I further developed the following research questions of HOW and WHAT from the literature (See Chapter 2):

- What are the key activities that are carried out by manufacturing SMEs in the strategy process?
- What is the key focus of the strategy process in the context of manufacturing SMEs?
- What strategy tools, techniques and methods are being employed in manufacturing SMEs?
- How do strategic initiatives and decisions lead to implementation in manufacturing SMEs?

The research paradigm pursued in this research, Critical realism, also emphasises ways to understand how things fit together and tries to understand world through better concepts and constructs rather than large samples. Concepts are theoretical ideas and constructs refer to somehow measurable ways of concepts. This can be done in a qualitative way such as scales of *low to high* or *nearer to far.* Thus, the researcher aims to understand practice. Therefore, a conceptual framework (Figure 2.4) deduced from a comprehensive literature review comprises strategy phases and activities which refer to *concepts* in this study.

The motivation is to understand patterns in different cases and seeing the repeatability (if they) of patterns across cases. Replication of patterns would lead to generalisable answers to research questions. Therefore, a consistent, reliable, repeatable case study design in empirical investigation is crucial in order to answer the above research questions rigorously.

4.2. 3 Selecting case study organisations

Case studies are useful regarding how to get to reality through field work. Case studies provide context dependant reality which was at the core of my research. I aim to understand strategy processes in a manufacturing SME context Therefore; case

studies demonstrate practice for investigation as well as the interaction between theory and practice that help us move from subjectivity (Eisenhardt, 1989). There are three approaches to select case study types (Eisenhardt & Graebner, 2007; Siggelkow, 2007):

1. *Motivation.* finding a case interesting

2. *Illustration.* the most common approach in American journals (Eisenhardt, 1989; Eisenhardt & Graebner, 2007). Empirical section is organised theoretically and mechanistically with the purpose of drawing on case studies to illustrate examples.

3. *Inspiration.* the case tells the story and lets the concepts emerge. "Case study is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances" (Stake, 1995: xi).

In this research the main aim is to investigate how strategy process works in manufacturing SMEs. I am particularly interested in manufacturing/ production companies due to our close contacts with manufacturing SMEs in the UK and my educational background as an Industrial Engineer. In addition, this research aims to spot the patterns in strategy processes in SME companies so as to be able to *illustrate* examples. I consider that looking at medium-sized SMEs would potentially give more insights into strategy processes since those companies might be engaging more advanced management practices. In contrast, small and micro businesses might be very informal and less mature in their strategic management practices. Besides, subsidiaries of larger organisations may be dependent on the parent company on strategic issues and as a result may not be providing sufficient evidence on activities within the strategy process. Therefore, this study will look at manufacturing SMEs which have 100-150 employees representing medium-size and are autonomous organisations.

Moreover, it is very important to compare like with like in order to reach reliable answers to the research questions in multiple case studies. Thus, as it is suggested in the researcher's conversations with Abby Ghobadian (Professor in Organisational Performance) from Henley Management College and Monder Ram (Professor in Strategy and Management) from De Montfort University Leicester, some variables should be constant among case studies. For instance,   independent SMEs and

subsidiary SMEs may not be comparable because for instance, independent SMEs may not have the same level of access opportunities to resources like subsidiaries of larger companies. Also, subsidiary firms could be less influential over strategic issues because of their high dependency to larger organisations into decisions making.

As a result, this study will investigate independent, medium- sized, manufacturing SMEs in the UK.

4.2.3.1 Unit of Analysis

Process research has opened the organisational black box by exploring how strategy is actually developed and executed in its organisational context (Pettigrew, Thomas and Whittington, 2002). Pettigrew (1992) argues that strategy should be studied contextually and historically. Andrew Pettigrew also notes that theoretically sound and practically useful research should consider the process, the content and the context of strategic change. During strategy processes, managers think about strategy content and act in order to influence it, therefore looking at content issues as the unit of analysis can contribute to our understanding in strategy processes.

My interest for the present study lies in understanding strategy processes empirically in an SME real life context. Case study method is favourable in empirical research (Yin, 2003b). Data points are important to look at in empirical investigation because I aim to understand the underlying activities and practices within strategy processes in SMEs. Thus, strategic journeys, decisions and initiatives in the investigated SMEs are the ***unit of analysis*** for my research rather than organisations. As Chakravarthy *et al.* (2003) points out strategic initiatives are easier to observe than considering organisations as the unit of analysis. Strategic initiatives involve major decisions taken in the organisation and reflect what the company operations focus on (e.g. growth strategy, re-structuring). Thus, I will look at strategic initiatives as the unit of analysis in my research.

I consider strategy having to do with the issues that are of major importance to the organisation, for instance concerning its long-term direction, scope, relationships to the environment, and resources (Schendel and Hofer, 1979; Johnson and Scholes 1999). In contrast, minor issues in the organisation would be considered as strategically important if in total they had a significant impact on the organisation.

The distinction between strategic and non-strategic issues is thus primarily a matter of drawing a more or less subjective dividing line between the important and the less important issues. The label strategic initiatives become a description of magnitude (Chakravarthy et al., 2003; Pettigrew, 1992). In an SME context strategy management has a particular focus on operational excellence (Jennings and Beaver, 1997; Cagliano, 2001). Therefore operational decisions and initiatives may be also considered as the unit of analysis in my research.

4.3 Summary of Chapter 4

I started this research with a comprehensive literature review on the strategy process in an SME context (Chapter 2) and I deduced a conceptual framework (Figure 2.4) from literature. Although I rely on literature to build up my initial argument, I aim to enrich the conceptual framework developed in Chapter 2 through data analysis in a manufacturing SME context. As it is suggested in Eisenhardt (1989) and Yin (2003b), I position myself to be open to find new ideas from data. I intend to provide a richer picture about the strategy process in SME context. Therefore, a theory extension/ refinement type of multiple case study approach is taken in this research. Besides, I am aware of some potential limitations of case study research, for example achieving large numbers of case studies might be impractical due to case study selection criteria and point of contact constraints.

To sum up, this chapter explained research design choice for this study in order to connect the empirical data to the research questions and in the end to this research's conclusions. To this end, this chapter justified the choice of the appropriate research methods, the philosophical research paradigms and their assumptions that surround this research. I also described some other potential research strategies that could be adopted for dealing with the research questions alternatively. Then through this comparison I justified the selected approach in this thesis. Limitations of this methodology shall be discussed in the light of learning from empirical study in the final chapter. This chapter concludes asserting that this study meets the characteristics of the *critical realist paradigm* and finally it selected *case study research*, which is a powerful method in management research (Voss et

al., 2002). The following chapter will deal with data collection and presenting issues (i.e. methods, instruments, protocols) in this study.

5. FIELD WORK: Data Collection and Presenting

The following are the steps in conducting case studies (Eisenhardt, 1989; Voss, Tsikriktsis, & Frohlich, 2002; Yin, 2003):

- Choosing case study type *(addressed in Chapter 4)*
- Developing the research framework, constructs and questions *(addressed in Chapter 2)*
- Selecting cases *(addressed in Chapter 4)*
- Developing research instruments and protocols
- Entering the field
- Analysing data
- Reaching closure

to be addressed in this chapter

Choosing the case study type and selecting cases were explained in Chapter 4 and the research questions and the conceptual framework were developed after an in depth literature review and gap analysis in Chapter 2. In summary, this research adopts a *multiple cross case studies* in order to *refine/ extend the existing theory* in strategy process in manufacturing SMEs. The study will investigate *independent* (non-subsidiary) *manufacturing SMEs* with similar headcounts (medium-sized) in the UK. This chapter will deal with ***developing research instruments and protocols*** as well as ***data collection and presenting (entering the field)***. The process described below will explain the steps that I have taken in order to get prepared for a reliable and repeatable data collection process. The subsequent diagram (Figure 5.1) summarises the research activity map I have used in data collection.
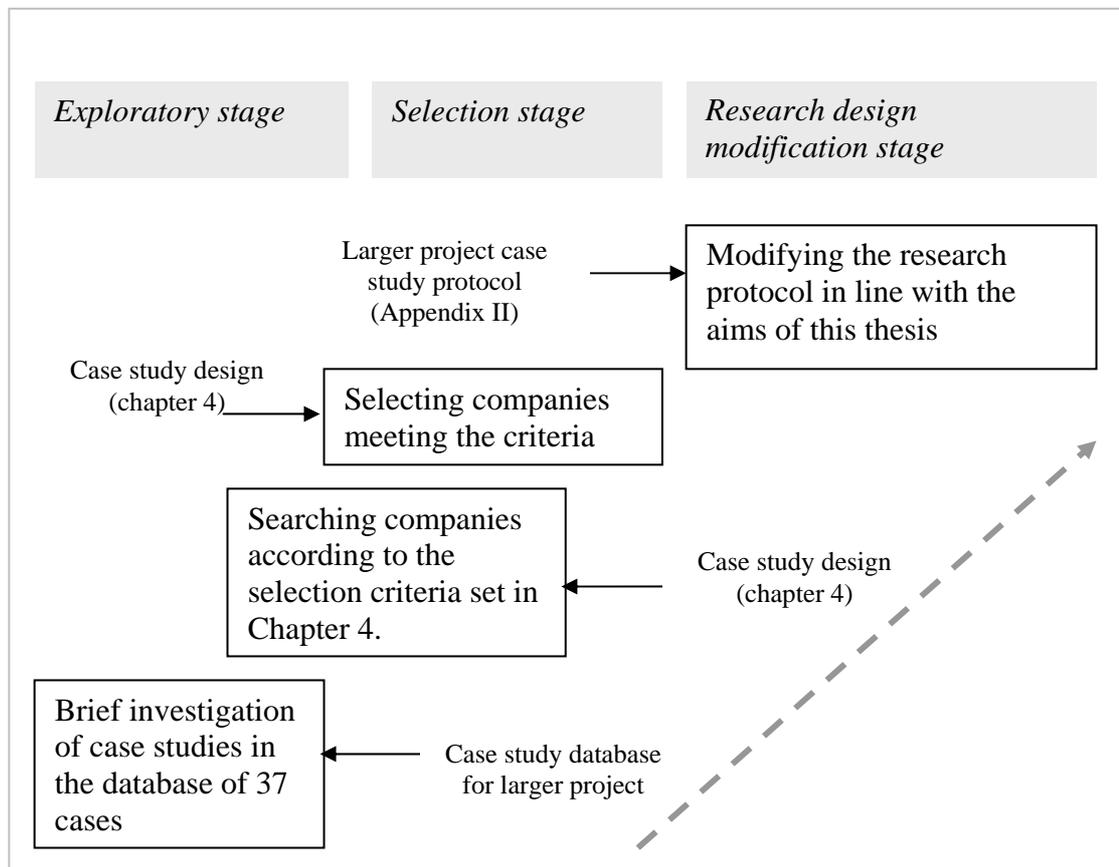
Figure 5.1. Research activities used for field work in this research

The activities are carried out in three stages i.e. exploratory stage, selection stage and research design modification stage. The next section explains each step in detail.

5.1 Exploratory Stage

Firstly, the *exploratory stage* refers to glancing at the case study database developed for the larger project and this PhD research being part of it. The case study research undertaken is a part of EPSRC (Engineering and Physical Sciences Research Council) funded research project 'Understanding and Managing the Manage Processes: what makes successful companies different?' started on 1st March 2005 (EPSRC Standard Research, GR/T25897/01 account number 11603RA3330). This is a project which aims to identify management practices regarding direction setting, strategic planning, environmental scanning, and change and performance management from a multi-disciplinary, multi-methods and multi-site study across Europe. The case study database for this project involves 37 SME-like companies

(independent and subsidiary of larger companies) and different sectors mainly from manufacturing sector and from several countries in Europe such as the UK (Scotland, England, and Northern Ireland), Poland, Turkey, Italy, Germany, Malta and Czech Republic.

I searched the database and looked at company profiles in terms of employee number, sector, ownership and country of origin in order to select my case study companies for my thesis. I will explain more explicitly how I ended up my set of case study companies in the following sections.

5.2 Case Study Selection Stage

Secondly, *selection stage* deals with choosing the sample from the database in the light of research aims and questions. The selection criteria was set and explained in the previous chapter (Section 4.2.3). The criteria for selection of case studies were:

1. Independent SMEs because subsidiary companies could be potentially less autonomous in strategic issues
2. Medium sized SMEs because small and micro businesses could be immature in strategic issues
3. In order to compare like-with-like SME from manufacturing sector and based in the UK. UK context was also interesting because chosen SMEs are all managed to survive in this challenging environment for manufacturing companies (high energy and labour costs etc.).

I aim to see the patterns in strategy processes in manufacturing/ production SMEs so as to be able to *illustrate* examples. This research is limited to manufacturing companies therefore firms within service sector were opted out in the case study database.

On the other hand, this research does not aim to investigate cross-national cases because of practicality issues such as translating the interviews in a reliable and consistent manner. Cross-national case studies were also avoided because I consider that looking at one context such as UK would enable me to compare like with like which is very important in multiple cross-case research. So, I conclude that looking at one particular country and one sector which is manufacturing sector in the UK will

narrow down the investigated companies so it will help to produce comparable data for analysis. UK context is also interesting because it is a challenging environment for manufacturing SMEs (Mills et al., 1998). Thus, I aim to select SMEs that managed to survive in the UK by fighting against fierce competition emerging from low cost countries.

Case study design, data collection and analysis were carried out by the researchers in the project team. I contributed significantly to all phases in the research project since the start of the project. Case study interviews were carried out by me and the other members of the research team. Therefore, although I did not carry out the interviews in the Sample II, I re-listened to the interview recordings and discussed my interpretations and case study reports with the researchers who conducted the interviews. I will use two samples of data:

Sample I includes companies where I led and conducted the interviews myself and have written up the case study reports consistent with the purposes for this research.

Sample II includes companies where the other members of the team carried out the interviews. I re-listened to the electronic recordings and coded qualitative data into an SPSS database for the larger project (not in this research). I have written up case study reports according to the purposes for this research by discussing the cases with the research team and by re-listening to the electronic recordings.

The applicability of this approach having two samples for case study data analysis was confirmed with Prof. David Wilson, who is a professor of strategy at University of Warwick. I asked Prof. Wilson's opinion in British Academy of Management Conference (BAM, Warwick 2007) doctoral seminar during his 'Data Analysis' lecture.

As a result, the researcher has selected two samples from the database. Sample I includes Blairs of Scotland and Cemtron. Sample II comprises TFC Cables and Houston Co-pack, all of which are all autonomous manufacturing companies based in the UK with similar sizes.

Case study
companies

Sample 1 (The researcher carried out the interviews) Cemtron – Electronics contract manufacturer Blairs – Windows and doors manufacturer	Sample 2 (The researcher listened to the interview recordings) TFC – Electronics contract manufacturer Houston Co-pack – Manufacturing of contract packaging for whisky industry
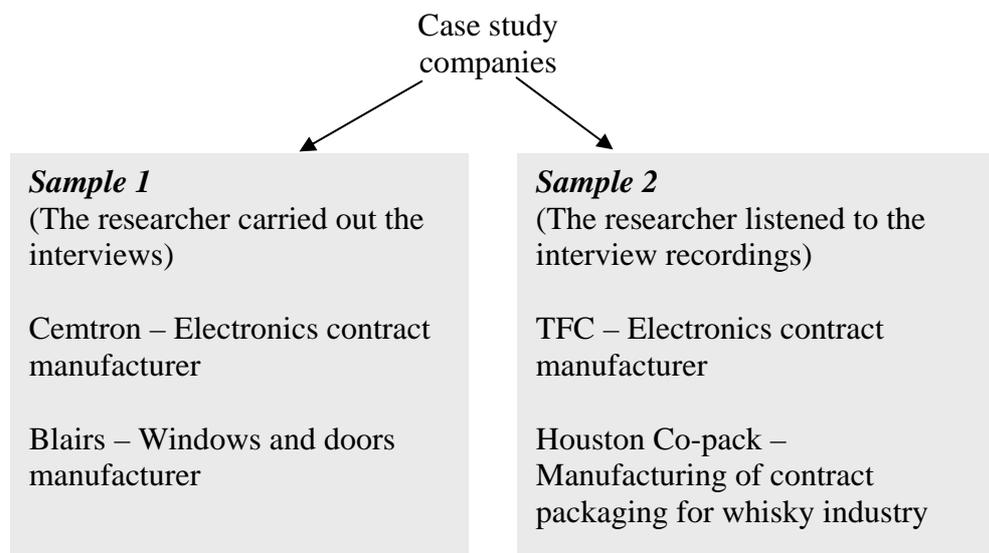
5.3 Research Design Modification Stage: Case study protocol refinement

This research aims to clarify patterns in strategy processes in manufacturing SMEs. Therefore, Chapter 2 put emphasis on developing a conceptual framework (Figure 2.4) deduced from literature and narrowed down the research topic by setting specific research questions. Chapter 4 dealt with research design for this study and sampling issues. The next phase in the research process is getting prepared for field work. Designing case study protocols are very useful in order to conduct multiple case studies and collecting data in a robust, reliable and repeatable style.

In Figure 5.1, r*esearch design modification stage* refers to firstly modifying the current case study protocol developed for the larger project and refining it for the purpose of this study (Appendix II). Secondly, case study reports are written up according to the modified protocol by re-listening to the interview recordings by the researcher again.

5.3.1 Case study protocol to get prepared for the field work

Developing a case study protocol is sought under all situations in case study research, but especially essential in multiple case study research. The protocol is a tactic to increase 'reliability' of multiple case study research (Yin, 2003). Mainly, a case study protocol comprises of the following sections (Yin, 2003, p. 69):

- An overview of the case study project (project objectives and sponsorship, case study issues, and relevant readings about the topic being investigated)
- Field procedures (presentation of credentials, access to the case study sites, general sources of information, and procedural reminders)
- Case study questions (the specific questions that the case study researcher must keep in mind in collecting data, 'table shells' for specific arrays of data, and the potential sources of information for answering each question)
- A guide for the case study report (outline, format for the data, use and presentation of other documentation, and bibliographic information).

This case study protocol is used for this doctoral research is a revised version (Appendix II) of the "Manage Processes" project because literature review suggested the common themes within strategy processes which are of interest for the larger project. However this research is tighter in the sense that for instance does not aim to link performance with management practices or is not looking at across a variety of companies from service and manufacturing sector in different countries.

Strategy and strategic management definitions in literature suggested that (See Chapter 2 and Appendix I) some concepts such as competitive advantage, success, long term goals, external orientation, environment, policy, resources, strengths, weaknesses, opportunities and risks are commonly used themes within the strategy field. On the other hand, the literature based conceptual framework developed in Chapter 2 integrates elements in the strategy process from some authors' point of view. This conceptual framework suggests that strategy process is related to setting long term goals, analysing the environment, executing necessary change programmes and reviewing those activities periodically in the light of internal strengths, capabilities and external opportunities and threats. According to the conceptual framework, the case study protocol used for the larger project fits for this particular research aims and objectives. Therefore the case study protocol and data collected for the purposes of larger project will be used in this doctoral research.

However, the data collected in the interviews are rich qualitative data and thus might be more than needed for this doctoral research. Therefore, the researcher will modify the larger research project protocol and take out the irrelevant sections in the

case study reports. Appendix II refers the revised Case Study protocol for the purpose of this research. Data collection stages are the same with the original protocol since the rich qualitative data were collected according to the large project protocol. However, data presentation in the case study reports will differ from the original protocol because the case study reports should address the research questions for this study. The main changes in the original protocol, which will be considered during re-listening to the interviews and analysing the company documents/researcher's field notes, will guide writing-up case study reports and data presenting.

To sum up, data collection is achieved taking into account the original case study protocol and data presenting and case study reports were completed by considering the *revised case study protocol* (Appendix II). These changes as they appear in the revised protocol are as follows:

- The unit of analysis for Manage Processes project is management practices in autonomous SMEs and operational units (subsidiaries of large companies). The unit of analysis for this research is strategic initiatives (major strategic and operational initiatives with a major impact on business such as restructuring, capacity expansion, new plant opening) in independent/ autonomous, manufacturing/ production SMEs that are medium-sized (employee number of 100-150) in the UK.

- The larger research project aims to understand management practices that differentiate high performers from low performing companies, therefore asks a self assessment perceived performance scoring questionnaire to managers. This questionnaire aims to assess the company's performance relative to its sector. In this particular research, the researcher does not aim to link perceived performance with strategy processes and activities; therefore the 'Company Performance' section is ignored for this research. Consequently, this section will be taken out in case study reports. Aim of this research is clarifying strategy processes and activities in manufacturing SMEs regardless of organisational performance.

- In 'Manage Processes project' interview data could be documented as cognitive mapping or standard write-up. In this research, cognitive mapping is not used but only standard write-up of interviews is used. Mainly because cognitive mapping during interviews required experience and skills but I rather preferred to concentrate on the conversations with the interviewees via eye contact and therefore chose to write up notes and record the interviews electronically. Also a research diary was kept.

- Protocol topics, interview questions are linked with the conceptual framework and research questions. Even though in interview questions, strategy tools, methods and techniques are not mentioned in the protocol but this research question is asked during the interviews and investigated among company documents. In Sample-I interviews the researcher asked questions regarding strategy tool and method usage. On the other hand, in Sample-II companies this question was mentioned when the managers were asked how they manage their strategy and whether they employ any tools and methods which might help them in their job. However, the researcher will confirm this question once more in second round peer review process with the co-researchers having extensive knowledge about the firms for reliability purposes.

5.4 Case Study Data Collection Process

Data collection mainly based on semi-structured interviews with managers taking approximately 1-1.5 hours as well as desk research and observations. Also, during company visits I and my colleagues requested to hold a copy of supporting company documents such as organisational chart, strategy documents, meeting minutes, reports and so on. The case study reports are based on multiple source of evidence through triangulation of data by interviewing more than three people in an organisation to reach saturation. Also multiple data types such as documents, observations and interviews are also used to triangulate data. These issues will be explained further in the following sections. To sum up, the data collection activities are shown in the following figure (Figure 5.2). The modified case study protocol will guide writing up the case study reports. Also data in case study reports will be

discussed with other researchers who are involved in the interviews for ensuring construct validity. Other academics are chosen to validate the data rather than the managers because the academics have firstly extensive knowledge of the companies through consultancy and knowledge transfer partnerships. Secondly the case study reports could be seen too academic for the managers and therefore construct validation via co-researchers is considered to be more appropriate in this study.
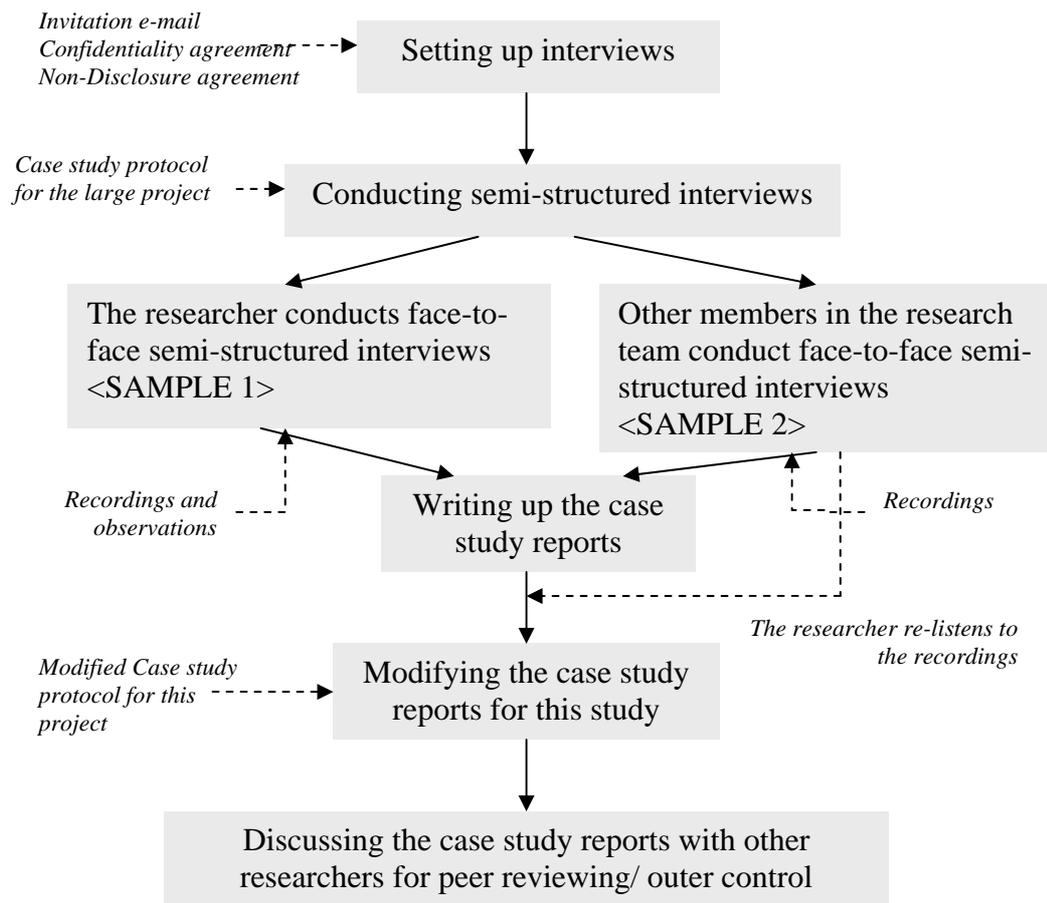
Figure 5.2. Data collection activities map

5.4.1 Collecting case study evidence

The data collected in case studies are interviews, documentation and researcher's notes and other information about the company from external sources. Also, at least three members of the organisation were interviewed for triangulation of data. This allows the researcher to triangulate data in multiple case studies. Also the researcher

is keen to assure research quality in interviews and employed three sources for evidence demonstration (Yin, 2003) in this research which are interviews, documentation and observations or archival records where possible:

- *Interviews* – Interviews are guided conversations rather than prearranged queries. "Interviews are essential sources of case study evidence because most case studies are about human affairs. Thus, the interviews should be considered verbal reports only. As such, they are subject to the common problems of bias, poor recall and poor or inaccurate articulation" (Yin, 2003, p. 92). Therefore, triangulation of data from multiple sources is very important in case studies. Triangulation of data is achieved by collecting and analysing company documentation and other field notes and observations. Also the researcher had the following skills in order to conduct the interviews fairly and reliably (Yin, 2003, p. 59):
    - Asking good questions and interpreting the answer so as engaging an interesting conversation with the interviewees.
    - Being a good listener rather than being trapped by her own preconceptions.
    - Having a good understanding of issues being studied. A comprehensive literature review and the researcher's educational background and work experience allowed ensuring this criterion.
    - Being unbiased by preconceived notions from theory.
- *Documentation* – letters and memoranda; agendas, announcements and minutes of meetings, and other written reports of events; administrative documents, proposals, reports, and internal records; formal studies or evaluations of the same site under study; newspaper clippings and other articles appearing in the mass media or in community newsletters.
- *Direct Observations* – By making a field visit to the case study site creates opportunity for direct observation (Yin, 2003). The interviews were conducted face-to-face in Sample-I companies and therefore the site visit allowed the researcher to do direct observation. In Sample-II companies, the

observations were made by the researcher's colleagues and therefore she discussed the observations with her colleagues.

- ▪ *Archival records* – Organisational records such as organisational charts and financial documents; list of relevant data; survey data; personal records were used where possible.

Data collection for drawing evidence does not merely rely on interview data. Convergence of evidence is achieved by triangulation of data from multiple sources as shown in Figure 5.3.

Semi-structured interviews with at least three members of the organisation from the management team

Electronic recordings, Case study diary

FACT

Archival Records/ Direct Observations of the researcher and other researchers

Company Documents e.g. strategy away day reports, marketing reports
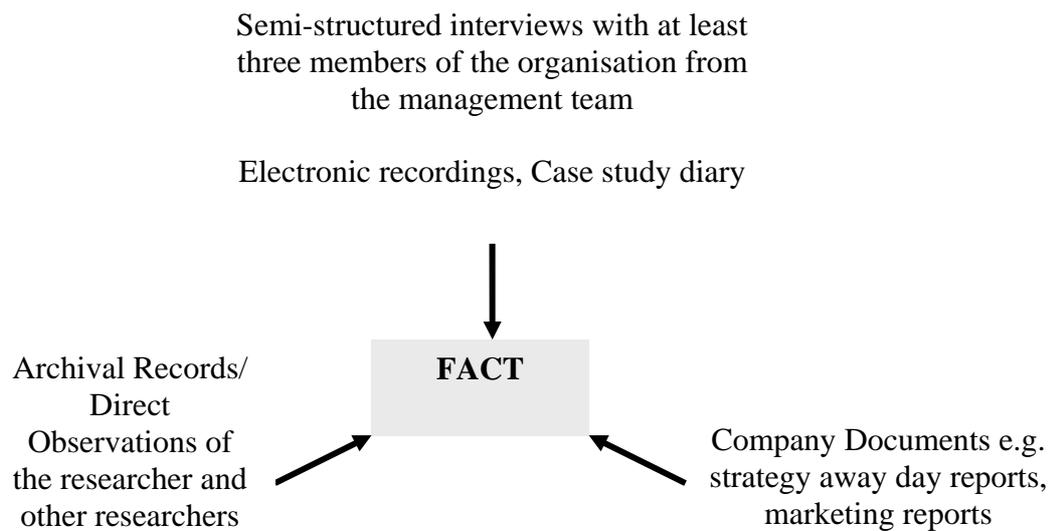
Figure 5.3. Triangulation of data in this study

5.5 Case Study Reports

In data collection stage, 15 semi-structured interviews are carried out in SMEs investigated which were electronically recorded except from in Blairs of Scotland. I did not have permission to record the interviews but I had the chance to collect a substantial amount of company documentation and archival records in this company. In companies, number of interviewees was varying 3 to 5 people from mainly senior management team. In total 15 senior managers were interviewed in four SMEs. Each interview lasted 1-1.5 hours and were very loosely structured.

Writing up case study reports allows maintaining a chain of evidence (Yin, 2003). Case study reports are also useful for identifying illustrative examples. Hence, the following section includes case study reports for companies. Case study reports

for the following companies are added to Appendix II following to the revised case study protocol.

- Appendix IIB - Blairs of Scotland
- Appendix IIC – Cemtron
- Appendix IID – Houston Co-pack
- Appendix IIE – TFC Cables

5.6 Company Profiles

Table 5.1 summarises the basic characteristics of the four case study companies meeting the selection criteria: name, location, year started, size (employee numbers), ownership and major product line. The main purpose of Table 5.1 is demonstrating facts about firms by giving company profiles in order to get prepared for detailed pattern searching through cross case analysis addressing the lines of inquiry and research questions inn Chapter 6. The next chapter will explain available qualitative data analysis techniques from a literature review and deal with cross-case qualitative data analysis across four case study companies.

5.7 Summary of Chapter 5

This chapter dealt with data collection and display issues. Data collection from four SMEs was accomplished by following a case study protocol (Appendix II) to achieve consistency across data collection. Interview data is written up in case study reports, which are based on the case study protocol (Appendix II) so as to achieve consistent and reliable data presentation. The next chapter will expand on qualitative data analysis. Firstly, within-case and cross-case data displays will be carried out. This helps exploring and describing main themes and summary statements regarding strategic activities and practices as carried out in real life context in four SMEs investigated. Coding exercise and pattern searching will be the final steps in data analysis before drawing conclusions.

Table 5.1. Case study companies: Company profiles and business facts

Company Name/ Location	Year Started	Number of Employees	Ownership	Products	Total Interviewed (total of 15 interviews)
Blairs of Scotland, Greenock, Glasgow, Scotland UK	1908	150 permanent	Independent privately owned. 1997 - The company was bought from CR Smith when the MD joined the company. Initially shareholding was CR Smith 50% and a venture capitalist 50%. Now Blairs is a parent company with 2 shareholders (Shareholder-I with 20% and Shareholder-II with 40%) and the MD with 40% share.	Doors and windows manufacturer	3 (MD; Director of Engineering and R&D; Finance/IT/HR Director)
Cemtron Ltd, Dumfermline, Scotland UK	1999	104 permanent and 86 temporary	Independent privately owned. 1999 - Ingenico, a French company, did not want to invest into manufacturing in late 1999. As a result, Arlington, a London based Investment Company in land investment, saw future in this business and invested money. This is when the MD joined the company. Bank of Scotland, the Managing Director (MD) and other two gentlemen own the company now.	Electronic Sub-contractor manufacturer	5 (MD; Business Development Manager; Financial Controller; Operations Manager; HR Manager)
Houston Co-pack Ltd, Paisley, Glasgow, Scotland UK	1995	77 permanent (+ temporary=110 in busy times)	Independent privately owned. The firm was sold to Smiths Packaging in 2000. Today Houston Co-pack is a medium-sized private company.	Provides a bonded warehouse service to the spirit industry, producing co-packing.	3 (MD; Operations Director; operations Manager)
TFC Cables, Wishaw, Motherwell, Scotland UK	1971	150 permanent	Independent privately owned. The firm is an independently owned tier one electronics contract manufacturer. There are now three owners who respectively hold the position of CEO, MD and Materials director.	1971 - TFC's initial business was in the production of specialist electrical assemblies and cable harnesses for IBM in Greenock, Glasgow. Now, they supply cabling and harnesses to electrical and electronics companies.	4 (MD; Production Manager; Quality Manager; Finance Manager)

6. FIELD WORK: Multiple-Case Study Qualitative Data Analysis and Results

In Chapter 5, I presented qualitative data collected from multiple-case studies without discussing the data analysis in depth. This chapter deals with qualitative data analysis, which is the final step before reaching closure in case study research as suggested by Eisenhardt (1989), Voss *et al.* (2002) and Yin (2003b):

- Choosing case study type *(addresses in Chapter 4)*
- Developing the research framework, constructs and questions *(addresses in Chapter 2)*
- Selecting cases *(addresses in Chapter 4)*
- Developing research instruments and protocols *(addresses in Chapter 5)*
- Entering the field *(addresses in Chapter 5)*
- Analysing data *(to be addressed in this chapter)*
- Reaching closure *(to be addressed in the final chapter)*

Analysing qualitative data is the heart of most qualitative research. Analysing evidence qualitatively is a difficult stage in multiple case study design. Firstly, there are not straight forward techniques like those used in quantitative data analysis exist in qualitative research. However, authors such as (Eisenhardt, 1989; Miles & Huberman, 1994; Yin, 2003a; Maxwell, 2005) enlightened available techniques to analyse and make sense of messy and unstructured qualitative data. Qualitative data analysis involves "data collection, data display, data reduction and drawing and verifying conclusions" and these steps happen concurrently (Miles & Huberman, 1994: 12). Some specific techniques available during these steps are "pattern matching, explanation building, time-series analysis, logic models, and cross-case synthesis" (Yin, 2003b: 109). The researchers should bear in mind that treating the evidence objectively, producing convincing conclusions, and preventing alternative interpretations are the main goals to achieve a rigorous qualitative data analysis.

The initial step in qualitative analysis is reading the interview transcripts, observation notes, or documents and/or listening to interview tapes (Maxwell, 2005). During this reading or listening, I wrote notes and memos on what I saw or hear in my data, and developed tentative ideas about categories and relationships. Categorisation of data will be achieved via coding and thematic analysis. Data collection/ presentation in case study reports format is achieved in Chapter 5. This chapter will

deal with data reduction, data display, data analysis and drawing and verifying conclusions. During this process it is very important to avoid from alternative interpretations regarding the factual nature of data. Thus, a validating procedure of the draft case study reports is an important step to achieve a high quality case study. "The procedure is to have the draft case study report reviewed not just by peers but also by the participants and informants in the case. From the methodological point of view, the corrections made through this process will enhance the accuracy of the case study, hence increasing the construct validity of the study" (Yin, 2003b: 159). Data analysis process for this study can be summarised as follows:

Figure 6.1. Data analysis process summary. Adapted from Miles & Huberman (1994)
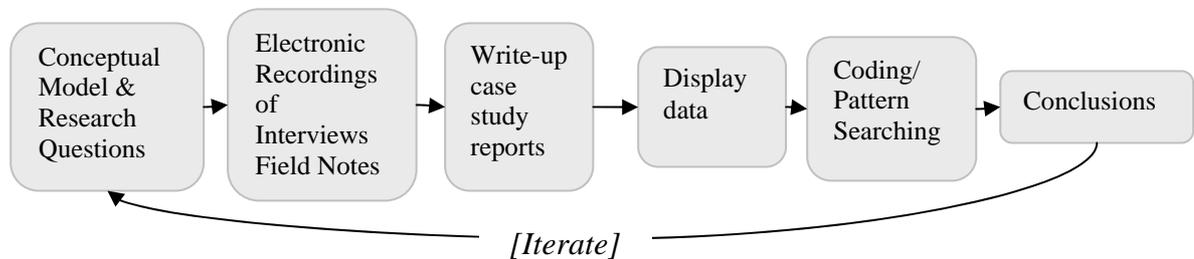
In summary, I will use two qualitative data techniques in my thesis which are *coding/ counting* via literature based taxonomy and *pattern searching* via maps.

6.1 Display Data and Coding

It is recognised that one of the dangers of qualitative research is not being able to make sense of a huge amount of unstructured data. Although qualitative research provides rich insights about phenomena being studied, because of the untidy and unstructured nature of data makes it difficult to interpret and understand. Therefore, reducing data and documentation are two means to handle qualitative data. It is meant here by displaying data to present it in a visual layout that presents information systematically so as the researcher could depict conclusions. In this study, case study reports (see Appendix III) documented the data in a consistent and coherent format so as the researcher can extract data across case studies. This step in data analysis as suggested by Miles & Huberman (1994) creates a text to work on. Then reduction of data takes place. Repackaging and aggregating data is done through identifying themes and trends in the data overall.

The major categorising technique in qualitative research is coding (Maxwell, 2005). Coding exercise allows the researcher to condense data into categories (Glaser & Strauss, 1967; Miles & Huberman, 1994; Davies *et al.*, 2003; Maxwell, 2005). In qualitative research, the aim of coding is not to add up things merely, but to break the data and rearrange them into categories that assist comparison between things in the same category and that aid in the development of more abstract theoretical concepts (Maxwell, 2005). This categorisation helps spot patterns of data that leads theory development (Eisenhardt & Graebner, 2007). Miles & Huberman (1994) suggest three methods for creating taxonomies that enable coding:

1. Codes derived from the conceptual framework and the research questions of the study

2. Codes and the taxonomy are developed from data. This is a commonly used method in grounded approach.

3. Creating codes at a general level and then letting codes emerge inductively. This method a middle method between the above two.

The categorisation involve three different type of categories that are ***"organisational, substantive and theoretical"*** (Maxwel, 2005: 97) Organisational categories are broad areas of issues that you establish prior to your interviews or observations. I used the conceptual framework (Figure 2.4) I developed in Chapter 2 in order to create my organisational categories in my qualitative data analysis. As pointed out by Miles & Huberman (1994: 55) the researcher can be trapped and overloaded with data. To avoid this overload, "conceptual frameworks and research questions are the best defence against overload". This also allows the researcher to link the key components of the study with data at an early stage. The later task requires substantive categories that are mainly descriptive and theoretical categories which transforms the coded data into a more general abstract framework. In this chapter I will try to address those categorisations and particularly substantive and theoretical categories will facilitate a sound basis for developing my conclusions in Chapter 7.

6.1.1 Unit of analysis

Strategic initiatives and decisions as the unit of analysis represent what the company are striving to achieve. Chakravarthy, Mueller-Stewens, Lorange, & Lechner (2003) suggest that strategic initiatives are easier to observe and therefore

considering them as the unit of analysis provides deeper insights rather than taking into account organisations as the unit of analysis. The researcher derived the relevant initiatives from interviews and case study reports. Strategic initiatives appear to be major strategic choices and decisions either planned or emergent and may be operational in nature with a major impact in the organisation. The researcher noted down these strategic initiatives for each case study company as they were mentioned by managers several times to shape conversations during interviews. It is noteworthy that multiple sources of evidence through interviewing three or more managers enabled the researcher to draw those strategic initiatives and triangulate the data in a reliable manner.

6.1.2 Taxonomy and coding book

Taxonomy is a useful typology with multiple levels of concepts and higher levels are inclusive of lower levels (Spradley, 1980). The researcher employs the conceptual framework (Figure 2.4) developed from the literature as taxonomy to code the qualitative data. Figure 6.1 presents the taxonomy used when coding the data. The taxonomy consists of three phases i.e. Formulation, Implementation and Review & Control as representing the strategy process. Each phase has hierarchical levels comprising strategic activities. The researcher also used 'Strategy process framework' (Table 2.4) as a *Coding Book* which is deduced from literature in Chapter 2 when coding the data against the conceptual framework. The coding book explained the phases and activities within the strategy process and ensured a reliable and repeatable data coding to prevent idiosyncratic interpretations.

In the next section the researcher will explore main themes from the summary statements from the interviews. Then, the statements will be coded at Level 1 in the taxonomy (i.e. strategy phases) in the light of main themes. Secondly, the researcher will code data at Level 2 (i.e. strategic activities). The coding exercise will be carried out by referring to Coding Book (Table 2.4) in order to avoid alternative data interpretations.

Table 6.1. Strategy process conceptual framework based on theory (taxonomy)

Item number	Item
	Formulation Phase
SA1	Analyse the external environment
SA2	Analyse company core competencies, capabilities
SA3	Evaluate opportunities
SA4	Strategic choice
SA5	Define grand strategy and goals
SA6	Define short-term objectives and action plans
	Implementation Phase
SA7	Execute strategy
SA8	Allocate resources
SA9	Planning and budgeting
SA10	Workforce alignment
SA11	Institutionalising strategy
SA12	Communicate strategy
SA13	Embed strategy
SA14	Manage strategic change
	Review & Control Phase
SA15	Gather feedback from strategic activities
SA16	Revise strategy
SA17	Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required

Note: SA represents 'Strategic Activity'

6.2 Within-Case Displays

Displaying data is meant to illustrate and visualise information and evidence gathered from case studies so as to draw explanations and predictions towards conclusions. As it is expressed in Miles & Huberman (1994) data displays comprise of exploring, describing and then explaining and predicting themes and patterns. However these research activities are carried out concurrently in a coherent way. The following two sections clarify exploration and explanation stages in data analysis followed by application on four case studies in this research.

6.2.1 Within-Case exploring and describing

In order to build a 'ladder of abstraction' from data for further insights, it is offered in Carney (1990) cited in Miles & Huberman (1994: 91) that "you begin with a text, trying out coding categorises on it, then moving to identify themes and trends, and then to testing hunches and findings, aiming first to delineate the deep structure and then to integrate the data into an explanatory framework". Thus, I will code the data against the taxonomy (Table 6.1) developed in Chapter 2 in order to find organisational categories. First, I will extract strategic initiatives as the unit of

analysis from my field notes and interview recordings and case study reports then to find activities associated with those plans. This stage in data analysis helps exploring and describing data. The coding tables (Appendix IIIA, B, C and D) focus on themes in particular, concentrating on key issues and the facts as mentioned in interviews. The interpretation of summary statements is then identified by three comments:

- Level of researcher's understanding throughout the company, interview recordings and case study reports

- Matching the strategic activities in the conceptual framework e.g. analysing the environment etc.

- Validation of researcher's interpretations and findings with co-researchers who worked with the company extensively and/or participated the interviews

6.2.2 Within-Case explaining and predicting

This section aims to provide preliminary conclusions about what is happening in the case. As Miles & Huberman (1994: 91) suggests "it is hard to explain something satisfactorily until you understand just what the something is". A usual development as suggested by Rein & Schon (1977) cited in Miles & Huberman (1994: 91) "is from telling a story about a specific situation (what happened, and then what happened?), to constructing a map (formalising the elements of the story, locating key variables) to build a theory or model (how they influence each other)." This approach leads constructing a *process-oriented* richer story about the case. Thus, data display and within case analysis here describes a logical chain of within case evidence around strategy stories associated with strategic initiatives and implementation plans in the investigated four SMEs. The maps and researcher's interpretations will then be validated by co-researchers who worked with the company extensively and/or participated to interviews to ensure outer control.

6.2.2.1 Thematic based interpretation and Counting

In qualitative research, numbers are inclined to get disregarded. When a theme or a pattern is discover, some elements are isolated that are occurring several times and consistently happen in a specific way. The number of times and consistency verdicts are based on counting (Miles & Huberman, 1994). So in qualitative research, frequencies and counting seem to be appropriate tactics to identify significant, important and recurrent activities in strategy-process in manufacturing SMEs.

Writing this section for each case study to some extent reduces the overview gained through seeing the structure (inter-linkages) between themes and their supporting material. As such this coherency which well constitutes a greater part of the strategy process is reduced. This section focuses on themes in particular, concentrating on key issues the "facts" which is followed by two comments i.e. level of understanding and appreciation throughout the company and match the concepts derived from the conceptual framework for the strategy process as developed from a review of literature.

6.2.2.2 Thematic based interpretation and Mapping

Langley (1999) has unearthed two ways of explaining strategic issues. First, *variance theory* explains a set of attributes of environment, leadership, decision processes and performance which yields extent of strategic issues. Variance theory explores relationships between dependent and independent variables. Second, ***process theory*** explains strategies through a process of events, activities and choices. Process theory tries to develop an understanding into patterns of events rather than variables. Events are more ambiguous than variables and therefore should be 'conceptualised' in order to discover patterns among them.

As a result of the above requirements, the researcher used maps called *conceptually ordered networks* (Miles & Huberman, 1994) comprising nodes connected by links in this study. The nodes are short summary statements of strategic activities or decisions, and the links or lines have the meaning of 'is leading to.' The format for the map is built from the conceptual framework and the learning from the relevant literature. The map includes four layers of concepts i.e. planned strategic decisions, emergent or opportunistic strategic decisions representing strategic initiatives followed by actions and implementation plans and finally outcomes formalising the elements of the strategic story about the company. The map is produced from the data coding table for each company as well as case study reports and arranged coherently to allow careful comparison of differences and noting down of patterns and themes.

The purpose of conceptually ordered maps is to capture inter-linkages between themes and their supporting material. As such this coherency which well constitutes a greater part of the strategy process in SME context is reduced. Moreover, the idea behind drawing and validating conceptually ordered maps is 'pattern matching' across

multiple in-depth cases (Yin, 2003b) aiming to test out strategy process theory in SME context. In this research, the general research question is about strategy management *processes* in SMEs, and more specific questions about the interaction between strategic initiatives either planned or emergent and implementation and action plans regarding strategic activities in SME context. So here there is a priori idea of a possible emergent or planned strategic decision or initiative. Then, during data analysis the researcher aims to understand possible relationships between strategic initiatives and implementation activities and others. For the cell entries on the maps, the researcher used short summary statements reduced from the coded chunks on coding tables as well as referring back to case study reports to explore interrelations of how elements in strategy process fit together.

To sum, even though strategy process literature is vast, there are calls to pursue process research that will unfold organisational episodes at more than a shallow level. Langley (1999) suggests that 'visual maps' are an advantageous way of making sense of rich process data. They provide simplicity, generality and accuracy over challenging process data. Therefore, the themes and summary statements will be mapped for each case by using "conceptually ordered displays" using networks with nodes connected by links (Miles & Huberman, 1994: 127) to visualise the planned or emergent behaviour of each case in the strategy process. Then some initial understandings and conclusions for the research questions at hand from each case will be explained and predicted by writing up within case analysis texts giving strategic storylines of the companies.

In the following sections coding and mapping exercise will be performed for each case studies. The detailed analysis can be found in the relevant Appendices, only the results will be presented in this chapter.

6.3 Blairs of Scotland

Blairs is one of UK's leading designers and manufacturers of timber frame windows and doors in construction sector. It is based in Greenock, Scotland since 1908. Blairs has 35% market share dominantly in Scotland and 1% in England. They have saturated the Scottish market and they see themselves in English market as a niche/gap player. Blairs of Scotland has 150 permanent full-time employees.

Blairs's strategy management activities can be divided into two distinct periods; before and after 1997 that interviewees expressed that the Company strategy was shaped in that era when the new MD took up his position.

6.3.1 Pre-1997: before the new MD was appointed

With the previous owners there was no strategy, a new ERP system was causing chaos and the external auditors had abandoned the audit. Records were so poor that it took a month to produce management accounts. Finished goods had nil value. There were large overdue loans, a large overdraft and there was an urgent need to put things in control before reinvestment, capital development and self-generation of the business. A £600K extension to the overdraft was obtained and the company was technically insolvent. The bank supported the business for three years before becoming solvent again. They appointed a chairman and CR Smith, previous owner; put a new MD into the business. As a result, the main action taken initially was to manage cash flow to turn business around.

In 1997 the company was losing £1million a year and had no vision and the company was in a difficult situation and the current finance director was the 4th financial controller in last two years. The company did not focus on customers and did not know what was wanted in the market. The company decisions were based on anecdote and the complete system was not working. Before 1997, there was no clear vision in the company and the company philosophy was to *fix it when it is broken*.

6.3.2 Post-1997: after the new MD was appointed

In 1997, the new MD, Owen Quinn, took his position and a series of changes happened in the company. As a result, when the business was losing £1 million a year, in one year the break-even was achieved and the business started to improve its market share and turnover since then. The business regenerated itself in 1997 after a series of strategies and related processes associated with the continuity of the business and high performance. When the firm was losing £1 million a year, they managed to turn around the business and a series of achievements followed later. Capacity in 2003 was 27,000 units but the company was selling 30,000 units, and rejecting an estimated 10,000 units. Blairs lift capacity to 40,000 units per annum through engaging a set of strategic activities (for instance, implementing Quick Response Manufacturing), increasing revenue by 31% from £8.6m per annum to £11.3m per annum and

profitability by 163% from £133k to £350k per annum. Blairs has embarked upon a major investment plan, in three stages, through to Easter 2005, which will result in the doubling of the company's installed manufacturing capacity to 60,000 windows and doors, per annum. The first stage of the programme was unveiled in January 2003 when local MSP Duncan McNeil, Chief Government Whip to the Scottish Parliament, visited Blairs of Scotland, to "cut the ribbon" and start production on two new high tech production machines. In 2006 when the interviews were carried out, the company managed to increase its value added productivity growth from 44K per head to 80K.

The following section explains the strategic initiatives and changes which took place in Blairs since 1997. Full company report can be found in Appendix IIB.

6.3.3 Strategic initiatives (Unit of Analysis)

The strategic initiatives as unit of analysis listed below reflect the period after 1997. The following bullet points summarise strategic initiatives that the Company is trying to achieve and these decisions and initiatives will be considered as the unit of analysis for this study. The major strategic initiatives are associated with regenerating business, new market entry, improvements in production areas and attracting high quality workforce. Blairs strategic initiatives and decisions are as follows:

- *Business 'turn around' in 1997*

- *Remove waste in system and making production processes more efficient*
- *Introduction of new product lines*
- *Reduce inefficiency in tendering process*
- *Focus on market penetration strategy in South-East England, London area*
- *Sell a wider range of products in relatively high volumes in make to order environment (bespoke products business model)*
- *Installation of a range of new equipment to keep up with demand and to increase manufacturing capacity*
- *Employ outstanding people and offering a world class rewards and benefits package*
- *Implement QRM (Quick Response Manufacturing) to cope with wide range of products and demand variations.*

6.3.4 Coding

Taking above strategic initiatives representing what the company was striving to achieve in order to cope with problems they were facing, I derived summary statements about what the company did so as to realise those objectives and initiatives. Appendix IIIA demonstrates the summary statements which will help reduce data in order to find organisational categories. To achieve this, I mapped

company practices on the literature based conceptual model/ taxonomy (Table 6.1). The coding table for Blairs can be found in Appendix IIIA.

6.3.4.1 Coding result for Blairs of Scotland

The researcher conducted a content analysis of the summary statements in Blairs coding table (Appendix IIIA), totalled them and derived in Appendix IV to see most frequently *mentioned* strategic activities during the interviews. The table in Appendix IV summarises the frequency of activities as they are interpreted by the researcher against the conceptual framework/ taxonomy. I will show the results from data coding exercise here and I will compare them across four cases in later sections for deriving substantive and theoretical categories and patterns in the strategy process in manufacturing SMEs.

Firstly, I discovered 65 summary statements from the case study reports and interviews, and then I looked at summary statement and interpreted emerging main themes and elements. For example;

> *Blairs appointed a new production director to give more time to the engineering director so he could spend more time on putting new products and processes in to the factory.*
> *Interviews, 2006*

Secondly, I interpreted this summary statement derived from the case study report and considered that the main theme within this company practice was *human resources*.

Then, I coded the summary statements in the light of emerging themes according to the deductive taxonomy (Table 6.1). I ended up with 65 summary statements mapping on the three phases of strategy process and **68 strategic activities** as carried out in Blairs. Table 6.2 shows an example from the coding exercise for Blairs of Scotland:

Table 6.2. Example of coding table for Blairs of Scotland

Summary statements – Blairs	Main Themes and Elements	Strategy Process Phase (Total of 65)	Strategic activity (Total of 68)	Strategy Tools/ Methods Used
Market research was conducted by an external market research company. This company carried out a survey to understand the market needs and the perception about Blairs.	Market research	Formulation	Analyse external environment	Market research/ survey
Plot the industry cycle to follow demand because the business is weather dependant.	Analysing the environment	Formulation	Analyse external environment	Industry cycle plots
Sales statistics are discussed in monthly board meetings.	Sales reviews	Review and Control	Gather feedback from strategic actions	

Appendix IIIA also demonstrates the strategy tools, methods and techniques used within those activities. I saw that in total twelve times strategy tools and methods were used in the company when carrying out the related strategic activity. I can conclude that in Blairs the strategy tools and methods used are Vision/ mission statements (mentioned once); market research/ survey (mentioned once); industry cycle plots (mentioned once); capabilities maturity model (mentioned once); project management (mentioned once); benchmarking (mentioned three times); six box approach (mentioned once); Key Performance Indicators (mentioned twice); SWOT (mentioned once) and finally pricing analysis (mentioned once). Also, within-case analysis revealed that at:

- **Process phase level** 32% of activities mentioned in the interviews is associated with strategy formulation; 54% of activities were related to strategy implementation and 14% of the activities were associated with strategy review and control phases.

- **Activity level** In Blairs *executing strategy* and *analysing the external environment* activities are the *key* activities which were mentioned most frequently (representing 33.8% of what the company is doing to realise its strategic decisions and initiatives). Thus I conclude that Blairs put more emphasis on the following activities:

Greater than 10% - Executing strategy and analysing the external environment mainly because Blairs was trying to penetrate to the English

market and therefore keeping an eye on market forces was a priority in the company.

Greater than 5% - Defining grand strategy and goals; institutionalising the strategy; gathering feedback from the strategic actions; workforce alignment and communication. Above activities represent 67.6% of activities in Blairs as mentioned in the interviews.
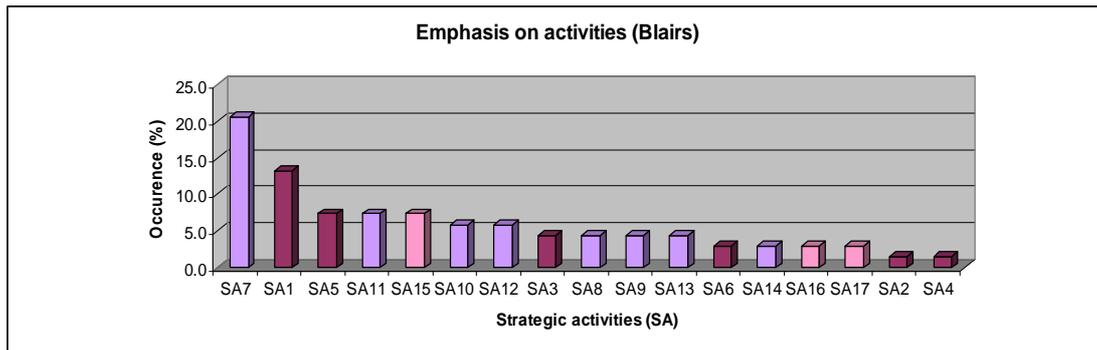
Figure 6.2. Emphasis on activities[1] in Blairs

In the interviews managers used some quotes that I interpret their language in the strategy process emphasising the important themes. Some examples are:

"from thought to finish" which I interpret strategy formulation to implementation.

"the corporate plan does not sit in the bottom drawer, the reports are produced to run the business professionally not to impress senior managers" which I interpret that strategy has a planned aspect and used in published documents.

"the answer is yes now what is the question?" which I interpret the aim of company to be ready to strategic change, flexibility and similar outcomes.

'the trick is to stay flexible but stop yourself being diverted once you have been decisive" which I interpret that the company philosophy and focus of strategy process to stay flexible. This is also evidenced in case study reports that Blairs do not have product catalogues because their strategy is being flexible and offering a wide range of products in relatively high volumes.

Interviews, 2006

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[1] Note: lavender colour represents implementation phase; violet represents formulation phase and pink represents review and control phase

Now, I shall identify patterns and themes by using conceptually ordered maps (Miles & Huberman, 1994) in order to find out associations between summary statements and to see how they fit together in the following section. There is large amount of qualitative data; therefore I shall use Maxwell (2005) approach of organisational, substantive and theoretical categories on the conceptually ordered maps (Miles and Huberman, 1994). I organised the data in the following map and then grouped them by theme and explained them in Section 6.3.6 the researcher's interpretations. The emergent themes reflect the relevant areas in the map demonstrating the main subject matter around decisions, activities and outcomes.

6.3.5 Blairs of Scotland conceptually ordered map
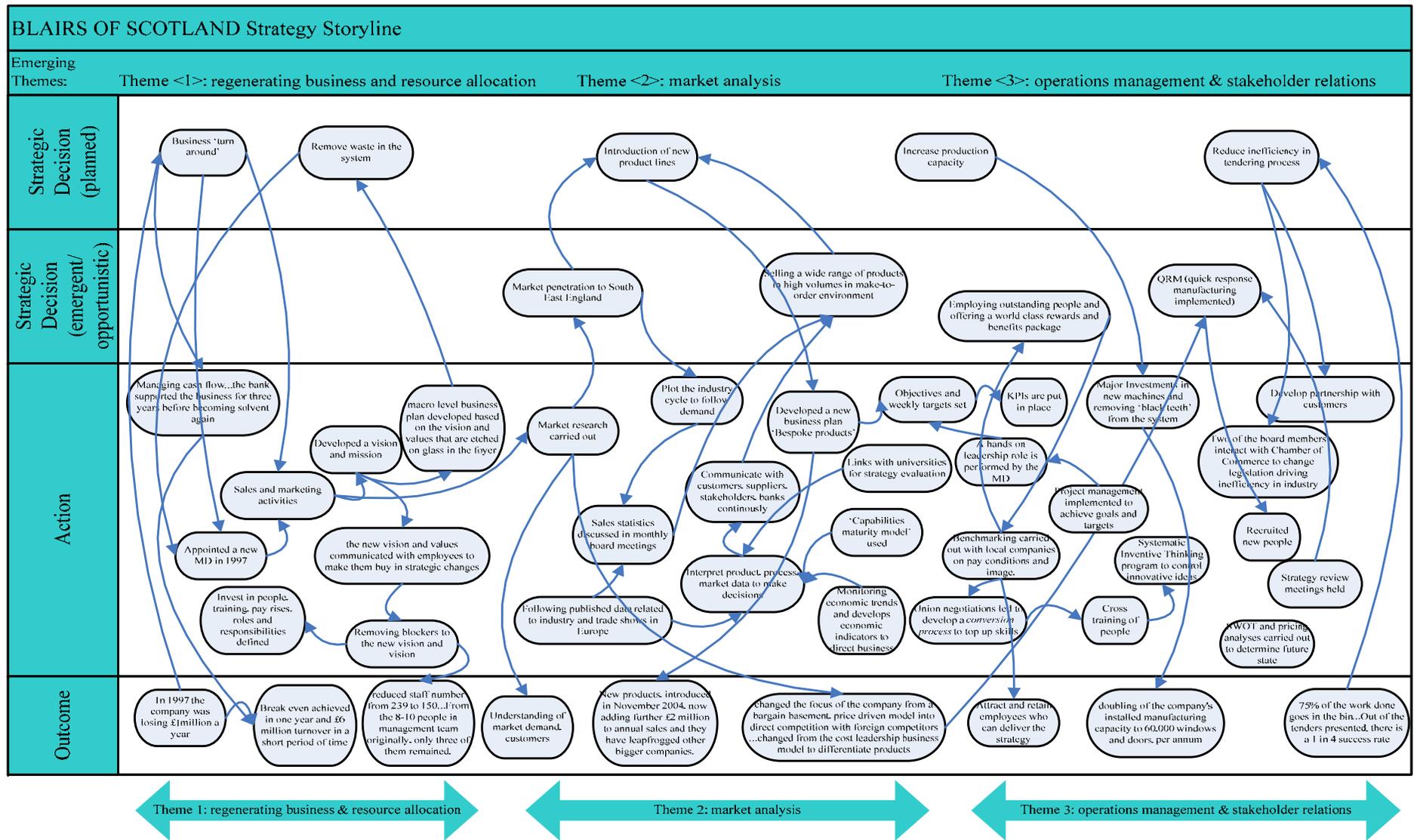
6.3.6 Researcher's interpretations

Regenerating the business and resource allocation

Financial resources as well as human resources were critical to the business turn around in 1997s. The overdraft was extended and since then Blairs appointed an employee to deal with maintaining good relations with the lenders. The Financial Director stated that they report back the business results and predictions for the subsequent year to the banks. The key is actually doing what you promise. Also the MD stated in the interview that:

> *He removed the blockers to the new vision to keep like-minded people in the organisation so as to create a shared vision. He went to the shop floor demonstrating a hands-on approach and asked staff to describe their job. He realised that the staff were describing only their function without seeing how their job was contributing to the whole system. Then he categorised the employees into three groups: warriors, terrorists and passivists (having neither negative nor positive impact to the organisational performance). He kept the warriors and some of the passivist and removed the terrorists who resisted the changes necessary and did not contribute to the business greatly.*
> *Interviews, 2006*

Staff number was reduced from 239 to 150. Only three out of 8-10 people in management team bought in the MD's vision and the rest of the managers left the company. Since then the company is recruiting employees who can deliver the company strategy and share the vision, mission and values.

Opportunity seeking and market analysis

The managers said that foreseeing, monitoring, assessing and enacting with the external environment enabled them to stay ahead of the competition in Scottish market with 35% market share. However the company kept on seeking opportunities for sustainable performance and therefore made a strategic choice to penetrate English market. The company conducted an extensive market research and they came up with an emergent strategy into selling a wide range of products in relatively high volumes. The market research has led the firm understand the end customers and successfully enter a new market. Before the market analysis it was obvious to top management that architects and contractors were the customers. However, they found that the customers were also maintenance managers and development managers and they

noticed that they were selling a project rather than a product merely. The MD explained in the interviews how they did market research:

He got his son who was doing his MSc degree in Marketing Department at the University of Strathclyde to do a Market Research Project for the company. He wanted to find out how the company was perceived and what the market was buying and where. Also, a large market research company based in London, called MRUK, is used to do the market analysis. This survey looked into the size of housing market, specification setting and contracts, lifespan of windows and doors, budgets, decision making and partnerships, types of materials used, competitors, knowledge and purchasing information from manufacturers, key qualities required from a manufacturer and so on.

Interviews, 2006

A focus on operational effectiveness and efficiency

Another important finding was that the company saw an opportunity in the environment in bespoke windows market and executed this strategy in the company via engaging with a series of projects. For example, the key performance indicator attached to the new strategy was lead times – achieving wide range of products in relatively high volumes. The objective of supplying a wide range of window options but in high volumes made it difficult to cope with demand variation. Consequently, the company used its network relations and got help from Strathclyde University to implement a new manufacturing platform and production planning system. Implementing QRM (Quick Response Manufacturing) allowed a more flexible, responsive and cost effective approach by expanding production, growing and sustaining the business while meeting unpredictable market demand. It was an important step in QRM implementation to exhibit the foresight to seek expert input, put trust in others' judgment to drive the organisation to excel in operational processes. As the MD says *'the trick is staying flexible but stopping yourself being diverted once you have been decisive'*.

Another interesting finding was the involvement of the managers' in prompting to change industry regulations regarding elimination of waste and inefficiency in tendering process in construction sector. To achieve this, the management team is taking a proactive role and is involved in the Chamber of Commerce to get the industry deregulated. The managers in the company stated that:

The company experienced a big turn around when the current MD, Owen Quinn, came along. The MD worked previously in automobile industry before coming to Blairs and he described the building sector as being crazy and operating quite differently. Out of the tenders presented, there is a 1 in 4 success rate. This means that 75% of the work done goes in the bin. A billion dollar building may have 10 people invited to quote and it is 90% inefficient and then the second level again is 90% inefficient. Blairs is trying to cope with this challenge by developing partnerships with customers. This is not easy because there is no investment in the supply side in the sector. Two board members are in the Chamber of Commerce trying to change legislation driving the inefficiency in the industry.

Interviews, 2006

Strategy tool, methods and techniques adoption

The company employed a number of strategy tools when decision making and execution. For example,

Vision/ mission statements, goals and objectives direct the communication of company objectives and values and are attached on glass in foyer.

The starting aims for Blairs were:

- *To develop a highly profitable debt-free business*
- *To be an indispensable partner to their customers and suppliers*
- *To recruit and develop an outstanding generation of employees (60% of employees have degrees now)*
- *To establish a world class rewards and benefits package*
- *To be one of the UK's best companies*

Now, the new business model is decomposed into the following objectives:

- *Develop an outstanding generation of employees*
- *Invest to the community*
  - *The investment strategy does not stop at people only; the company is in the middle of £2 million regeneration of their factory, which will enable them to safeguard the jobs of over 150 people in Scotland.*
  - *The company employs the majority of its workforce from Greenock area. They see themselves as part and parcel of the local community. In spite of the fact that they are in an age of global*

outsourcing and geographic disparity, the firm believes its strengths coming from the community roots.

- *High volume production*
  - *Monthly Sales order intake charts, Production output values per month along with forward forecasts; pricing trends are used as data and tools.*
- *Health and safety*
  - *Monthly accidents reports are used as data.*
- *Committed to the environment*
  - *Environmental waste maps along with Reduce, Recycle, and Dispose, Reuse strategies for each item. (e.g. item category: timber, strategy: reduce, tool: housekeeping, description: tidy factory, time, impact and action matrixes are used)*

Interviews, 2006

Market research/survey, industry cycle plots, capabilities maturity model (The Institute of Chartered Accountants) and benchmarking are other strategy tools used in decision making processes. For example, the firm used benchmarking when purchasing a new MIS system and before reorganising salaries and benefits for staff. Capabilities maturity model is used by the Finance Director to understand company capabilities so as to make strategic choices. Besides, KPIs (Key performance indicators) are in place in result of negotiations and discussions in the organisation and set to check how the company is doing against objectives and targets. Also, six box approach, downtime analysis, capacity utilisation, process mapping, root cause analysis, ISO9001/ 14001 and project management are the tools and methods used in production strategy (company documents available).

As a result, '*From thought to finish'* has been Blairs's philosophy since 1997. Although they achieved a considerable success in Scottish market; they keep regenerating themselves via strategic changes and as a result have been enjoying success in local market as well as continuing to grow in the new market.

I can conclude that regenerating business and resource allocation, market analysis and operational excellence are key focuses of Blairs' strategy process (Section 6.3.5). When I look at the direction of the arrows between decisions and actions there is a balanced number of arrows representing **top-down** (10 arrows) and **bottom-up** (11 arrows) approach to strategy. I can conclude that Blairs approach to

strategy has both emergent and planned aspects. I can conclude that strategy process appears to be dependant on individuals such as the Managing Director (MD) and his employees' commitment. Managers all play an active 'hands on' role by ***holding multiple functions*** to run the business (see Table 5.1 Case study company profiles). Thus, he seeks to employ good quality people (see company objectives). This might imply that strategy process is intuitive in Blairs. However I believe that strategy process also shows some characteristics towards being more defined in company documents and institutionalised through communicating values and mission.

Finally, the quality of within case analysis and interpretation of results are ensured by verifying the findings with co-researchers who have extensive knowledge about the case study company. So, I sent each co-researcher a form to fill in as shown in Appendix V (adapted from Miles and Huberman, 1994). The Appendix VA reflects the responses from Trevor Turner on Blairs. Trevor worked with Blairs over years via student projects, student placements, consultancy as well as KTP (Knowledge Transfer Partnerships) programs. In summary the maps are found to be reflecting the case objectively. Trevor also added some missing points on my interpretations and I considered them in my cross case analysis as well as in within-case analysis here.

6.4 Cemtron

Cemtron is providing electronic assembly as well as product building and testing as a sub-contractor to electronics industry. The company has been expanding its business to Far East i.e. China, Taiwan and Hong Kong by opening new offices and shifting total assembly and testing to those places while managing supply chain from the UK. The business needed more investment in the late 1999s. Ingenico, a French company, did not want to invest into manufacturing those years. ICM, another potential investor, did not put money for some reason either. As a result, Arlington, a London based company in land investment, had seen future and invested in the business. This is when the MD, Paul Brown, joined the company. It is a privately owned independent company. Currently, Bank of Scotland, the Managing Director and another two gentlemen own the company. In 2006 when the interviews were carried out, Cemtron had one big customer called Ingenico – Chip and Pin Security Systems. Approximately 85-90% of the turnover was realised via this customer's big 'one-off' order in 2005.

6.4.1 Strategic initiatives

Cemtron's strategy management activities can be divided into two distinct periods; before and after 1999 that interviewees expressed that the company changed ownership and the MD was appointed in that era. The strategic initiatives listed below reflect the period after 1999.

Cemtron strategic activities are mainly associated with new business development overseas, maintaining good customer relations, service providing and improving internal communication. The following bullet points summarise the strategic initiatives that Cemtron is employing:

- *Induction of NPI (New Product Inception/ Introduction) programme in order to establish long term customer relationships (golden-cuff effect) before targeting volume*
- *Developing business in China and shifting manufacturing and assembly to Far East*
- *Moving from being a sole manufacturer to a service provider regarding logistics and warehousing which are deemed to be higher value businesses in the UK*
- *Reducing dependency to one major customer and instead diversification of the customer base*
- *Developing and implementing an Internal Communication Process*

6.4.2 Coding

Appendix IIIB shows a summary of summary statements and the coding of them according to the conceptual framework/ taxonomy (Table 6.1). I derived 43 summary statements from Cemtron case study reports which helped me derive strategic activities and themes around the strategy process in Cemtron. I mapped those summary statements against the taxonomy and ended up with 44 items at strategy process phase level and 47 items at activity level (see Appendix IV).

6.4.2.1 Coding result for Cemtron

When I looked at the percentages and it turns out that at Cemtron 17% of summary statements mentioned executing strategy; 14.9% talked about allocating human and financial resources; 10.6% pointed out planning and budgeting activities; and 17.0% mentioned about institutionalising strategy activities which form the four key activities representing mentioned in summary statements table in Appendix IIIB. Also, within-case analysis (Appendix IV) revealed that at:

- **Process phase level** 29% of those 47 activities were associated with formulation phase; 57% were related to implementation phase and finally 14% of those activities were associated with review and control phase within the strategy process.

- **Activity level** In Cemtron *executing strategy* and *planning and budgeting* activities are the *key* activities which were mentioned most frequently (representing 27.66% of what the company is doing to realise its strategic decisions and initiatives). Thus I conclude that Cemtron put more emphasis on the following activities:

Greater than 10% - Executing strategy and planning and budgeting (implementation phase)

Greater than 5% - Communication; Managing strategic change; Gathering feedback from strategic actions; Analysing the external environment; Evaluating opportunities; Defining grand strategy and goals; Defining short term targets and actions plans; Embedding strategy. Above activities comprises of 85.11% of what the company is doing as mentioned in the interviews.
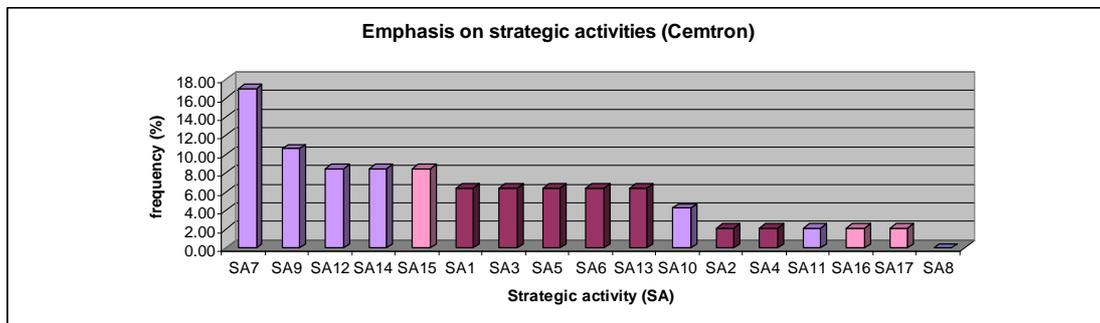
Figure 6.3. Emphasis on activities[2] in Cemtron

I conclude that in Cemtron a greater emphasis is put on implementation phase of the strategy process. The key activities are mainly within implementation phase. Now, the following section will identify patterns and themes by using conceptually ordered maps (Miles & Huberman, 1994) in order to find out inter-linkages between summary statements and to see how they fit together.

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[2] Note: lavender colour represents implementation phase; violet represents formulation phase and pink represents review and control phase

6.4.3 Cemtron conceptually ordered map

CEMTRON Strategy Storyline

Emerging Themes: Theme <1>: regenerating business Theme <2>: customer relations and operational sustainability Theme <3>: opportunity seeking and finding new customers Theme <4>: internal communication and training

Strategic Decision (planned)

- Business 'turn around' in 1999
- Developing business shifting manufacturing/ assembly to Far East and China
- Introduction of NPI (new product introduction/inception) programme to establish long term customer relations
- Diversification of customer base
- Moving from being a sole manufacturer to a service provider regarding logistics and warehousing

Strategic Decision (emergent/ opportunistic)

- A London based company in land investment, had seen future and invested in the business
- Develop long term open customer relations
- Develop and implement an internal communication strategy

Action

- Developing an exit plan to recover from the loss under previous ownership
- MD delegated his responsibilities to his management team to develop business in China
- Involving customer's product design and product introduction
- Having open communication with customers
- Having cost meetings with customers to share cost ownership and sharing earnings
- Managing cash effectively
- Carried out customer surveys for feedback on service level provided
- Developed a training strategy
- KPIs and company targets are communicated on notice boards on the shop floor
- MD and other investors are seeking opportunities
- Implementing a trust based management style rather than umbrella style.
- open book pricing and warehouse is shared with customers
- Reacting changes quickly
- Draw a yearly financial plan
- Temporary human resources overtimes are planned
- Gathering feedback from staff questionnairs
- Developed personal development plans/ succession plans for managers
- Mission statement developed
- Carried out what if scenarios and risk analysis counting in 25 years experience in industry
- Cultural and management style changes took place
- cause analysis carried out for stock management
- 3 month rolling forecasting
- Forecasting scenario planning
- Checking sales, revenue, capacity, stock and profit
- KPIs checked monthly
- A series of courses in managing results, leadership, customer retention and quality planned
- Business targets set for growth
- Business trends and global environment is monitored
- looked into managerial skills needed to develop the business (i.e. new customers, new value streams).
- 5S implemented
- 9 am daily management meetings are held to discuss and review business results and cash flow
- Departmental performance measured via balanced score card
- Organisational performance measured
- Customer satisfaction surveys carried out
- Implement changes
- implemented 'change leadership program' from cross functional teams to come up with new ideas and to reduce resistance to change

Outcome

- The business was insolvent and losing money under previous venture capital ownership
- the value of the business is targeted to change from £16M to £61M
- 85-90% of the turnover realised via this customer's big 'one-off' order in 2005
- Business generated from other customers rose to £2.8M in 2005 from £1.7M in 2004...aiming to achieve less than 30%-turnover dependant to this big customer next few years
- Developed unique capabilities in customer relations, providing one stop service for supply chain needs

Theme 1: regenerating business Theme 2: customer relations & operational sustainability Theme 3: opportunity seeking & finding new customers Theme 4: internal communication & training

6.4.4 Researcher's interpretations

Cemtron is an autonomous sub-contractor SME to electronics industry. Actual operation of the company commenced in 1999s when an ownership change took place. The company strategy shaped after this period because previously a venture capital owned the firm and targets were simply set for them. The MD said that:

> *The firm is located to Scotland to be able to attract well educated people to the business as successful students preferred to work in the city in London area.*
> *Interviews, 2006*

Cemtron especially focuses on financial targets, growth, open customer relations, communication with shop floor staff and personal development plans for managers. The following are summarising the qualitative data I organised into themes by adapting Maxwell (2005) approach:

Regenerating the business

When the business was losing money under previous ownership, an opportunity came along and a London based investor had seen future in the business and invested in the business. The MD highlighted in the interviews that the business is seeking opportunities in the global business environment since then and said that:

> *Even though we have a good order book from our major customer, we are seeking to diversify our customer base and expand the business to service oriented activities such as warehousing and transportation to become a one-stop shopping experience for supply chain needs. Cemtron developed unique capabilities in its sector now. We can build volume in the UK and in Far East, can achieve final customisation, and ship it out, providing warehousing, repairing services, and offering an open and a friendly relationship to the customers.*
> *Interviews, 2006*

Customer relations and operational excellence

Customer service is the main focus for the company. However, the management team stated that:

> *it is not always possible to give what people want; as a result staying flexible is essential but difficult to achieve in today's market place*

However customer intimacy and cost minimising are among targeted strategies. As a result it is striking that the firm developed several operational projects to involve with the customer's product design process (e.g. New Product Introduction) from an early stage to create longer term sustainable relations. Besides, the firm has a very open and honest communication between customers. They use an open book pricing system where the customer can see the break down of costs. Cemtron also is sharing earnings in case of improvements and cost cutting. If Cemtron achieves 20% cost cut, 13 out of 14 customers agree to share the saving. They are having cost meetings with customers regularly.

Also, although the company is still highly dependant to Ingenico, the management team expresses that any other new customers are where the company makes money incrementally towards a more sustainable business. In order to achieve established long term relations with the customers, the management team made a conscious decision last year and they introduced NPI (New Product Inception/ Introduction) programme where Cemtron wants to involve in the customer's product at development stage to create longer relations (See Appendix IIC for more information).

It is also worth mentioning that the industry and the sector are monitored globally in the firm. It is a very customer driven, dominated by Far East sector. This makes it difficult to implement lean philosophies. However, the firm implemented 5S and is engaging with some other quality programmes to sustain operational efficiency. They have a model of NPI and large facilities in warehousing. These are all unique to Cemtron. This is achieved successfully in this medium volume business. The MD describes the market as follows:

> *Love it or hate it! Business environment is unstable and dominated by Far East. Forget lean! You need to reinvent yourself. Fit! You can improve what customer wants but you cannot change what customer wants. You will never be able to sell something they don't want.*
> *Interviews, 2006*

Finding new customers and opportunity seeking

The business strategy is seen as a guide to pursue opportunities, therefore the management team highlighted that strategy was used to understand the core elements

of the future business as well as how to get there. Firstly, Cemtron sees its competitive advantage in being customer driven and having an open and honest relationship with the customers. Therefore, the customer orientation is central to Cemtron's strategy. Today, Cemtron has one big customer called Ingenico – Chip and Pin Security Systems. Approximately 85-90% of the turnover realised via this customer's big 'one-off' order last year. The management team stated that Ingenico is a sound company with a good order book; therefore it is difficult to turn down such large orders. This big order lay at the core of a cost increase, which contrived to result in a reduced gross margin contribution from the product line. However, Cemtron has been trying to change this high dependency. They target in the next 2-3 years to reduce dependency by aiming to achieve less than 30%-turnover dependant to this big customer only. Cemtron's customer base has been expanding, excluding the one-off 'chip and pin' effect, the level of business generated from 'non-Ingenico' customers rose to £2.8M in 2005 from £1.7M in 2004. 2005 has seen further development in the company's customer base.

Secondly, investors realise manufacturing is becoming less value and instead service, warehousing, logistics are more high value businesses. As a result, the firm expanded its services into warehousing and logistics offering total supply chain solutions. In addition, the MD says that he spends more time in China now in order to explore opportunities to expand the business there especially shifting the manufacturing side of the business. However, the MD also recognises the difficulties of manufacturing in China. For instance, material costs are getting high in China due to import tariffs and lack of supply chain management capabilities and logistics problems. As a result, this is balancing the advantage of cheap labour there. The MD said:

> *If the Chinese were buying all the material, you need to add 5% more on bill of material. However, it is still worthwhile to manufacture in China even though this might change. By the end of 2007 as a current trend, trained manufacturing people in China will be busy to develop their own business. The MD thinks China reacted to this problem quite well and started to buy companies in Turkey, the USA, Brazil, India, Czech Republic, Hungary and Africa in order to move sub-contract activity.*
> *Interview, 2006*

The MD mentioned that there were a lot of opportunities out there. He delegated some of his responsibilities to other managers on the basis of trust now. On the other hand, this management style changes brought along difficulties because the MD said:

You are telling people what to do for 4-5 years and it is difficult to change that culture.

Interviews, 2006

The company sees cultural and management style changes as a process in which they are evolving regarding management styles and values.

Internal communication and training

It is an essential process to communicate planned changes and to inform employees about management level decisions in Cemtron. The firm is spending a considerable management time for creating a better fit between organisational changes and the employees' perception about the changes. The HR manager recognises that it is important to find a balance between organisational culture and future direction. Management team talk to staff informally to communicate changes. However, they work on developing a communication process about what to communicate with whom and by which channel, for example, some people prefer visual communication via charts etc, and others prefer team communication. However, it is sometimes difficult to change the way people are used to do business. Now the management team organising a series of training programmes to change *'Why fix it if it is not broke!'* culture.

It is also noteworthy that the Company formed change management team from cross functional teams to come up with innovative ideas and communicate among each other. This enabled the employees to buy into changes and to reduce resistance to change.

Strategy tools, methods and techniques adoption

Another finding suggests that although Cemtron do not employ a very exhaustive and quantitative approach to decision making and execution of strategy, they adopt a number of strategy tools and methods. They draw on mission statements to formalise what the company is trying to achieve and to communicate it. The mission statement of Cemtron is:

> *"to provide competitive, customer driven, total quality solutions to the electronics sub-contract manufacturing sector"'*

Some examples of the tools and methods used are what-if scenarios, risk analysis, forecasting, basic pricing modelling, budgets and other financial terms (e.g. ROI, profit), balance sheet and cause analysis. Cause analysis helps understand manufacturing related problems and root causes so as the company focuses on those problem areas.

Besides, the firm utilizes some strategy tools for gathering feedback from strategic actions such as customer satisfaction surveys, personnel questionnaires and checking KPIs. Customer satisfaction survey results and balance sheet are providing information for measuring the company performance. Forecasts, scenarios and feedback are discussed in daily 9 am meetings to react quickly to business changes. KPIs are checked on a monthly basis in order to understand whether the business is making money and solvent. In addition, 5S, balanced scorecard and succession planning are among strategy tools the firm is using when executing operational and other internal strategies. For instance, 5S and quality improvement programmes are implemented in the firm. HR manager stated that:

> *The HR department is working on a training strategy for managers and shop floor staff using succession planning so as to move employees to the next level into taking more responsibilities as the business grows.*
>
> *Interviews, 2006*

This is inline with the MD's ambition to seek more opportunities in the environment. A the management team takes on responsibility into day-to-day management of the business, he will have more time to spend time abroad and seek new business opportunities and partnerships into future direction of the business.

To sum, there are not much structured ways of doing things in Cemtron. There are guidelines but mostly informal because the company does not want to block people's imagination by limiting them with too many structures in place. This might be an excuse or reality. According to the interviewees what leads to success are:

- *Trust in business*
- *First impression*
- *Performance (What you do is what you say!)*
- *Get it right and enjoy it*

- *Work together almost like in a marriage*

The strategies emerge from actions and feedback from the environment and complemented with execution of necessary changes in the organisation through both planned and emergent strategic action plans. In addition, in Cemtron's map (Section 6.4.3) the direction of arrows mainly represents a **top-down approach** to strategy (nine arrows) whereas only four arrows show bottom-up reasoning for strategic decisions. This might imply that strategy process is highly dependant on individuals e.g. managers and the MD and their commitment rather than emergent aspects.

Appendix VB reflects the responses from Dr. Peter Ball (Cranfield University) concerning verification of Cemtron conceptually ordered map as shown in Section 6.4.3.

6.5 Houston Co-pack

Houston Co-pack started out providing a transport service to the major distillers. The haulage side of the business was sold off and they concentrated on co-packing. They were sold to Smiths Packaging in 2000. Today Houston Co-pack is a small private company who provide a bonded warehouse service to the spirit industry, focusing on co-packing and promotional work "taking the hassle away" for the major distillers (since the distillers are not good at small production runs and it's not economic for them to do this). Their two major customers have been Chivas and Allied. Allied was recently taken over by Chivas which has left Houston Co-pack in a vulnerable position with 85% of their business coming from one customer. They have recently invested in bottling machinery; by making significant improvements in their production processes and with changes in their management team they have grown recently from producing 50,000 cases in 2004 to 150,000 cases expected in 2006.

Houston Co-pack had a new ownership in 2000. Houston Co-pack's strategic management activities can be divided into two distinct periods; before and after 2001 that interviewees expressed that the Company strategy was shaped in that era after the new MD was appointed. The strategic initiatives listed below reflect the period after 2001.

6.5.1 Strategic initiatives

The following bullet points summarise strategic initiatives that the Company is trying to achieve and these decisions and initiatives will be considered as the unit of

analysis for this study. The major strategic initiatives are associated with regenerating and reinventing business, new market entry, improvements in production areas and establishing and maintaining long term customer relations. Houston Co-pack strategic initiatives and decisions:

- *Focus on bottling rather than co-packing*
- *Diversification of the customer base to reduce dependency to one customer*
- *Improving production processes and productivity*
- *Price restructuring*
- *ERP, MIS (Management Information System) implementation*
- *Organisational restructuring regarding roles and responsibilities*
- *Building ongoing relationships with customers*

6.5.2 Coding

Appendix IIIC shows a summary of summary statements and the coding of them according to the conceptual framework/ taxonomy (Table 6.1). I derived 29 summary statements from Houston Co-pack case study report which helped me derive strategic activities and themes around the strategy process in the firm. I mapped those summary statements against the taxonomy and ended up with 30 items at strategy process phase level and 32 items at activity level (see Appendix IV).

6.5.2.1 Coding result for Houston Co-pack

I conducted a content analysis of the summary statements in Houston Co-pack coding table (Appendix IIIC). Within-case analysis revealed that at:

- **Process phase level** 36% of activities mentioned in the interviews is associated with strategy formulation; 57% of activities were related to strategy implementation and 7% of the activities were associated with strategy review and control phases. The greater emphasis is put on implementation phase. However, there are more number of activities within the implementation phase therefore at an activity level analysis is also significant.

- **Activity level** In Houston Co-pack *analysing the external environment* and *managing strategic change* activities are the *key* activities which were mentioned most frequently (representing 31.3% of what the company is doing to realise its strategic decisions and initiatives). Thus I conclude that Houston Co-pack put more emphasis on the following activities:

Greater than 10% - Analysing the external environment and managing strategic change

Greater than 5% - Allocate resources; Communication; Embedding strategy; Strategic choice; Defining grand strategy and goals and Workforce alignment. Above activities represent 78.1% of activities in Houston Co-pack as mentioned in the interviews (31.4% formulation phase associated activities and 46.7% implementation associated activities).
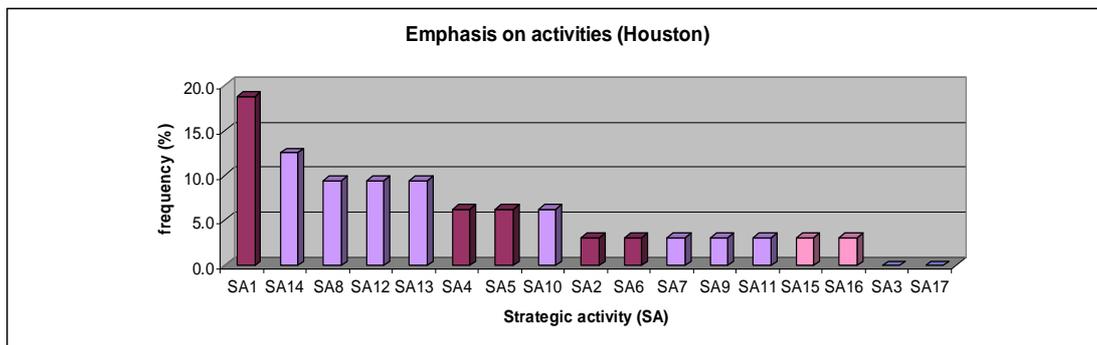
Figure 6.4. Emphasis on activities[3] in Houston Co-pack

When I look at the most frequently mentioned activities I see a pattern that those activities occur within the implementation phase of the strategy process. I can conclude that in Houston Co –pack more emphasis is put on implementation phase. Now, the following section will identify patterns and themes by using conceptually ordered maps (Miles and Huberman, 1994) in order to find out inter-linkages between summary statements and to see how they fit together.

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[3] Note: lavender colour represents implementation phase; violet represents formulation phase and pink represents review and control phase

6.5.3 Houston Co-pack conceptually ordered map
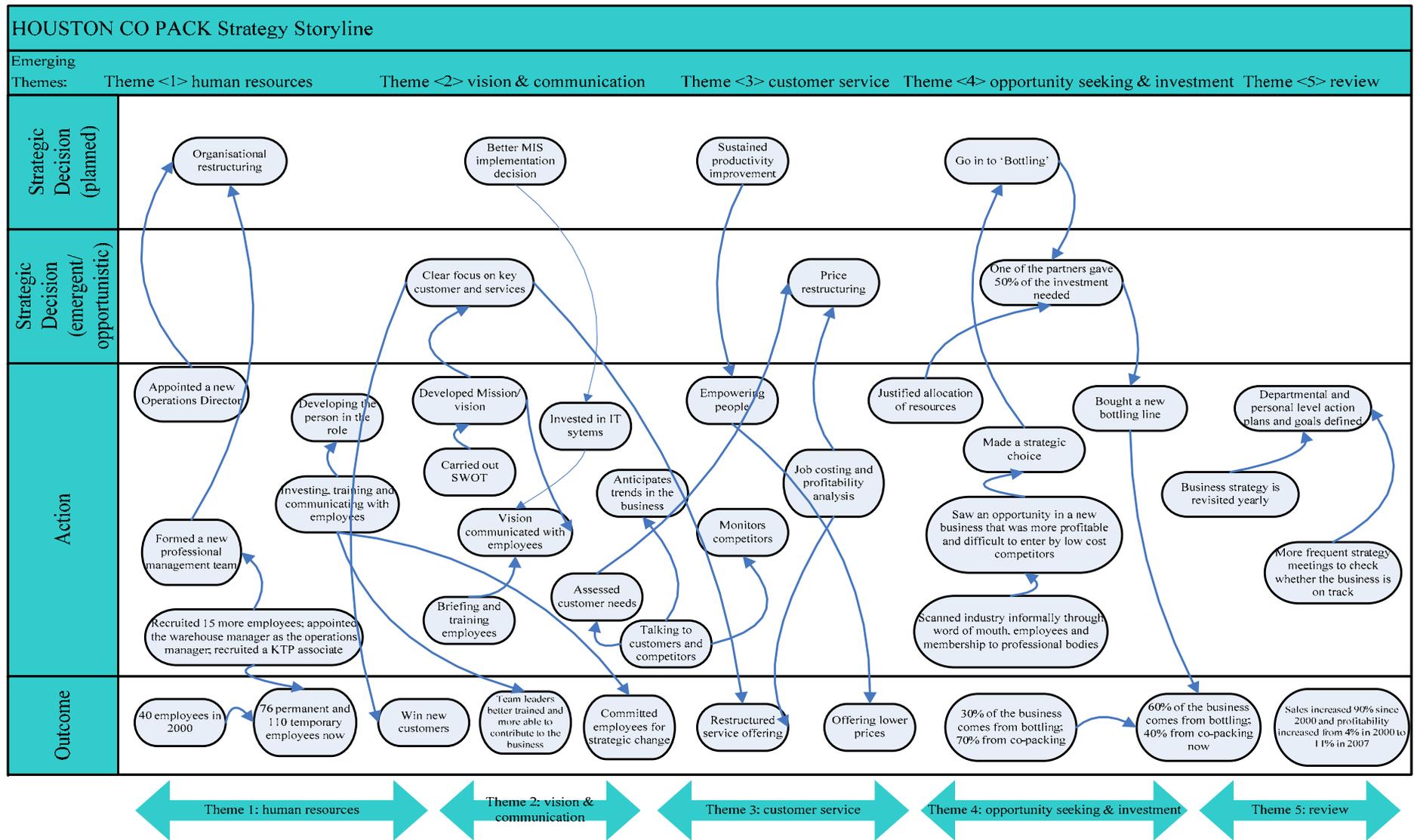
6.5.4 Researcher's interpretations

This business has a custom of removing the hassle away from the big distillers by providing them co-packing and bottling. The business is strongly related to whisky industry which is rooted in Scotland and Houston Co-pack is based in Glasgow, which is famous to be a traditional home of worldwide whisky industry. I used the map (section 6.5.3) and organised the large amount of data into emergent themes/ substantive categories in below sub-sections.

Human resources and environmental scanning

The company is driven by close customer relations and employee development. As one of the managers said:

> *…getting the right people in the right places and developing the person in the*
> *role are central to business strategy.*
> *Interviews, 2006*

Although process improvement is deemed to be important and SOPs and KPIs are in place, the Company does not rely on quantitative and formal methods to scan environment and develop strategies. For instance scanning environment, monitoring competitors and communicating customers are done through informal means and mostly via word of mouth. However, the Company has employed *SWOT analysis* in order to understand its own capabilities and resources and market opportunities and treats prior to developing the vision and mission for the business.

Customer relations

Inter-organisational relations are a key factor. This is about individuals at Houston's building relationships with key personnel in the client organisations. The problem is that it is often the case that by the time a relationship based on trust has been established with a key individual in the client organisation, that individual is re-deployed soon thereafter and the process has to begin again with a new individual (e.g. during acquisitions – Chivas taking over Allied). Therefore, it becomes difficult to establish good inter-organisational relations. Often, the new individual in the client organisation is not aware of who the reliable companies are and will give the business to the "cowboys" since they are cheaper. For example, there was a job change at Allied, this new person checked out prices and Houston's was 20% higher than anyone else. Rather than take this lesson on board and take this as an opportunity to

reassess their prices they ignored this and as a result Houston Co-pack lost £500,000 worth of business. The managers expressed in the interviews that:

> *Houston faced with a number of competitors, often taking the form of small "cowboy" companies that enter the market to "make a quick buck"; they undercut Houston on price but in doing so often file for bankruptcy, later reappearing under another name. These competitors do not always provide a reliable service as Houston's strives to do but due to the pricing matrices used by the customers still win the business. Houston has better people (more professionally managed firm), we don't try to be the cheapest so we are more financially sound and have better I.T. systems in place. We also have more space in our warehouse and therefore can do things on a bigger scale. We demonstrate that we are professional rather than just in it to make money.*
>
> *Interviews, 2006*

Opportunity seeking, investments and reducing dependency to one major customer

2000 and 2001 is a key period when Houston Co-pack was acquired by Smiths Packaging in 2000, Smiths appointed a new Operations Director, Bill Dickie with corporate experience in February 2001. The company started to develop a more professional management team to run the business. In 2001, the company started to focus on consistent strategy with a clear focus on customers and services. The firm recognised the need for a better MIS (Management Information Systems) and in 2001-2002 they focused on production processes and systems. These attempts improved the profit and they also employed 15 more people. The company analysed job costing and profitability in 2003. The company invested in implementing an ERP system in summer 2004. However, they lost business from their major customer Allied in 2004 due to high prices. Then, the company restructured its price strategy in 2004-2005. Unfortunately, the business did not make profit in 2004 as a result.

The company managed the turn around the business just after this loss. In 2005 the company focused on process improvement and internal restructuring in order to better their price. They positioned themselves strategically in 2005, these improvements have given fruits shortly and Allied returned to Houston Co-pack because the customer service level was better in Houston Co-pack. The company went on winning new customers in 2005-2006 in order to reduce its dependency to one

major customer. The firm collaborated and invested in Tomatin, a new customer, and in 2007 100% of Tomatin production has been done by Houston Co-pack.

An interesting finding was the role of opportunistic and emergent strategic activities influencing strategic decisions. Bottling industry is considered as an attractive industry due to high barriers to entry, few firms, abundant product differentiation, and low demand elasticity. This new market is considered to be costly to imitate by the small competitors. The investment needed to go into bottling was made by one of the partners and this made it possible to expand the business in this new area. However it was a rational decision in the first place to go in to bottling and this opportunity was seen in the environment. Since the resource justification was an important strategic activity in order to realise the strategic choice to go in to bottling sharpened the necessity of more financial investments. In this case this strategic initiative was realised through one of the partner's financial investment which is 50% of the investment sought. Then, a new bottling line is purchased and further investments and resource allocations put in to develop bottling business. Now 60% of the business comes from bottling rather than co-packing and the company increased sales (90%) and profit (from 4% to 11%) from 2000 to 2006.

I conclude that emergent opportunity seeking and creation as well as convincing other investors to back strategic initiatives financially are the key here leading the strategic initiative to the implementation.

Strategy tool, methods and techniques adoption

There is evidence that the company employed *SWOT* analysis when setting the *vision and mission* for the business. Besides, SWOT analysis is carried out so as to understand company resources and capabilities as well as seeking opportunities in the environment. Also, financial analysis techniques such *as job costing and profitability* analysis are used when making price restructuring strategy. I conclude that strategic tool and methods usage is poor in the company. Execution of strategic activities is carried out mostly through informal communication channels, meetings and discussions.

In conclusion, the company manages its strategy with both a planned and emergent fashion. It is interesting that the strategic activities are more focused on financial matters, employees, general communication with employees, competitors and customers but not necessarily through written-down formal procedures. However,

these strategic activities have led important strategic decisions made in the company. For instance, price restructuring and productivity improvement decisions emerged as a result of communication with customers and monitoring competitor service offerings. Finally, the researcher concludes that strategic plans and implementation activities do not follow each other sequentially but instead they interact dynamically. Sometimes, implementation activities result in new emergent or planned strategic decisions and sometimes strategic plans lead a series of implementation activities. Conceptually ordered map (Section 6.5.3) also shows that the arrows between decisions and actions are both representing a **bottom-up approach** (seven arrows) and a **top-down** approach (six arrows) to manage strategy.

Also, my interpretations are verified by Prof. Umit Bititci who has extensive knowledge about the firm by working closely with the company over years. Appendix VC reflects his responses on my map and interpretations.

6.6 TFC Cables

Located in Excelsior Park, Motherwell, TFC is a privately owned tier one electronics sub-contract manufacturer. Established in 1971, TFC's initial business was in the production of specialist electrical assemblies and cable harnesses for IBM in Greenock, Scotland. TFC has since expanded and diversified and now provides a range of services such as high level assembly, box build, prototyping, supply chain management and design in addition to the initial service offering.

When the organisation was founded in 1971, there was little complexity to either the organisational structure or product range. In other words, one director, one customer, one product and a large operational staff all were performing the same task. Over the years, this has changed significantly, and there are now three owners who respectively hold the position of CEO, MD and Materials Director. There is a further team of senior managers, a business development director an agent and a grass roots leadership structure in the form of team leaders. There is also a complex product portfolio, complex supply chain and approximately 25 customers. In the 1990s, the company was largely tied to one customer – NCR – and pursued what it freely admits as high margin contracts. The company now has multiple customers and a significantly more complex supply chain (c. 6000 components from around the world, flowing into c.1000 products).

TFC operate in a market where there is much competition, particularly from overseas, and where there is a strong emphasis put on cost for volume manufacture products. In recent years, they have seen 4 of their major UK competitors go out of business. TFC have not restricted themselves to any one particular sector of client (e.g. consumer electronics, industrial, aerospace etc.) in order to diversify its customer base. The management team at TFC have identified a number of challenges for the future which they need to address.

TFC's strategy management activities can be divided into two distinct periods; before and after 2000-2001 that interviewees expressed that the new business strategy was shaped inline with the new market requirements in that era. The strategic initiatives listed below reflect the period after 2000-2001.

6.6.1 Strategic initiatives

The major strategic initiatives are associated with regenerating business and being a service provider not only a manufacturing firm, strategic partnership with a European manufacturer, improvements in production areas to stay flexible and diversification of customer base (finding international customers). TFC strategic initiatives and decisions are as follows:

- *To change from a high margin, small number of customers and high volume manufacturer to more of a service provider that is serving to an increasingly diverse customer base.*
- *Diversify its customer base in response to previous bad experiences from depending on one or two major customers.*
- *Expand to foreign operations of existing customers and building strong relationships (due to declining local market size within the UK).*
- *To response threats from low cost economies on the topics of remaining cost competitive, the reverse engineering of products, preventing of stealing IP (Intellectual Property) without moving operations to China and/or India.*
- *Partnering up with an Estonian manufacturer for the provision of all mass manufactured components and assemblies (investing in strategic partnerships).*
- *To facilitate the value added flexibility of operations whilst minimising cost.*
- *Improving internal efficiency in order to stay competitive.*
- *Focusing on removal of waste in order to deliver flexibility and profit so as to be a high value service provider.*

6.6.2 Coding

Appendix IIID shows a summary of summary statements and the coding of them according to the conceptual framework/ taxonomy (Table 6.1). I derived 42

summary statements from TFC case study report which helped me obtain strategic activities and themes around the strategy process in the firm. I mapped those summary statements against the taxonomy and ended up with 46 items at strategy process phase level and 58 items at activity level (see Appendix IV).

6.6.2.1 Coding result for TFC

I conducted a content analysis of the summary statements in TFC coding table (Appendix IIID). Within-case analysis revealed that at:

- **Process phase level** 28% of activities mentioned in the interviews is associated with strategy formulation; 61% of activities were related to strategy implementation and 11% of the activities were associated with strategy review and control phases. The greater emphasis is put on implementation phase. However, there are more number of activities within the implementation phase therefore at an activity level analysis is also significant.

- **Activity level** In TFC *executing strategy, managing strategic change analysing the external environment and allocating resources* are the *key* activities which were mentioned most frequently (representing 58.62% of what the company is doing to realise its strategic decisions and initiatives). Thus I conclude that TFC put more emphasis on the following activities:

Greater than 10% - Executing strategy; Managing strategic change; Analysing the external environment and Allocating resources

Greater than 5% - Defining grand strategy and goals; Workforce alignment; Institutionalising the strategy and Revising strategy. Above activities in total represent 79.31% of activities in TFC as mentioned in the interviews (18.9% formulation associated activities and 55.2% implementation associated activities).

Emphasis on strategic activities (TFC)
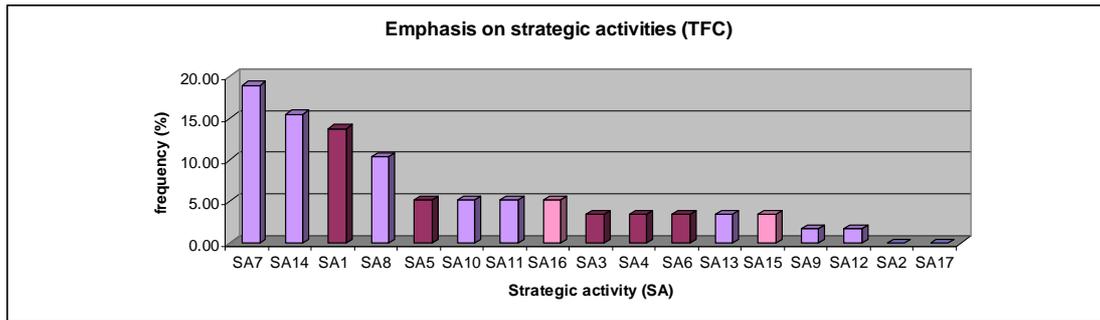
Figure 6.5. Emphasis on activities[4] in TFC

When I look at the most frequently mentioned activities I see that those activities mainly occur within the implementation phase of the strategy process. I can conclude that in TFC more emphasis is put on implementation phase. Now, the following section will identify patterns and themes by using conceptually ordered maps (Miles and Huberman, 1994) in order to find out inter-linkages between summary statements and to see how they fit together.

Now, in the following section I will identify patterns and themes by using conceptually ordered maps in order to find out inter-linkages between summary statements and to see how they fit together.

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[4] Note: lavender colour represents implementation phase; violet represents formulation phase and pink represents review and control phase

6.6.3 TFC Cables conceptually ordered map

TFC Strategy Storyline

Emerging
Themes: Theme <1>: scan environment, focus on service market Theme <2>:operational efficiency/ cost & quality Theme <3>: customer relationships Theme <4>: flexibility/ responsiveness Theme <5>:investments and strategic partnerships

Strategic Decision (planned)

- Becoming a service provider/ focus on service market
- Focus on operational efficiency/ improve quality
- Diversifying the customer base
- Maintaining good customer relationships
- Strategic partnership with Estonian manufacturer

Strategic Decision (emergent/ opportunistic)

- Bring in new business/ stay competitive
- Grow with the existing customers
- Achieving value added flexibility/ responsiveness/ 'jump on'
- Coping strategies to respond threat from low cost Far Eastern countries

Action

- Monitored environmental changes (i.e. competition from India and China) has resulted in a need to differentiate – no longer can they compete on costs
- Weekly meetings with shop floor staff to reinforce quality/ eliminate defects
- Kanban system is implemented to increase responsiveness and cost cutting
- provide the design for a cable system or suggest improvements to existing client designs
- Human resources planning for overtimes during busy periods
- Targets set for small batch runs to fill client 'gaps' quickly
- Economies of scale and cheaper labour advantages exploited
- Board of directors made a decision to invest in a strategic partnership
- Watching the environment mostly informally – word of mouth
- Indirect staff increased in service areas e.g. SCM and NPI teams
- A new layout separating stations and thus allowing different combinations of working patterns to take place implemented
- Benchmarked its operating practices against similar firms in Scotland for internal cost reduction
- spent time in the field appreciating their business and developing new and improved methods of production
- fast set up and process times are facilitated. The company refers to these as 'jump on's'
- Part time staff allocated to check real time stock levels in customer site
- Analysing threats and priorities for the business
- Reacting legislative changes as required
- Performance related pay system implemented
- Reduce waste
- Kaizen practice implemented
- Become an exclusive supplier by exceeding customer expectations
- Weekly telephone updates and monthly face-to-face conversations with customers
- Involved staff to decision making
- Communicating changes via electronic and notice board medias
- Training staff and staff appraisal systems implemented
- Bring in external expertise
- Sales team participates trade forums, conferences, shows to understand new technologies and to look for niches
- Motivating staff
- Fast delivery cycles and maximum throughput achieved
- encouraged customers to pay within 30 days rather than 60 or 90 along with avoiding paying suppliers for a month to max cash
- Hitting shipment dates
- Understand quality issues and customer concerns
- Customer feedback feeds into decision making
- facilitated sharing insights, highlighting problems and working on resolutions
- Regular management meetings held
- KPIs checked to highlight any deviancy early

Outcome

- 4 of major competitors went out of business in recent years in the UK
- remained in business in recent years during a flurry of outsourcing and off shoring from their customers
- Good customer service and relationships
- Too much dependency to NCR
- Decreased potential vulnerability to depending one customer
- Having 25 different customers rather than 5
- United front presented by senior management team and an open culture I the organisation established

Theme 1: scan environment & focus on service market →
Theme 2: operational efficiency & cost & quality →
Theme 3: customer relationships →
Theme 4: flexibility & responsiveness →
Theme 5: investments & strategic partnerships →

6.6.4 Researcher's interpretations

This case study is carried out in TFC Cables that has been in the business for more than 20 years and is able to cope with the changing global competition last few years. Although some of its major competitors went out of business and a fierce competition has been emerging from low cost countries, TFC managed to stay in business successfully in recent years. The firm is located in a high wage country however the firm is trying to stay competitive and grow through engaging a number of strategic initiatives and actions such as focusing on service market, exploiting opportunities in the environment and shifting mass manufacturing activities to Eastern Europe, improving customer relationships, maintaining flexibility and responsiveness as a major competitive advantage, improving quality and operational efficiency and investing in employees and training (See Appendix IIE). Because the data is very large; therefore I will organise it according to the emergent themes from the map (Section 6.6.3).

Focusing on service market and environmental scanning

Scanning environment is done mostly informally through word of mouth and other actions included using *tradeshows* to watch where the market was moving to, and thus to look for niches and hit people at the 'change' time. TFC increasingly recognised that fierce competition emerging from Far East has led the firm to seek other competitive positions and differentiate from targeting low cost only. Then, the firm focused on allocating more human resources to support developing business in service areas such as New Product Introduction and Supply Chain Management. Becoming a service provider strategy is also associated with some other strategic initiatives such as quality, operational efficiency and bringing in new business and staying competitive as an overall business strategy.

Flexibility/ responsiveness

An area seen as key to all those interviewed was the need to achieve value added flexibility. TFC has seen an opportunity in being flexible to meet customer requirements on time since the customer can be willing to pay more for things to be

done in their way. This opportunity is executed in the entire organisation by naming it with their own jargon '*jump on's*. Jump on is a terminology, internalised within the organisation referring giving the priority to customer's last minute small batch order that is dealt with before all scheduled production. The need for TFC to be more flexible halts from the fact that environmental changes (i.e. competition from Far Eastern countries) have resulted in a need to differentiate since they are no longer cost competitive.

The first strand of action within this theme is to consider existing customers and communicate with them face-to-face and on the phone continuously to understand their requirements. The firm allocated part time staff to monitor clients' real time stock levels. Overtimes planning and human resource allocation are among other strategic activities. In line with this strategy, the company redesigned its factory layout to enable fast set up and process times for small batches to manage *jump ons*. Besides *Kanban system* is implemented to increase responsiveness and to supply spares to clients on their request. Being an exclusive supplier, TFC also suggest improvements to existing clients' designs for cost savings i.e. one cable where previously five needed. This theme also links with other themes and strategic initiatives such as maintaining good customer relationships, quality outcomes and shifting mass manufacturing to an Eastern European partner. The managers stated that:

> *Jump on's negatively affect operational efficiency but maintains and enhances good customer relationships*
> *Interviews, 2006*

Maintaining good customer relationships

There were a number of actions that could be taken to build long term good customer relationships. The first focuses on meeting with clients to understand quality issues as this was seen to contribute towards building a relationship through understanding their concerns. Hitting shipment dates was another key area linking with becoming an exclusive supplier by exceeding customer expectation and providing a good service. Achieving this was seen as being closely allied to the need

for the right staff being involved in production that links with training and motivation.

Other suggestions focused around getting word of mouth recommendations about the service TFC was providing the customer was of good quality in an attempt to ensure all customers using TFC felt able to promote the company to others. Using exhibitions as a good source of contacts was another action that the company felt should be encouraged both of these also directly impact on bringing in new business. Moreover, making suggestions for improvements on clients' designs also enhances good customer relations. Where successful relationships are built, then persuading the customer to pay some of the improved design costs – linking to growing with the existing customers also becomes possible. This theme as noted above is strongly related to the two regarding flexibility and new business and diversifying the customer base however it also has links with quality, operational efficiency and staffing.

Operational efficiency, cost cutting and a focus on quality

The firm benchmarked its operational processes with similar companies in Scotland in order to learn from best practices in the areas of quality and cost cutting. Through various actions/initiatives e.g. using the Kanban approach for stocking of materials it is possible to make sure that there are a sufficient number of the right parts immediately available for those producing the harnesses. By improving purchasing systems and using other information systems e.g. ERP further improvements to production were manifest. Furthermore, management and training of people and using the right people in the right jobs meant that a high quality job was achieved. Systems such as *Kanban and Kaizen*, and check lists also reinforce a quality culture as does setting up of NPI teams. During Kaizen implementation studies external expertise is brought in.

As noted above in the sub theme on cutting costs, reducing waste and achieving fast delivery cycles, better layout of the factory floor was an area for continuous improvement. However to fully capitalise on these efficiencies the need for good communications through meetings – both on the shop floor and at senior levels and monitoring of KPIs were seen as paramount. Quality improvements were seen as stemming from a range of actions. The first focused on ensuring that

adequate training has taken place so that staff was capable of doing the job whether that training be soldering, crimping or reading a diagram/schematic. Staff appraisal systems also are put in place so as to motivate employees.

Providing staff with more responsibility and encouraging them to come up with innovative ideas and involving in decision making – a change in culture – was facilitated by regular meetings of those on shop floor to discuss the week's problems. Initially taking between 2-3 hours these meetings had now been reduced to 30-40 minutes as improvements re quality were seen and the processes familiar and well practised. This in part was due to establishing a "*get it right first time*" culture – "*do the job right*" through being energised and motivated. Along with the appraisal system, being made responsible for the output, and regularly having meetings to resolve issues helped staff focus on the need for quality. Having management focus their attention on quality also contributed – *walk the talk*. Finally getting rid of the 'weaker' elements which were highlighted through the appraisal system further reinforced the quality culture.

Investments and strategic partnerships

It is noteworthy that, opposite to Cemtron's strategy, TFC made a strategic decision and rather than moving manufacturing activities to Far East, TFC partnered up with an Eastern European manufacturer. TFC was acting more cautious due to the potential threats to IP rights protection in Far East. Another interesting fact is that both Cemtron and TFC are recognising the importance of investing into new product development (NPD) activities that are highly valued by customers.

Instead of buying a new company TFC made a conscious decision and preferred to invest in a strategic partnership so as to shift mass manufacturing activities. This enabled TFC to increase capacity to become more responsive to the customer demands as well as still remaining capable of manufacturing big batches. This strategic choice emerged from environmental scanning activities and as a result planning strategies to cope with threat coming from cheap labour countries. This also links with priority and threats analysis carried out by the management team. Partnering up with an Estonian manufacturer has made it possible to cut labour costs

and exploiting economies of scale advantages. The changes within the organisation are communicated with employees through notice boards and electronic means.

Strategy tool, methods and techniques adoption

Strategy tool utilisation in TFC seems to be poor. It was mentioned in interviews that in order to help the achievement of the internal cost reduction targets, the organisation *benchmark*ed its operating practices against similar companies in Scotland. The firm carried out benchmarking for making decisions and learn from best practice in operational areas of the business. Besides, the organisation uses *priority and threats analysis* which seems to be a modified version of SWOT.

In conclusion, there are no formal, written-down or published long term (3-5 years) strategy and vision exist in the organisation. However, there is a common understanding of the threats and priorities for the business among the management team as well as all employees. All managers are very action oriented and they all play an active 'hands on' role by ***holding multiple functions*** to run the business. Having regular meetings of senior team, ensuring good communications facilitated by a change in the structure of organization facilitated sharing insights, highlighting problems and working on resolutions so as to achieve the business strategies. The management team present a 'united front' when interacting with the shop floor staff regarding strategy implementation so as to get the message across in a consistent manner. Regarding how strategy managed in TFC, conceptually ordered maps demonstrate that TFC both adopts a **bottom-up** (there are ten arrows on the map representing actions leading decisions) and **top-down** approach (there are also ten arrows showing planned or opportunistic decisions are leading action) to managing its strategy. Finally, my interpretations regarding TFC verified by David MacKay, who worked with the company as an external consultant and his feedback, is reflected in Appendix VD.

6.7 Cross-Case Analysis

The purpose of cross analysis of cases is to strengthen the understanding, explanation and although it is not the primary focus in qualitative research to enhance generalisability (Miles & Huberman, 1994). In this section, the researcher

aims to explore where the multiple cases are diverse or converging as well as finding out under what sets of emerging themes the strategy process can be explained in an SME context.

In order to achieve the above objective, the researcher will compare and contrast cases versus research questions and the conceptual framework developed via a review of literature. The tables in appendices are constructed from within-case analysis results as explained earlier in this chapter as well as according to the answers to the research questions in validated peer review forms (Appendix VA to Appendix VD). Besides, the tables are centrally organised by concepts from strategy process conceptual framework (Table 6.1) and research questions (Chapter 2). Noting down the patterns and themes is used as a research tactic.

6.7.1 Cross-case analysis results

The researcher utilised the following pattern codes (in the following sections) to identify emerging patterns from cross-case analysis of four companies. Because the matrixes are organised by case companies versus the content in the format of answers to research question, she ordered codes inline with the research questions. First, the researcher created the tables in the following sections and grouped the repeated patterns by highlighting and assigning a number to them individually. Second, the researcher created a matrix by cases versus concepts in the strategy-process conceptual framework in order to explore patterns amongst strategic activities as carried out in practice compared to literature.

In my within-case analysis I used **organisational categories** (formulation, implementation and review based on literature) to categorise/ organise data in order to make sense of it. Then to establish significance I used maps and coding tables which led me to draw tentative conclusions representing my **substantive categories** and here in cross case analysis I aim to achieve to explore **theoretical categories** (Maxwell, 2005).

The answers to the research questions are based on conceptually maps, coding tables as well as peer review forms in Appendices.

6.7.1.1 Answers to Research Question 1

I set the first research question based in literature review in Chapter 2: *What are the key activities that are carried out by manufacturing SMEs in the strategy process?*

The company practices are mapped against the conceptual framework/ taxonomy in within-case analysis sections earlier in this chapter. The intention is to explore the key activities and phases in the strategy process in SMEs.
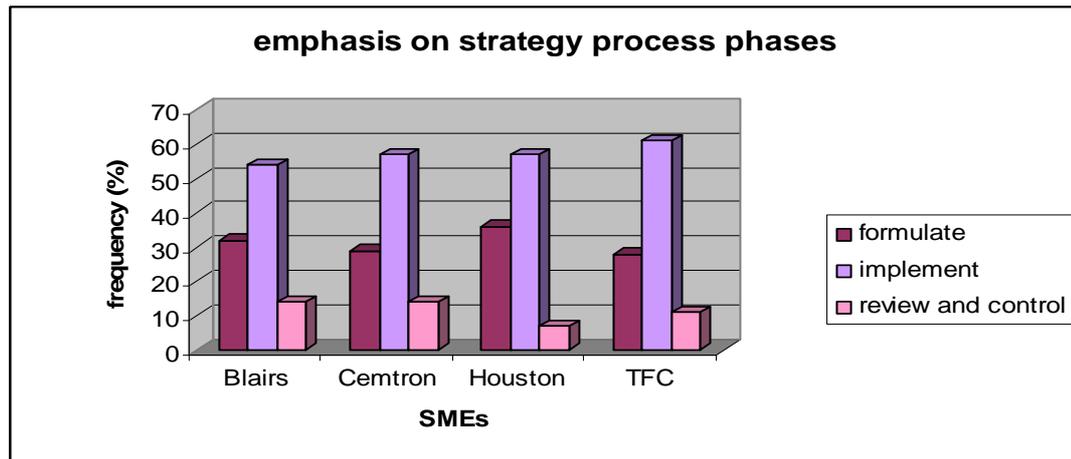
Figure 6.6. Within-case analysis about the emphasis on strategy process phases

Figure 6.6 implies that each SME investigated demonstrate a similar pattern across phases with more activities was carried out within the implementation phase. However, I think investigating this at an activity level comparison is also necessary here because in the conceptual framework/ taxonomy, there are more activities in implementation phase and fewer activities within formulation and review phases. Therefore Table 6.3 will populate areas where the company is putting more emphasis on. What I mean by 'more emphasis' represents the most frequently mentioned activities during interviews by the managers. I consider that if managers deem that an activity is the key to their business or operations strategy, they would mention about it more often emphasising its story and implications during the interviews.

Table 6.3. Cross case[5] analysis to answer the RQ1

Item number	Item	BLAIRS	CEMTRON	HOUSTON	TFC
		% of occurrence	% of occurrence	% of occurrence	% of occurrence
	Formulation Phase				
SA1	Analyse the external environment	*yes*	*yes*	*yes*	*yes*
SA2	Analyse company core competencies, capabilities	**no**	**no**	**no**	**no**
SA3	Evaluate opportunities	no	yes	no	no
SA4	Strategic choice	no	no	yes	no
SA5	Define grand strategy and goals	*yes*	*yes*	*yes*	*yes*
SA6	Define short-term objectives and action plans	no	yes	no	no
	Implementation Phase				
SA7	Execute strategy	yes	yes	no	yes
SA8	Allocate resources	no	no	yes	yes
SA9	Planning and budgeting	no	yes	no	no
SA10	Workforce alignment	yes	no	yes	yes
SA11	Institutionalising strategy	yes	no	no	yes
SA12	Communicate strategy	yes	yes	yes	no
SA13	Embed strategy	no	yes	yes	no
SA14	Manage strategic change	no	yes	yes	yes
	Review & Control Phase				
SA15	Gather feedback from strategic activities	yes	yes	no	no
SA16	Revise strategy	no	no	no	yes
SA17	Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required	**no**	**no**	**no**	**no**

It is interesting to see that within-case analysis revealed that implementation phase was the key in SMEs investigated with more emphasis put on activities associated to implementation phase. However, cross-case analysis implies that across cases more emphasis is placed on analysing the external environment and defining grand strategy and goals. This may imply that SME investigated are externally oriented and it is common across cases that organisation actions are carried out according to defined goals.

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[5] In Table 6.3 'yes' representing emphasis greater than 5% and 'no' representing emphasis less than 5% that is placed to the relevant activity

On the other hand, all four SMEs are putting less emphasis on two activities namely, analysing core capabilities and appraising and testing strategy with departmental plans and modify them if necessary.

Implementation phase showed different configurations therefore I did not see a common pattern across cases; however there are four activities that three out of four SMEs were placing greater emphasis on. These activities are executing strategy (SA7), workforce alignment (SA10), communicating strategy (SA12) and managing strategic change (SA14).
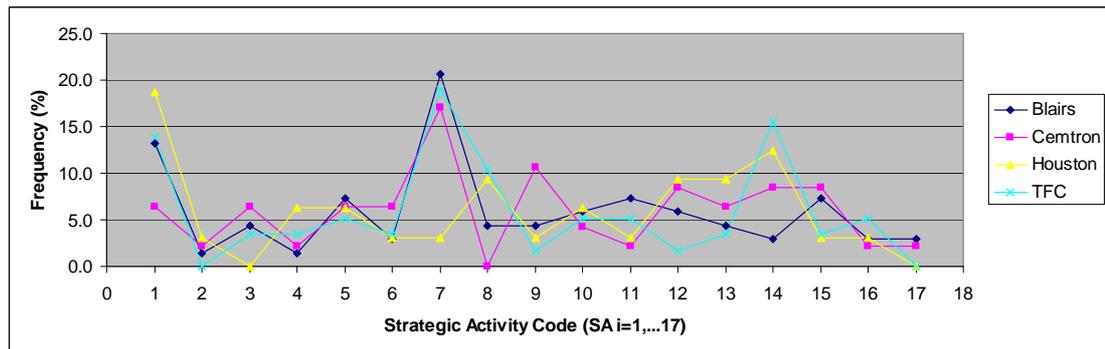
Figure 6.7. Within-case analysis about the emphasis on strategy process activities

As a result, answer to the *Research Question 1* would be as follows:

*Although SMEs are doing all activities in the strategy process, **analysing the external environment** and **defining grand strategy and goals** to direct the operations are carried out strongly. Besides, execution of strategy, human resources allocation and alignment as well as communicating and managing strategic change are among significant activities (activity loads regarding how many times they occur). Particularly, in the implementation phase SMEs are putting different levels of emphasis on the activities.*

6.7.1.2 Answers to Research Question 2

I set the second research question based in literature in Chapter 2: *What is the key focus of the strategy process in the context of manufacturing SMEs?* In order to answer my second research question I believe that strategy content as well as strategy process should be investigated. Thus, I will analyse strategic initiatives across four cases first followed by a thematic pattern searching exercise at activity and process

level. Appendix VI shows the patterns across activities within the strategy process as derived from company practices. In addition, within-case analysis also provided me with some emergent answers to my second research question and they are presented in Appendix VI.

Pattern searching on those three tables (Table 6.4, Table 6.5 and Table 6.6) has revealed some emergent answers to my second research question. These patterns apply to all SMEs investigated. As a result, I can conclude that the strategy process in manufacturing SMEs has a particular focus on the following points:

- *Diversifying the customer base*

SMEs investigated mainly dependent on some major customers and they wanted to reduce this dependency via seeking new customers, an example from Cemtron:

We target in the next 2-3 years to reduce dependency by aiming to achieve less than 30%-turnover dependant to our big customer only. Ideally we want to be a larger company in 2-3 years rather than being dependant highly to a single customer. Our management team has been trying to find new businesses recently because they are aware of the fact that 'if Ingenico catches a cold, Cemtron will catch pneumonia!'

Interviews, 2006

- *Involving in customer designs by suggesting improvements*

For instance, Cemtron tries to accomplish the "golden handcuff effect" by involving the customer product design at an early stage (NPI) so as to establish longer term relations with them. They also share the earnings with the customer through improvement suggestions on the customer's products.

- *Achieving operational efficiency and effectiveness*

All SMEs striving to accomplish operational excellence in their business through cost cutting, quality improvements, speedy delivery etc. For instance in TFC:

Systems such as Kanban and Kaizen reinforce a quality culture as does setting up of NPI teams.

- *Investing in new equipment, systems and buildings*

The investigated SMEs are investing into new facilities and systems to expand their business as well as ensuring efficiency and productivity. For example, in Blairs, old

machined scattered around the shop floor were removed as described by the director of engineering/ R&D:

> *…removing the black teeth from the system freed up capacity and increased productivity.*

> ■ *Fostering innovative ideas among employees*

Investigated SMEs mentioned in the interviews the importance of people development and encouraging staff to come up with new ideas. For instance in Blairs:

> *Union negotiations led to development of a conversion process to top up skills and qualifications of staff. Transparent grading system introduced with visibility of how everyone could move up the scales. Cross training of people has taken place. For instance, a course on **Systematic Inventive Thinking** was organised for the engineers who works in order processing. A 'pay back' approach is used with a formal process to control innovative ideas.*
>
> *Interviews, 2006*

Also in Houston Co-pack:

> *The company deems that it is important to make people feel that they have something to contribute. The new management has asked them what is not right and how these problems can be fixed. This is the start of the strategy process in our company, 'developing the person in the role'.*
>
> *Interviews, 2006*

> ■ *Organisational restructuring regarding roles and responsibilities*

In the investigated SMEs managers are generally holding multiple functions such as in Blairs Director of Engineering/ R&D; Finance/IT/HR director positions. An example from Houston Co-pack goes as follows:

> *In 2005 they started to win back work from Allied, their pricing became more competitive and again started building up relationships with people at Allied, then Allied were taken over. However, they are in a better position now due to the productivity improvements. One key change in achieving some of these improvements was moving the warehouse manager to be the operations manager. In addition to this bringing in a 'fresh pair of eyes' in the form of a KTP (Knowledge Transfer Partnership) associate from University of*

*Strathclyde has been important. 'Getting the right people in the right places'
has been important for Houston Co-pack.*

Interviews, 2006

- *Negotiating and convincing lenders and legislative bodies*

In the SMEs I studied, financial resources were playing an important part to put
strategic plans into actions. Therefore maintaining honest and open relations with
lenders was central to the strategy process. For instance, Blairs of Scotland appointed
some staff whose job is maintaining this relationship with the banks.

- *Bringing external expertise from universities or local associations*

I have seen an open attitude towards bringing external expertise from universities in
both strategic decision making and implementations activities in all of four SMEs.
For instance, the companies are working with some academics from the University of
Strathclyde many years and they employ new graduates and KTP (Knowledge
Transfer partnership) associates.

- *A focus on regenerating the business and differentiation*

In many cases in the interviews, managers mentioned how the business turn around
was accomplished from major loss and how the companies are managing strategic
change.

- *Flexibility and responsiveness*

I have seen common pattern across four cases that SME strategy focus on flexibility.
For instance in TFC, they institutionalised a terminology 'jump on's' referring giving
priority to some customers and being flexible to meet their demand quickly. Also
Blairs do not have product catalogue because they aim to stay flexible in their
product offerings.

- *Opportunity seeking*

Opportunity seeking is at the heart of the strategy process in the investigated SMEs. I
consider that it is a reason behind this focus that analysing the external environment
as an activity is emerging as a key activity in the process. SMEs are either seeking
opportunities overseas like in Cemtron example or continentally like in TFC example
or nationally like in Blairs and Houston examples.

6.7.1.3 Answers to Research Question 3

Table 6.6 in Appendix VI shows the patterns emerging from verified within-case study analysis. The review process ensured the outer control and helped to triangulate data and my interpretations for reliability and objectivity purposes.

As a result, emergent answers to the RQ.3 suggest that the following are the tools and methods used in SME strategy process which are:

- *Vision and mission statements*
- *SWOT*
- *KPI*
- *Benchmarking*
- *Market research (surveys, customer feedback, industry cycle plots, scenario planning)*
- *Financial analysis (job costing, profitability analysis, pricing, forecasting, budgets, balance sheet, ROI)*

For example Cemtron's mission statement is:

> *"Cemtron Limited aims to provide competitive, customer driven, total quality solutions to the electronics sub-contract manufacturing sector."*

Houston Co-pack company vision is:

> *"Houston Co-pack wants to be the leading provider of spirit packaging services to the whisky industry and to be good value for money in providing this service. Their aim is to take the hassle away from big distillers."*
>
> *Interviews, 2006*

More examples from company practices regarding the listed strategy tool and techniques usage in SMEs are summarised in greater detail in Coding Tables in Appendix IIIA to IIID as well as in within-case analysis sections at the beginning of this chapter.

6.7.1.4 Answers to Research Question 4

The emergent answers are summarised in Table 6.6 in Appendix VI. Patterns searching revealed that strategic initiatives and decisions whether planned or emergent are leading to implementation:

- *via communication*

For example in Houston:

They carried out a SWOT analysis and from this developed a mission and a strategic plan. This vision has been communicated throughout the organisation. They did this through briefing people and through training sessions. This message was repeated 'saying it once or twice is not enough you have to say it all the time' as the MD says.

Interviews, 2006

Similarly the MD in Blairs went down to the shop floor and talked to the employees during business turn around strategy in 1997s. In Cemtron the management team holds daily 9am meeting to communicate business results and follow progress against plans and targets. The company established good communication means externally with customers but also they are developing an internal communication strategy with the staff. In addition, in TFC the management team demonstrates a united front when communicating with the staff so as to implement strategies effectively.

- *via resource allocation and investments (in financial terms and human resources)*

I have found that financial and human resources are the key to put strategies into actions. For instance, in Houston:

Investing into a new bottling line as a strategic initiative was realised through one of the partner's financial investment which is 50% of the investment sought. Then, a new bottling line is purchased and further investments and resource allocations put in to develop bottling business.

Interviews, 2006

- *from a combination of top-down and bottom-up fashion in SMEs*

As I explained in within-case analysis sections in earlier sections of this chapter, the direction of arrows on verified maps may indicate the nature of approach to strategy

process in SMEs. I discovered that in the investigated SMEs strategic initiatives and plans are leading implementation from both bottom-up (more emergent) and top-down (more planned) fashion. Examples can be found on conceptually ordered maps in earlier sections of this thesis as well as in within-case analysis sections.

6.7.1.5 Answers to the broad research question

In conclusion, I have found that strategy process is managed mainly informally and intuitively without published strategy documents and statements and quantitative analysis in SMEs. Strategy process is highly dependant on individuals such as managers and committed employees. However, there is some evidence that strategy processes and activities are defined and institutionalised in some cases. Although strategy process is informal in SMEs the strategy process as described in theory exists in this context. However the language SME managers are using are different than the theory. If we change the language SME managers are using, the findings of this study would map on theory more clearly.

I have provided rich examples grounded in practice which shows SMEs are engaging with all of the activities in the strategy process with varying emphasis on phases and activities via different process compositions. The strategy process works through cyclical and iterative activities which interact dynamically so as to put the strategy process into work. This study discovered some original and robust insights and dimensions of the dynamics of the strategy process in SME context.

6.8 Summary of Chapter 6

Chapter 6 dealt with large amount of qualitative data gathered from four case studies investigated in this research. Firstly, the researcher analysed the data from within-case analysis followed by a cross-case analysis in order to organise and make sense of this rich data through sticking with facts. My aim was to organise my data by adopting Maxwell (2005) approach (Figure 6.8).The techniques used are coding and thematic analysis. Commonalities across cases are demonstrated in this chapter but more detailed cross-case analysis tables are put in the Appendices. In this way, data analysis is triangulated by carrying out pattern matching via conceptually ordered maps and coding via taxonomy, coding book, stories and examples from

cases. Data also triangulated (Yin, 2003) via multiple-interviewees and multiple-researchers, interpreting multiple-sources and peer-reviewing for outer control.
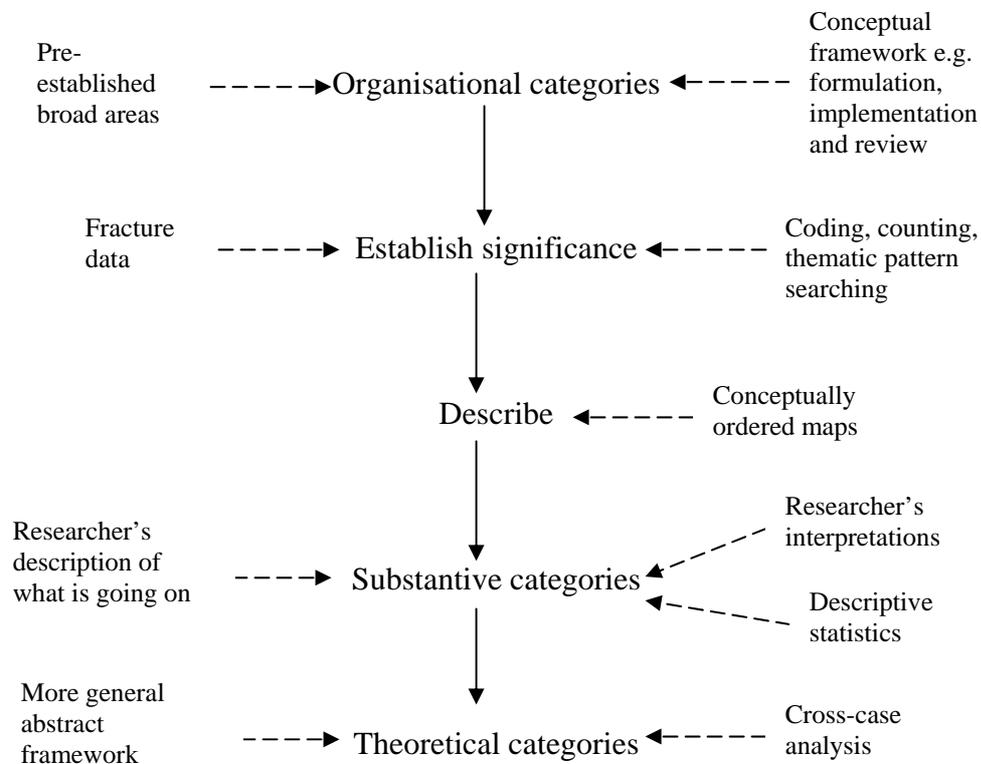
Figure 6.8. Qualitative data design summary (Adapted from Maxwell, 2005)

Then, this summarised the main findings of this research. The final sections provided clear and explicit answers to the emergent research questions developed in Chapter 2 outlining the basis of this thesis. The next chapter will aim to deal with interpreting data analysis results, reaching closure via discussing research findings with going back to literature and explaining contribution to theory and practice as well as evaluating the overall quality and validity of the research findings.

7. DISCUSSIONS

With the previous chapter, the research objectives have been achieved by providing explicit, rigorous and unambiguous answers to each of the research questions that have motivated the researcher to carry out this study. Now, the contributions and implications of my thesis need to be summarised. Also, an extensive research project calls for some retrospective reflections as well as ideas for future research.

7.1 A Critical Review of the Research Objectives

The purpose of this thesis implied an ambition to theoretically and empirically contribute to the fields of strategy in manufacturing SMEs. The comprehensive material of this study also makes empirical contribution by enhancing our knowledge regarding four SMEs which managed to survive in a difficult environment for manufacturing companies where threat from low cost countries affecting businesses negatively. Finally, this thesis points at a number of issues that should be interesting to consider in managerial practice. I will present these original contributions and implications of my work on the following pages.

As a reminder, this research aimed to answer the broad research question: *How does the strategy process work in SMEs?* In order to understand and clarify the strategy process in an SME context, firstly it was necessary to answer the following research questions:

1. What are the key activities that are carried out by manufacturing SMEs in the strategy process?
2. What is the key focus of the strategy process in the context of manufacturing SMEs?
3. What strategy tools, techniques and methods are being employed in manufacturing SMEs?
4. How do strategic initiatives and decisions lead to implementation in manufacturing SMEs?

The researcher conducted the research to answer the above research questions in two parts:

- Literature review of strategic management in manufacturing SME sector and a literature review of wider area in strategic management
- Empirical research in four manufacturing SMEs

The literature review pursued a systematic literature review process (Tranfield et al., 2003) with including additional text book and journal articles that were overlooked by databases. Empirical investigation aimed to achieve a better understanding of the theory in the light of observed results. Four case study companies were identified, all of which were independent (non-subsidiary) manufacturing SMEs from similar sizes (medium-sized) in terms of employee numbers in the UK.

It is worth noting that the researcher progressed against the objectives throughout the research by following the defined research methodology in Chapter 4. A careful literature review set the boundary of this research and guided the empirical work. Four case studies provided very interesting insights into the topic. Qualitative data was analysed through multiple-researchers, multiple-cases and multiple-sources for triangulation purposes and the findings were proved to be reliable following a peer review process. The researcher believes that this is a good quality piece of research as demonstrated in Table 7.1, but there are limitations to this research similar to other research projects that the researcher will mention later in this chapter.

7.2 Discussions on Findings

Here I am going to discuss under various themes what I observed from data by giving company examples in the first paragraph followed by how this relates to literature in the second paragraph. My findings may agree or disagree with literature therefore a discussion between my empirical findings and the literature will enable me to enfold literature. I will discuss my key findings upon the strategy process specific to SME context. Therefore many points confirming literature will not be the focus of discussion in the following sections. As a result, this will lead me towards original contributions of my research.

7.2.1 The usefulness of a process theory in this study

How strategy process works in an SME context is an important question because I observed that SME managers not necessarily talk about strategy formulation,

implementation or review, which is crude way of referring the strategy process, in the interviews. They do not work on strategy either. However, I noticed that understanding their language in strategy was important. For instance, in Blairs "from thought to finish" philosophy meant "formulation to implementation" in their strategy process. Starting with a guiding conceptual framework grounded in theory decomposed strategy process into activities (Figure 2.4). Those organisational categories (Maxwell, 2005) helped me understand SME strategy process which is fractured to activities that SME managers were more comfortable to mention. I found that even though strategy is not managed as a formally defined process with process measurements indicating performance levels in SMEs, there is evidence that SMEs engage with strategic activities. As a result, this research indicates that process theory is proven to be valid and useful in this research.

7.3 Theoretical Contribution

Theoretical contribution of this study is outlined in the previous chapter by providing explicit answers to the research questions; however answers to the research questions not necessarily lead to theoretical contributions. My findings confirmed literature in many points. For instance flexibility, operational excellence, effective use of limited resources and opportunity seeking were among key focus of the strategy process across four SMEs. Although my aim was not to compare the strategy process in SMEs and larger companies or small/ micro businesses, I have gained some important insights into **distinctive focus and activities** common to manufacturing SMEs different than large firms. As suggested by Hudson-Smith & Smith (2007) SMEs exhibit different characteristics from larger organisations. These differences are commonly perceived as being a consequence of the structural and cultural environment that these firms operate in. Their culture and structure typically defined by their size, competitive position and individualised strategic management practices. I believe I have shed light on distinctive features of the strategy process in SMEs which should be addresses in future studies. I will use Whittington (2003, 2006) framework to draw my original theoretical contribution. Consequently those are the areas particularly SMEs were different in the strategy process:

- ***Strategy practitioner.*** Even though I did not aim to understand leadership and management style issues in manufacturing SMEs, I have discovered that SME managers are holding *multiple-functions* when managing the strategy process. This might be a distinctive feature of the strategy process in SMEs. Strategy process in SMEs is highly dependent on individuals and their commitment. This might be due to having personal and financial interest in the business; however those contingencies are not investigated in this study.

- ***Strategy process and activities.*** Strategy process in SMEs is informal with limited published strategy documents. It is intuitive (Beaver & Prince, 2004) but not chaotic with undefined tasks. This might be due to investigated SMEs being medium-sized rather than being small/ micro businesses as well as being professionally managed businesses rather than family-owned businesses.

SME strategy process is managed from both a top-down and a bottom-up approach. This implies SME strategy has both emergent and planned aspects rather than being chaotic. Although strategic initiatives and decisions (unit of analysis) varied across four SMEs investigated, the activities they engage with were similar. This proved the usefulness of the processual theory in an SME context which suggested that there is a process (intended set of activities) of what is emerging (strategy outcomes) (Ackermann et al., 2005). An example quote from Bill Dickie, Houston Co-pack also sets the grounds of this conclusion beautifully: *"My boss always told me - just keep doing the right things, then performance follows".* The only differentiating factor found was the emphasis the SMEs put on the activities and phases in the strategy process. This emphasis was configured at different levels. At a general level analysing the external environment and defining grand strategy and goals were where the majority of emphasis was placed. This may imply that SMEs which manage to survive in a challenging environment for manufacturing companies are *externally oriented* and they have *strategic awareness* because they strongly do strategic planning and develop goals to direct the operations.

The strategy process also has a particular focus on *diversifying the customer base because the investigated SMEs were dependent on a few major customers*. They wanted to reduce this dependency. Their strategy process therefore focused on improvement suggestions to the customer products as well as offering them services

(e.g. design, warehousing and logistics) so as to establish longer relations and to persuade them to pay more for the added value- service. This distinctive focus in the strategy process may have been associated with manufacturing SMEs in the UK trying to cope with the threat emerging from the low cost countries. This solution was deemed to be important in SMEs because they wanted to attract the customers not only on a low cost basis but also through offering a reliable long term service with added benefits.

Investing into new systems, equipments and buildings was also a special feature in the SME strategy process. The firms were expanding their business by increasing capacity, redesigning factory layouts, moving to larger sites overseas or locally. Another distinctive focus in the strategy process was organisational restructuring regarding roles and responsibilities in SMEs. Reorganising organisational charts was aimed to free up more time to the MD and other senior manager so as they can deal with more long term strategic issues. This conclusion may have been reached because the investigated SMEs were growth oriented and they managed survive over years by regenerating their business.

Finally *convincing lenders and maintaining close and honest relations with them as well as bringing in external expertise from the universities and government bodies* were distinctive focuses in SMEs. Managing cash and benefiting know-how from external sources were important distinctive features of the SME strategy process.

▪ **Strategy tools, methods and techniques.** Strategy tool and method adoption is generally poor in SMEs. Their strategy process does not heavily rely on quantitative techniques and measures. Indeed, Burke & Jarratt (2004) suggest that formulating strategy in small firms does not reflect exhaustive strategic analysis, but rather, a personality driven, opportunistic or instinctive approach, channelled through an emergent planning process. However I found that some tools and methods such as SWOT, Benchmarking and budgeting are commonly used in SMEs which may not be distinctive to SME context though.

I conclude that the above distinctive features may not be generalised but I believe those areas I pointed at shall provide insights for future research. Although my objective was not to compare SME strategy process with large company strategy

processes, my previous work experience working in a large manufacturing company, educational background, additional learning working as researcher in the larger project since 2005 and investigating 37 SME-like companies as well as literature learning that is heavily based on large company practices helped me draw the above conclusions. The present study pointed at some distinctive features of manufacturing SME strategy process. However these conclusions and implications should be further tested out across larger samples.

7.4 Contribution to Practice

The purpose of this thesis has not been to arrive at normative suggestions for practitioners in manufacturing SMEs. However, the understanding of strategy process I have outlined can be applied. Below, I summarise a few issues this study highlights and that can be fruitful for practitioners to consider. These points are enriched with examples grounded in SME practices and aim to provide guidelines to manufacturing SME managers.

- *An emphasis on external environment and external orientation*

Firstly, the data suggest that SMEs seem to be putting a significant importance on 'analysing the external environment'. They do this via monitoring and communicating with customers, suppliers, stakeholders, banks and legislative bodies as well as universities in regular meetings. They participate in tradeshows to follow new technologies and to communicate with potential suppliers, customers and competitors. Word of mouth is a commonly used method to collect information about the external environment. SMEs also follow industry publications and keep an eye on economic trends, sectoral, market and industry legislative changes affecting their business. For example, in Blairs market research was conducted by an external market research company based in London. This company carried out a survey to understand the market needs and the perception about Blairs. Via the survey results, Blairs analysed the environment to understand what the market was buying and in which location, and where Blairs was standing in the market. Market research led the Company to understand who their customers are (maintenance managers and development managers rather than architects and contractors only). They plot the industry cycle to follow demand because the business is weather dependant. The

engineers are sent to exhibitions and **trade shows** in Europe to gather market information as well as new product and process information. Moreover, environmental analysis is an ongoing activity and the Company purchases published data related to industry regularly. Similarly in TFC, a huge effort and emphasis is placed on monitoring customer requirements and satisfaction. The quality manager, sales team and even operating staff all have face to face conversations with the customers on a monthly basis and a weekly telephone update at a minimum. This data feeds into both the short term and long term decision making of the organisation (More examples from the companies can be found in Appendix IIIA, B, C and D Coding Tables).

This finding is in agreement with the literature. SMEs analyse the environment and gather, assimilate and process information as an input to their strategy process as suggested by many authors (Ginn & Sexton, 1990; Analoui & Karami, 2002; Côté *et al.*, 2005; O'Regan & Ghobadian, 2006). For example, O'Regan & Ghobadian (2006) and Wassim & Alain (2005) and Cooper (1981) suggest that operating environment, impact of change in the environment (Fuller & Lewis, 2002) and environmental uncertainty (Van Gils *et al.*, 2004) influence strategy management in SMEs. Also, Côté *et al.* (2005) investigated SMEs regarding e-business strategic management process based on the traditional model of strategic management. They suggest that it is a systematic process consisting of four interrelated steps; analyse the external and internal environment; select the e-business strategy; implement the e-business strategy and evaluate the success of the e-business strategy. Badri *et al.* (2000) supports our findings similarly and express that environmental factors such as labour availability, competitive hostility, government laws and regulations, political concerns and market dynamism and the operations strategy choices encompasses by competitive priorities. Most firms accept their environment as given and install the mechanisms to react to its forces. High performers match the complexity of their environment by utilizing environmental variables as sources for effective controls within their organisations.

Consequently, environmental scanning is generally viewed by strategic management scholars as a prerequisite for formulating effective business strategies (Beal, 2000; Analoui & Karami, 2002). As shown above comparison between theory

and practice I can conclude that there is a significant body of literature recognising that 'analysing the external environmental' is an important strategic activity. In the investigated manufacturing SMEs the environment is characterised as being fierce due to the threat emerging from low cost countries. The difference lies in how SMEs were reacting to threats and opportunities in the environment. For instance, TFC and Cemtron both are operating in electronics industry in the UK. The environment is similar for both of the SMEs, however TFC made a strategic choice and preferred to partner up with an Eastern European manufacturer whereas Cemtron preferred to shift manufacturing overseas. The empirical findings also provide a confirmation of existing literature in this area as a contribution.

- *An emphasis on defining strategy and goals and strategic awareness*

Defining grand strategy and goals appears to be a significant activity in SMEs. The management of strategy in TFC is an area which continues to evolve. Approximately five years ago TFC changed its strategy. When the business operated in a high volume market, the approach to strategy was static i.e. year on year there was little variation in the business other than the demand profile. However, as the complexity of the business has increased significantly, the effort and involvement required to deploy the strategy developed by the board has also had to increase. Thus, in the period of 2000-2001, TFC started to develop and implement new strategies to meet today's market conditions and to cope with the competition. Long term strategy is set by the Directors i.e. where to invest in strategic partnerships. A more reactive, short term strategy setting is conducted by senior management team with the directors implicitly agreeing. The Company strategy change from being a very clear high margin, large batch, small number of customers strategy to almost the polar opposite, the value propositions of the business have changed significantly with the full endorsement of the board of directors. The new strategy is that they are no longer a straight-forward manufacturing organisation but instead are a *service provider* to an increasingly diverse and demanding customer base. TFC has seen an opportunity in being flexible to meet customer requirements. They also recognise the opportunity for profit in flexibility – customers can be willing to pay more for things to be done their way, depending on their individual situations. TFC made a decision to outsource high volume manufacturing and form a *partnership with an Estonian*

manufacturer so as to shift mass manufacturing there while keeping high value add services in the UK and continue to benefit from the location advantages of Scotland. In SMEs it seems that developing vision and mission statements as a sub-activity under defining grand strategies are common practices. Accordingly, for example, Houston Co-pack states that it wants to be the leading provider of spirit packaging services to the whisky industry and to be good value for money in providing this service as its vision. Their aim is to take the hassle away from big distillers. In Cemtron, strategy serves the purpose of explaining how to pursue opportunities and to enable staff to understand the core elements of the future business as well as how to get there. The mission statement is – "*Cemtron Limited aims to provide competitive, customer driven, total quality solutions to the electronics sub-contract manufacturing sector*".

In wider strategic management literature, defining grand strategy and goals means defining overall strategy and goals pursued by the organisation such as stability, internal growth, external acquisitive growth, diversification, retrenchment etc (Hitt *et al.*, 1982; Bracker *et al.*, 1988; Pearce & Robinson, 1991; Lyles *et al.*, 1993; Berry, 1998; Singh *et al.*, 2006). However, SME specific literature puts less emphasis on business goals and grand strategy development. Some authors studied strategic goals (Dean, 1986), short and long term goals (Soderquist *et al.*, 1997) in SMEs. In addition, a study by Duchesneau & Gartner (1990) looked at leadership styles of SME managers and entrepreneurs and concluded that in order to reduce risk in business; they work long hours, have a personal investment in the firm, and are good communicators. Successful firms were those pursuing ambitious *goals*. Lead entrepreneurs have a clear broad business idea which provided the guidance required to overcome adversity, confrontation, and often a troubled financial condition. In addition, some authors investigated vision and mission statements in SMEs. For example, Aragon-Correa *et al.* (2007) discovered that strategies are associated with three organisational capabilities: shared vision, stakeholder management and strategic proactivity. Likewise, Toftoy & Chatterjee (2004) investigated mission statements of small businesses.

Even though wider literature on strategic management accentuates this strategic activity, SME specific literature appears to be thin on goals and grand

strategy setting, mission and vision development. This research made a contribution through extension of theory into a new data set from four SMEs as well as providing theoretical reflections on practice.

- ▪ *The importance of execution of strategy, human resources allocation and alignment as well as communicating and managing strategic change*

Firstly, **executing strategy** appears to be a significant activity in the strategy process in the investigated SMEs. Executing strategy in this context is deploying strategic plans and decisions and initiatives via making the plans happen thorough quantifying the vision, planning results and progress management. For example, in Blairs a project by project management approach is implemented to achieving goals and objectives. Board members took transparent roles in projects to increase visibility of the projects in the organisation. Also, Blairs have a very strong linkage between projects and strategic initiatives and successfully deploy those initiatives through tight financial controls. Similarly, in Cemtron 5S and quality improvement programmes are deployed in order to put strategy into practice. Organisational performance is measured based on balance sheet and customer satisfaction surveys. Departmental performance is measured based on customer perception, informal feedback from supply chain, financial terms, and balanced scorecard. In TFC strategy execution placed the emphasis, at a micro level, on customer service and meeting the absolute demands of the customer has led to a real competence being developed in reacting quickly to changes in customer requirements. Furthermore, to support the customer service drive, a modular, flexible infrastructure is being developed to replace the current rigid layout.

Similarly, existing research on the execution and deployment of strategic plans and decisions (Banfield et al., 1996; Kaplan & Norton, 2000; Zagotta & Robinson, 2002; Fields, 2006; Pelham & Lieb, 2004; O'Regan *et al.*, 2005) explains the significance of execution. For example, Zagotta & Robinson (2002) suggests that good strategic plans are worthless if you can not make them happen. They also put forward some criteria for successful execution such as quantifying the visions, communicating strategy through mantras (mantras are small slogans encapsulating strategy in 'one shot dose' – examples like 'jump on's in TFC and 'the answer is yes,

now what is the question' in Blairs), planning results not activities, plan what you are not going to do, open strategy to the organisation, automate status and progress management, creating a virtuous circle of execution and strategy.

Subsequently, execution of strategy is as important as strategic planning if not more important. Both the data collected in this research and several studies in literature show significant emphasis on this strategic activity. The findings here confirm existing theory and give specific examples on a set of SME companies providing further insights into the topic and contributing to the understanding of practices in SME companies.

Secondly, this research data analysis has addressed the **allocation of resources** regarding financial planning and budgeting, workforce alignment and specifically to SME sector investing in new equipment, systems and buildings. The data analysis suggests that SMEs are putting emphasis on this activity but not as much as they do to the first four activities. For instance in Blairs, managing cash flow to keep the business alive is an important strategic activity. They try to achieve a well–managed financial stakeholder interface to generate loans to support strategy. The overall strategy during the first four years from 1997 was survival and this was achieved by very tight financial control with accountability to the managing director (MD) for any expenditure. This culture continues and the expenditure on improvement activities is very focused towards a few projects at a time so that they can be easily controlled and executed. This means that cash flow does not become an issue as often as it does in other SMEs. Also workforce alignment was a significant activity during business turnaround in 1997. The MD removed the obstacles to the new vision to keep like minded people in the organisation so as to ensure the vision was shared. The MD categorised the employees into three groups: warriors, terrorists and passivests (people who were passive and not contributing much to the organisation). He kept the warriors and some of the passivests and removed the terrorists who resisted the changes necessary and did not contribute to the business greatly. Similarly in Cemtron, the MD and the Financial Controller look at sales, revenues, the capacity and profit before tax at the beginning of a year to formulate a plan. Maintaining decent payment terms for suppliers and customers whilst managing cash flow is taking a lot of management time. Also, Houston Co-pack

measured each job's profitability and realised that certain jobs were no longer economical to do and this has led to emergent strategies and investment in developing a bottling business and in IT systems to link all departments.

In SME specific and wider strategic management literature the allocating resources activity deals with marshalling resources and initiating actions to pursue opportunities rather than only reacting to other people's actions (Green & Jones, 1982; Kaplan & Norton, 2005; Neshamba, 2006). The findings of this research agree with literature regarding resource allocation. SME specific literature also talks about resources such as networks, knowledge, and background (MacDougall, 2003) in SMEs. However the majority of available literature talks about resource scarcity in SMEs as a constraint to strategy process (Celuch *et al.*, 2007; Burke & Gaughran, 2006; Wesson & De Figueiredo, 2001; Thakur, 1999; MacDougall, 2003; Dean, 1986; Hudson-Smith & Smith, 2007; Savioz & Blum, 2002; Martine, 2003; Kennedy & Keeney, 2006; Alon, 2004; Qian & Li, 2003) without necessarily exploring how to allocate resources either human or financial. For instance, Wesson and De Figueiredo (2001) argue that entrepreneurial businesses suffer from severe resource constraints because their choice of breadth of focus will have profound effects on the resource requirements of the business. Similarly Thakur (1999) and Neshamba (2006) suggest that limited resources can restrict the choice of opportunities exploited and growth potential in SMEs. However, Allio (2006) draws attention to the steps in the strategy process in SMEs and suggests that strategy process helps MMBs (middle market businesses) understand their competitive position, chart a short and mid-term path, set priorities for *allocating resources*, and resolve critical implementation issues. Green & Jones (1982) also add to the argument that strategic planning, strategic development and decision making and resource allocation are steps in the strategy process in SMEs.

Subsequently, literature and empirical findings both agree that resource allocation is a significant activity in SMEs. The contribution here is emphasising not only the poor resources available in SMEs but rather how this activity is important in managing strategy via giving specific examples from practice. Thus, the contribution to theory is towards generating insights into practice.

Thirdly, the institutionalising strategy activity encompasses **communicating** and embedding strategy. Also the data has led the researcher towards some emergent activities carried out in the four SMEs; training and developing employees, fostering innovative ideas among employees and communicating changes with employees. For example, in Blairs they invested in people development via training programs to top up skills and qualifications through union negotiations. For instance, 'Systematic Inventive Thinking' training was organised to foster innovative ideas. Most importantly the strategy is directing everybody's daily job in Blairs. Clear responsibilities have been allocated to goals, objectives and KPIs to embed strategy. KPIs are put in place through discussions and persuasion with employees. The management team talked to shop floor staff to improve their working conditions. In addition, in Cemtron there are change management teams in the organisation. This is done through 'Change Leadership Program'. Formal cross-functional teams are set up as project teams. This is not their primary job but they meet and come up with cost saving proposals so that the employees are involved in strategy and changes. The management team talks to staff informally to communicate changes. However, they work on a communication process about what to communicate with whom and by which channel, for example, some people prefer visual communication via charts etc, and others prefer team communication. Finally in TFC, the senior management team can take a cost/efficiency hit through the activities they choose to engage in order to maintain customer service/relationships as per the strategic direction set by the board. For example, each manager described a "jump on", which is a term understood by all staff. A "jump on" is a top priority (usually last minute) customer request which is dealt with before all scheduled business - it hurts efficiency but maintains/enhances the customer relationship. These "jump ons" are acting like a common language around strategy throughout the organisation at all levels.

The research results are addressing a gap in SME specific literature in this area by providing further insights and explanations on embedding strategy and institutionalising it within the organisation via training, communication and people involvement. It is defined as an activity in wider literature as the organisational processes of performance measurement, compensation, management development, communication, all of them tangled in systems of incentives and controls must be

directed toward the kind of behaviour required by organisational goals and strategy. Also, communication involves creating a common language around strategy and for strategizing (Pearce & Robinson, 1991; Mintzberg & Quinn, 1992; Drozdow & Carroll, 1997; Beaver, 2002; Paroutis & Pettigrew, 2006). However only a few studies in SME specific literature highlights the above points in an SME context. Among the few studies Drozdow & Carroll (1997) talk about embedding strategy development in SMEs. Lipparini & Sobrero (1994) draw attention to a wide set of diverse competencies, such as personal networks and prior relationship in SMEs, that identifies possible sources of knowledge. Also, organisationally embedded learning capability plays an important role in achieving this. Banfield *et al.* (1996) highlight competence based training in an SME context and argue whether this is an expensive failure or not.

To conclude, institutionalising strategy appears to attract a significant attention from strategic management scholars however it seems to be still a developing body of literature in SME focused literature around strategy. The findings of this research, I hope, contribute to the extension of theory into an SME context.

Fourthly, **managing strategic change** is a significant strategic activity emerging from the data which suggested that SMEs are focusing on regenerating the business if necessary and put emphasis on managing changes so as to adapt changing business conditions. For example, in Blairs change management was done from a top down autocratic fashion removing all blockers to change and business turnaround among staff so resistance to change was eliminated. However, in recent years the Company is adopting a more democratic management style when managing change. Now the Company philosophy is 'to stay flexible but stop yourself being diverted once you have been decisive'. Likewise, in Cemtron management style is changing from 'umbrella style / top-down' to a more people involvement and development focussed style which is based on mutual trust. Also, defining roles and responsibilities and organisational restructuring appears to be important in an SME context. In Houston Co-pack, they appointed the warehouse manager to be the new operations manager. In addition to shaping a professional management team, bringing in a 'fresh pair of eyes' through the employment of a KTP (Knowledge Transfer Partnership) associate from the University of Strathclyde has been

important. '*Getting the right people in the right places*' has been important for Houston Co-pack. Repeatedly, in TFC two years ago, the business invested in external skills by bringing in two senior managers to shake up the culture and introduce change. Where necessary, the senior management team has sought to bring in external expertise to introduce systems and practices to manage change. For example, the senior management team ran a programme with Competitive Scotland at the University of Strathclyde and Ross International to up-skill the senior management team in "Kaizen Blitz" practice. Focus from the management team has helped affect a change from cynicism to acceptance – delivering on promises has made a real impact. To make change stick, key positions were re-staffed with people with the right attitude. Rather than setting an explicit *action plan*, the management team has engaged with the staff via a firm but fair general approach which has brought the organisation along with the changes in the recent years. This manifests itself as a competence within the business for change management and rapid customer response – impossible without a good relationship with the staff.

In literature, managing change refers to adapting to changing industry and organisational conditions. This process might involve reorganisation and various organisational changes. The wider literature in strategic management puts a lot of emphasis in change management (Duchesneau & Gartner, 1990; Antoncic & Hisrich, 2001; Kotter & Cohen, 2002). However, SME specific literature concerning strategy lacks the extension of change management theory in an SME context. In saying that, there are a few studies investigating strategic change management in SME context. Antoncic & Hisrich (2001) look at self-renewal dimension of entrepreneurs in organisations emphasising strategy reformulation, reorganisation, and organisational change (as well as in SMEs). Guimaraes (2000) investigates how to identify strategic problems and opportunities and to implement business changes. Soderquist *et al.* (1997) looks at the drivers for change and the short- and long-term goals, the sources of innovation and the nature of innovation management in French SMEs. Also, Fuller & Lewis (2002) study the impact of change in the environment.

To summarise, literature appears to be falling short on generating further insights into managing strategic change activity in an SME context. This research addressed the gap and contributed theory by generating insights into practice.

7.5 Assessing the research quality

So far, this chapter has taken the reader from the definition of the research problem to the original contribution to theory and practice. In order to achieve a high research quality standard, however, it is important to critically assess this research. This will demonstrate whether this research is valid or not. The research quality criteria for evaluating this research were discussed in Chapter 4. This section will discuss the assessment in more detail and this is summarised in Table 7.1 and Table 7.2.

This research ensured research design quality as explained in Table 7.1 in various ways against the quality criteria. In addition, it is also important to mention here that not only empirical work but also literature review and initial conceptual framework development prior to field work are also meeting good quality management research requirements. "Sound empirical research begins with strong grounding in related literature, identifies a research gap, and proposes research questions that address the gap" (Eisenhardt et al., 2007: 26). Indeed this research started with a careful review of strategic management and SME strategy literature and reflected on different influential authors view and developed a conceptual framework via combining different views in literature. This conceptual framework is strongly established in a rich debate around 'strategy process' and identified a gap in literature via recognising the lack of comprehensive context specific studies that look at how strategy process works in manufacturing SMEs. Then the researcher proposed further specific research questions to investigate this topic in the context of manufacturing SMEs. The conceptual framework deduced from literature and research questions guide the field work providing robust constructs to look at strategy process phenomena and ensuring research quality from the start.

Table 7.1. Summary of evaluation of research quality criteria based in literature

Research quality criteria	Case study aim	Case study tactic	How this was achieved in the research?	Where addressed in the thesis?
Construct validity	Are the correct operational measures for the concepts being studied in place?	▪ Use multiple sources of evidence ▪ Establish chain of evidence ▪ Have key informants review draft case study report	√√ Selection of multiple sources of evidence, data sources and methodological triangulation, enfolding literature, establishing a chain of evidence, structured reporting and independent peer review is carried out. Also strongly grounded literature based conceptual framework enabled the researcher to achieve construct validity.	Chapter 2,5,6
Internal validity	This research quality standard refers to setting up a causal relationship.	▪ Do pattern-matching ▪ Do explanation-building ▪ Address rival explanations ▪ Use logic models	√ This criterion is related to "explanatory and causal studies" merely, and not for "descriptive or exploratory" studies. This study is more theory extension and refinement to understand the theory in the light of the observed results, thus only pattern matching and explanation building were provided.	Chapter 3, 6
External validity/ Generalisability	Are findings applied in multiple contexts in order to test and to replicate?	▪ Use theory in single-case studies ▪ Use replication logic in multiple-case studies ▪ Seeking feedback from colleagues for outer control	√ Replication logic is employed via four case studies. That's why the findings are context specific and may not be entirely generalisable. Multiple case studies used to use the same conceptual framework and pattern searching in	Chapter 3,4,5,6

			different SMEs carried out through replication logic. I also discussed my research findings in conferences with a wide range of academics as well as my colleagues at University of Strathclyde for outer control.	
Reliability	Will similar observations be reached by other observers? Do data analysis and findings follow a clear process to avoid idiosyncrasy?	▪ Use case study protocol ▪ Develop case study database ▪ Seeking feedback from colleagues for outer control	√√ Early definition of research quality criteria, case study database, case study protocol, case study reports, cross case analysis, pattern matching, coding and frequency counting, enfolding literature and third party independent co-researchers who have intimate knowledge about the firms reviewed maps, case study conclusion reports and the interpretation of the researcher. Also conference papers enhanced the validity and reliability or my research findings.	Chapter 5,6
Contribution to practice	Are research implications and conclusions acknowledging policy makers or practitioners to help them in decision making into business or social issues?		√√ Useful guidelines provided to help SME managers manage their strategy via strategic activities and processes. Describe the SME context regarding strategy process to inform SME managers and policy makers	Chapter 2,6,7
Contribution to theory	What is the added value to what is	▪ Confirmation of existing theories ▪ Extension of a theory into new areas	√√ Identification and description of key features of	Chapter 2,6,7

	known already in literature? What is the theoretical basis? How the findings enfold literature?	▪ New conjunctions between previously separate theories or disciplines ▪ Advances in methodology ▪ Developments in the application of techniques ▪ A proof ▪ Disproving a null-hypothesis ▪ Generation of hypothesis ▪ Generation of grounded theory ▪ Generations of insights ▪ Theoretical reflection on practice	strategy process in manufacturing SME context. Identification of strategic activities in strategy process in SMEs Clarifying which tools are most commonly used in SMEs Clarifying the link between strategic initiatives, decisions and implementation plans in SMEs Ultimately developing further knowledge into SME strategy body of literature. As a result, this research has achieved a number of contributions to theory via confirmation of existing theory; extension of a theory into new areas; generation of insights and theoretical reflection on practice.	
Data/ research evidence	What counts for data in this research for an auditable, multi sourced research evidence?	▪ Organisational data ▪ Financial and performance figures ▪ Experimental data ▪ Reported perceptions (i.e. others, yours) ▪ Transcripts ▪ Field notes ▪ Documents ▪ Artefacts ▪ Created representations (e.g. cognitive maps, metaphors, narratives) ▪ Project processes and outcomes ▪ Workshop outcomes (captured using e.g. flip charts, response sheets, IT) ▪ Observations etc.	√√ Organisational strategy documents, away day minutes, company reports, field notes, research diary, electronic recordings of interviews, observations, coding and conceptually ordered maps are used as source of evidence to build explanations.	Chapter 5

√√: means YES this research quality criterion is achieved in this research
√: means TO SOME EXTENT this research quality criterion is achieved in this research

Then, the objective, throughout the research process, was to find reliable and robust answers to these questions. However, how can the researcher ensure that the right research process will be carried out? The answer is defining an appropriate research methodology and ensuring the research quality. The above seven research quality criteria derived from literature (Easterby-Smith et al., 2004; Eisenhardt, 1989; Yin, 2003a; Yin, 2003b) as well as the researcher's conversations with leading academics in PhD symposiums, academic conferences, methodology courses and university visits. These academics include Prof. Gerry Johnson (BAM 2007 PhD Seminar), Prof. Abby Ghobadian (Henley Management College visit 2007), Prof. Ken Platts and Dr. Steve Tanner (EurOMA 2007 PhD Seminar), Prof. Fran Ackermann, Prof. Nic Beech and Prof. Chris Huxam at Strathclyde Business School Research Methodology Course 2005. Also, academic papers are presented in various prestigious conferences in Europe and America which helped the researcher develop her ideas and ensure that her research is valid and approved by independent reviewers. Meeting the requirements of good quality research and getting comments and approval form the lead academics helped the researcher achieve a good quality robust piece of research.

Some of the academic conferences attended and examples of some comments from the anonymous reviewers are as follows:

- Ates, A., & Bititci, U. (2008). Strategy Processes and Managerial Activities Unfolding Strategic Initiatives: An Evaluation of Theory vs. Practice in Production SMEs, *British Academy of Management Conference*. Harrogate, UK.

Reviewer's comments (as original):

> This study is important because it is only one of the few studies on strategy process focused on UK based organizations. The findings of the study indicate that manufacturing SMEs give greater emphasis to the implementation phase of the strategy process. However there is difficulty in generalising the findings mainly because of the fact that only four organizations were included in this study. The study has not examined the impact of the strategy process activities on organizational performance. Thank you.

- Ates, A., & Bititci, U. (2008). Fundamental concepts in management research and ensuring research quality: Focusing on case study method, *8th European Academy of Management Conference*. Ljubljana & Bled, Slovenia.

Reviewer's comments (as original):

a. How clear is the research question ? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
b. How interesting is the research question ? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
c. How adequate is the research design ? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
d. How well do the arguments build on existing theory ? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
4
e. (If a large-sample empirical paper) How adequate is the sample? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
N/A
f. (If a large-sample empirical paper) How adequate are the methods? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
4
g. (If a case-based empirical paper) How appropriate are the examined cases? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
4
h. (If a case-based empirical paper) How tightly and objectively are the case-derived observations related to the proposed framework? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
i. (If a theoretical paper) How strong, well-developed and interesting is the proposed framework ? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
j. How well written and readable is the paper? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
k. How intriguing/original is the contribution ? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
l. Would you recommend this paper to your colleagues? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
m. Is this paper likely to contribute positively to your track? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
n. How positive is your overall evaluation of this paper? - *Scale 1:5 (1:Very Poor - 5:Outstanding - N/A:Not applicable)*
5
o. EVALUATION: considering the present version of this paper, it is : - *Custom Drop-Down*
Outstanding
p. Reviewer constructive comments - *Open Question - Free Text Field*
This is a very thought paper which is well researched and exceptionally well written.

In addition, the researcher presented a number of papers in international conferences to discuss research results starting early stages in the research with

academic peers. Appendix VI gives a list of publications accomplished in this research so far.

In this research I used multiple case studies because I aimed to understand behavioural and historical aspects of the strategy process rather than a snapshot. Hence, Table 7.2 summarises how my research met the research quality criteria set for case study research as explained in Chapter 4.

Table 7.2. Process of building theory from case studies (Eisenhardt, 1989)

Step	Activity	Reason	This research
Getting started	Definition of research question Possibly a prior construct	Focuses efforts Provides better grounding of construct measures	√√ RQs and literature based conceptual framework development
Selecting cases	Neither theory nor hypotheses Specific population Theoretical not random sampling	Retains theoretical flexibility Constraints irrelevant variation and sharpens external validity Focuses efforts on theoretically useful cases – i.e. those that replicate or extend theory by filling conceptual categories	√ Four case studies selected. They are all independent, medium sized manufacturing SMEs and located in the same location (Scotland, UK).
Crafting instruments and protocols	Multiple data collection methods Qualitative and quantitative data combined Multiple investigators	Strengthens grounding of theory by triangulation of evidence Synergistic view of evidence Fosters divergent perspectives and strengthens grounding	√√ Case study protocol, coding book are used. Multiple researchers triangulated data at different levels i.e. data collection, data analysis, interpreting results
Entering the field	Overlap data collection and analysis including field notes Flexible and opportunistic data collection methods	Speeds analyses and reveals helpful adjustments to data collection Allows researchers to take advantage of emergent themes and unique case features	√√ Data is collected as part of the larger project initiative from an opportunistic way
Analysing data	Within case analysis Cross cases pattern search using divergent techniques	Gains familiarity with data and preliminary theory generation Forces researchers to look beyond initial impressions and see evidence through multiple lenses	√√ Within case and cross case analysis are performed via mapping and coding techniques for triangulation purposes

Shaping hypotheses	Iterative tabulation of evidence for each construct Replication, not sampling, logic across cases Search evidence for 'why' behind relationships	Sharpens construct definition, validity and measurability Confirms extends and sharpens theory Builds internal validity	N/A
Enfolding literature	Comparison with conflicting literature Comparison with similar literature	Builds internal validity, raises theoretical debate and sharpens construct definitions Sharpens generalizability and raises theoretical level	√√ Comparison with literature is done
Reaching closure	Theoretical saturation when possible	Ends process when marginal improvement becomes small	√ Common patterns explored across cases, however more case studies may be required for theoretical saturation.

√√: means YES this research quality criterion is achieved in this research
√: means TO SOME EXTENT this research quality criterion is achieved in this research

7.6 Limitations

There is always a boundary to what a researcher can accomplish during a research study. Being aware of the limitations of a research strengthens the validity of the findings and the robustness of the research process. The limitations of my thesis are related to results and methodology.

Firstly, the findings are based on four case studies which might be criticised to be insufficient to generalise the findings. However this research discovered robust and powerful context specific insights and dimensions of strategy processes in manufacturing SMEs. I treated data objectively and tried to avoid putting my own interpretations when analysing the data through discussing my findings with peers, triangulation of data and applying saturation principles.

Indeed, even if SMEs are not the unit of analysis in my thesis, the choice of organisations where to look for cases is of course a critical step in the research process. When it comes to the number of organisations, there is a trade-off between the possibility to cover a great variety of different processes and the willingness to achieve depth. An important issue to consider is the kind of generalisability one wants to achieve with the research. My aim with this piece of research is neither to generalise statistically across populations of firms nor to make a comparative study, although I do not deny that this thesis may contain comparisons. Primarily, I wanted to contribute to theory by further shedding light on the strategy process in manufacturing SMEs. Hence, it becomes important to get through understanding of the context specific processes and activities I study, so observations from four different SMEs in parallel can help to see phenomena that appear clearly in one of them, but may be more hidden in another. Observations from different SMEs may thus put up questions, confirm or question assumptions and inspire reflections about each other. I have thus chosen to study cases from four manufacturing SMEs. This number of case studies has given me the opportunity to dig deeply into each of them. At the same time, looking into cases with different products provided me with variation in my empirical material and enhanced the possibilities for cross-fertilisation across cases and across organisations.

Of course, cases from different SMEs would have led to different observations and probably partly different results. However, I believe that my cases

have resulted in interesting and robust dimensions and insights into dynamics of the SME strategy process that, on a theoretical level, can be generalised beyond the context of my study. I believe that my findings are objective mainly because I used case study method rigorously as much as possible. This was appraised by Prof. Chris Voss in Euroma 2008 Doctoral Seminar as:

> *Execution of case study method is perfect. You have almost 85% followed the process of doing case study research.*

Prof. Chris Voss, 2008

Secondly, even though pattern searching and data coding exercises during data analysis is peer reviewed, the interpretations still remain subjective to me. I tried to overcome the subjectivity in my interpretations by designing a case study protocol, writing up case study reports following the same template, triangulating data from multiple sources (face-to-face interviews, company strategy documents, archival records, desk research and direct observations), using recognised quality data analysis techniques such as conceptually ordered maps, pattern matching within and cross cases, coding, counting (frequency of occurrence) and verifying the findings with colleagues who have extensive knowledge of the investigated SMEs at Strathclyde University and academic conferences. Data analysis techniques helped me establish significance on organisational and substantive categories in order to draw more abstract or general theoretical categories for theory development (Figure 6.8 in Chapter 6).

Thirdly, I did not aim to investigate the impact of contingency factors such as luck, 'being in the right place at the right time', leadership, personal interest in the business, family run businesses and so on in my research. Within my theoretical framework, those contingencies are not addressed as a primary concern. However, I recognise that those factors have a big impact on how strategy is managed and how the strategy process works in SMEs. Within the scope of my research those factors left aside because mainly the research objective could potentially be very big to achieve in a single doctoral thesis. Thus, the impact of the contingency factors on the strategy process in SMEs is left for another PhD thesis as a suggested future work.

7.7 Future Research Directions

At the end of a doctoral thesis, there are often more questions than at the beginning. New knowledge generates new questions and the present research is no exception. I will address those questions that I find most interesting for further research here. Before making suggestions for future research for other researchers, I would like to mention about my plans to take this doctoral work one step further in near future for possible publications. I believe I have achieved some interesting and original contributions in the present study. As a further work, I want to look at the case study database formed for 'Manage Processes Project' at Strathclyde University which covers 37 companies. I want to further compare SMEs with large companies in order to strengthen my findings about distinctive features of the manufacturing SME strategy process. I am planning to use the same theoretical framework and the same research design. I also can compare SMEs from different contexts and countries to see whether the findings of this study are relevant to different countries. Finally, although survey research was ruled out for this study, I gained several robust phenomenological insights on the topic. The next stage to this research would be carrying out survey research on a larger sample to understand strategy processes in SMEs.

This study has several implications for future research. Firstly, further work in this field might explore more thoroughly the full array of activities within the strategy process in manufacturing SMEs. This can be done by designing longitudinal case studies, grounded approach based research, action research or anthropologic studies where the researcher can observe managers in their day-to-day jobs and in strategy away days. In addition, it would be very interesting to see whether the current findings for independent medium-sized SMEs differ or not for *subsidiaries* of large companies with similar sizes.

Secondly, future research could also examine the role of contingent factors such as size, composition of management team (family versus professional management team or mix of two), luck, personal interest in the business and leadership in SMEs and explore manufacturing and service or mix of both types of companies in order to understand the distinctive features of the SME strategy process

further. Also, independent SMEs can be compared with subsidiaries of large companies to see differences in the strategy process.

Thirdly, future research could use different performance measures to capture link between performance and the strategy process. Moreover, to capture performance and the strategy process link in SMEs, researcher should establish reliable performance measurement techniques to explore this link. This type of further work could develop normative practice models explaining successful company practices in the strategy process compared to low or medium practices emerging from lower performing SMEs.

7.8 Some Personal Reflections and Lessons

After just about three years of work it would be a disappointment if either of the following two pictures were true: if I regretted so much of my work that I came to the conclusion it had all been a waste of time or if everything had gone so effortlessly that I had not learned any lesson while working on my thesis. Fortunately, neither of these two scenarios is true. I believe that the results of the thesis are interesting. Still, not everything in the process turned out originally expected. I will therefore conclude with some personal reflections on my work.

First of all, I became unsure about my initial conclusions and I had to revise standpoints in the interpretation of my cases several times. Different conference papers I have written during my thesis process bear witness of my changes in my opinion. For instance, I struggled a couple of times with the definition of an SME. It came to me initially as a wide definition spanning small to medium sized companies and I could not make sense how companies employing 10-49 people could be considered as similar to companies employing 50-249. Literature talked about empirical papers based on SMEs not necessarily giving explicit number of employees in those companies investigated. As a result, I was not sure about my tentative findings because my case study companies were medium-sized, thus were dealing with wider strategic issues and were more professionally managed. It was a struggle for me to link my empirical findings back to literature which also covers small-sized companies. I finally had to draw conclusions from this ambiguous picture and as a researcher I learned the importance of studying a phenomenon from

multiple perspectives. Against this background it was actually worth doing a large number of discussions with colleagues and reading piles of papers although this work was very time consuming.

Another issue that I felt somewhat unsure about in the beginning of my study was the choice and the number of organisations to study. Should another company or maybe two be added? The companies were available in the ''Manage Processes'' project database, myself and my colleagues developed over three years. Learning about an organisation takes time. In retrospect, I can hardly imagine that the greater variety of observations from an additional organisation would have compensated for the loss in depth I achieved in conducting four cases.

Hence, I do not regret many things about my research project. I believe I have many additional learning and experience into theory and practice by taking part in a multidisciplinary research team with various backgrounds (e.g. psychology, HR, operations management, strategic management and management science). I had the chance to discuss my doctoral research with the academic team at Strathclyde and in conferences as well as practitioners in case study companies. What I would have done differently, however if I were to redo my study would be to try play with data in order to make sense of it early in the process. Now, it took me fairly a lot of time to get started and to work out what exactly I was looking for. I do not ignore structure in data analysis. However, one should not wait until all previous work (literature review, research design and so on) before data analysis is neatly prepared. Because of the above reasons, if I were to redo my research, I would have adopted Grounded Approach through inductive case study methodology. There are far too many interesting grounds in the field one can get such as the issues SME managers are facing today and the reality of the research problem.

8. CONCLUSIONS AND KEY LEARNING POINTS

In the previous chapter, I discussed research findings in the light of observed results as well as literature findings in more detail. In this chapter I will summarise the key learning points of my research and conclusions of this thesis.

8.1 Research Conclusions

This research started with emphasising that manufacturing SMEs are important engines for the economy by providing major portion of employment and stimulating economic activity. However as literature pointed out common practices in SMEs regarding short terminism and a particular focus to merely financial performance are not enough for sustainable competitive advantage in today's global market place. Also poor strategic planning and a lack of focus to external and strategic issues were pointed out as the main areas for limited success of SMEs. Strategy as famously quoted by Mintzberg and his colleagues (1992) 'in the head of the entrepreneur or the owner-manager' seems to be a fuzzy and a multi-dimensional concept in SME context.

As a result, this research addressed a gap in literature regarding the need for better understanding how SME managers have taken up language and practice of strategy (Woods & Joyce, 2003). This research gap was also suggested to be addressed through research designs grounded on company practices rather than further theoretical conceptualisations (Ritchie & Lam, 2005). Schendel and Hofer's (1979) ground breaking definition highlighting strategy having processual and entrepreneurial character which is used to direct organisation's operations guided this research. A processual theory treating strategy emergent as an outcome and deliberated as a purposeful set of activities to realise those outcomes was adopted also. This view, as suggested by Richard Wittington (2006), rather than rejecting planned strategy, indicated the emphasis on injecting craft directly into the process. Consequently, this research aimed to understand how the strategy process worked in manufacturing SMEs.

In order to understand the above broad research question we needed to understand the activities within the strategy process. This research investigated this

topic by conducting four in-depth case studies which have been surviving in a challenging environment for manufacturing sector. Although the findings could be potentially criticised because they are grounded on four SMEs, it was felt that adding more case studies would not make a significant difference. In addition, 37 case studies conducted for the larger 'Manage Processes' project provided additional learning. I can say that the findings from the rest of the case studies from other European countries also suggest that the findings of this research are valid.

This study discovered that SME managers were more comfortable to talk about their activities rather than working on 'strategy', 'formulation of strategy' or 'implementation of strategy'. They were doing things but using a different language rather than adopting the academic language as pointed out in strategy theory. Therefore this study concluded that if we change the language that the SME managers are using, this study's findings would fit to theory. Besides, if the academics and researchers adopted the language of the practitioners, theory may enjoy wider acceptance among the SME practitioners.

For SMEs, a shared language is the requisite for a shared context necessary for social exchange in strategy process. If we are willing to address the question of how SME strategy is formulated, implemented and reviewed, we need to account for language games that deal with SME strategy. The implementation language is generally characterised by the use of concepts of talk relevant to everyday work practices (e.g. 'jump-on's in TFC Cables case study). The formulation and review language is mainly characterised by the senior managers and entrepreneurs (e.g. 'from thought to finish' in Blairs of Scotland case study).

When decomposing the strategy process to activity level, strategy process theory is found to be relevant in SME context. As a result, the following are the key concluding points of this research:

- The strategy process has a dynamic nature with some bits informal, emergent and opportunistic as well as having some bits planned and deliberated.

- SME managers carry out activities within the strategy process theory but they use a different language (e.g. 'from thought to finish' meaning strategy formulation to implementation). Therefore, strategy process theory is relevant, useful and valid in manufacturing SME context.

- Strategy is not managed as a formally defined process with process measurements indicating performance levels.

- Strategy process in manufacturing SMEs does not rely heavily on strategy tools, methods and techniques (i.e. SWOT, Benchmarking and Financial Analysis/ Budgets are the main methods used).

- SME managers carry out similar activities when managing strategy although the strategy outcomes might be different.

- The differentiating point was the varying level of emphasis on those activities within the strategy process.

So, the key conclusion of this research is:

Main stream strategy process theory is relevant in manufacturing SMEs however the *language* that SME managers are using is different than theory. Academic researchers need to understand SME managers' language in strategy.

e.g. "from thought to finish"….meaning "formulation to implementation"

The language in strategy management in SMEs follows a fashion more of Haute Couture (custom-fitted) rather than Prêt-à-Porter (ready-to-wear).

8.2 Key Learning Points

This section aims to condense the key research findings as explained more in detail in Discussions in the previous chapter into a framework that presents the strategic dynamics in manufacturing SMEs. In summary, the strategy process is very interactive. There are bits of systematic and bits of opportunistic/ emergent decisions, actions and outcomes around the strategy process in SMEs. Strategy management in SMEs does not reflect an exhaustive strategic analysis, but rather a leadership and customer driven, opportunistic, external market oriented approach which is channelled through both an emergent and deliberated set of activities. Strategy process is very much market based oriented rather than resources and capabilities. At the core of the SME strategy process there are *language* used in strategy making/ implementation and the *practitioner*'s role as wearing multiple hats. However,

competencies and strategy reviews do not seem to be emphasised significantly in SMEs. SME strategy process dynamics are presented in Figure 8.1.

Although SMEs may be criticised for ignoring the Resource Based View (RBV) of the firm, one could also suggest that SMEs are dependant on the customer that they have little choice but to concentrate on actions based on a Market Based View (MBV). Perhaps, SMEs could be better saved if academics and researchers recognised to look at SME practices from a contemporary market based view.
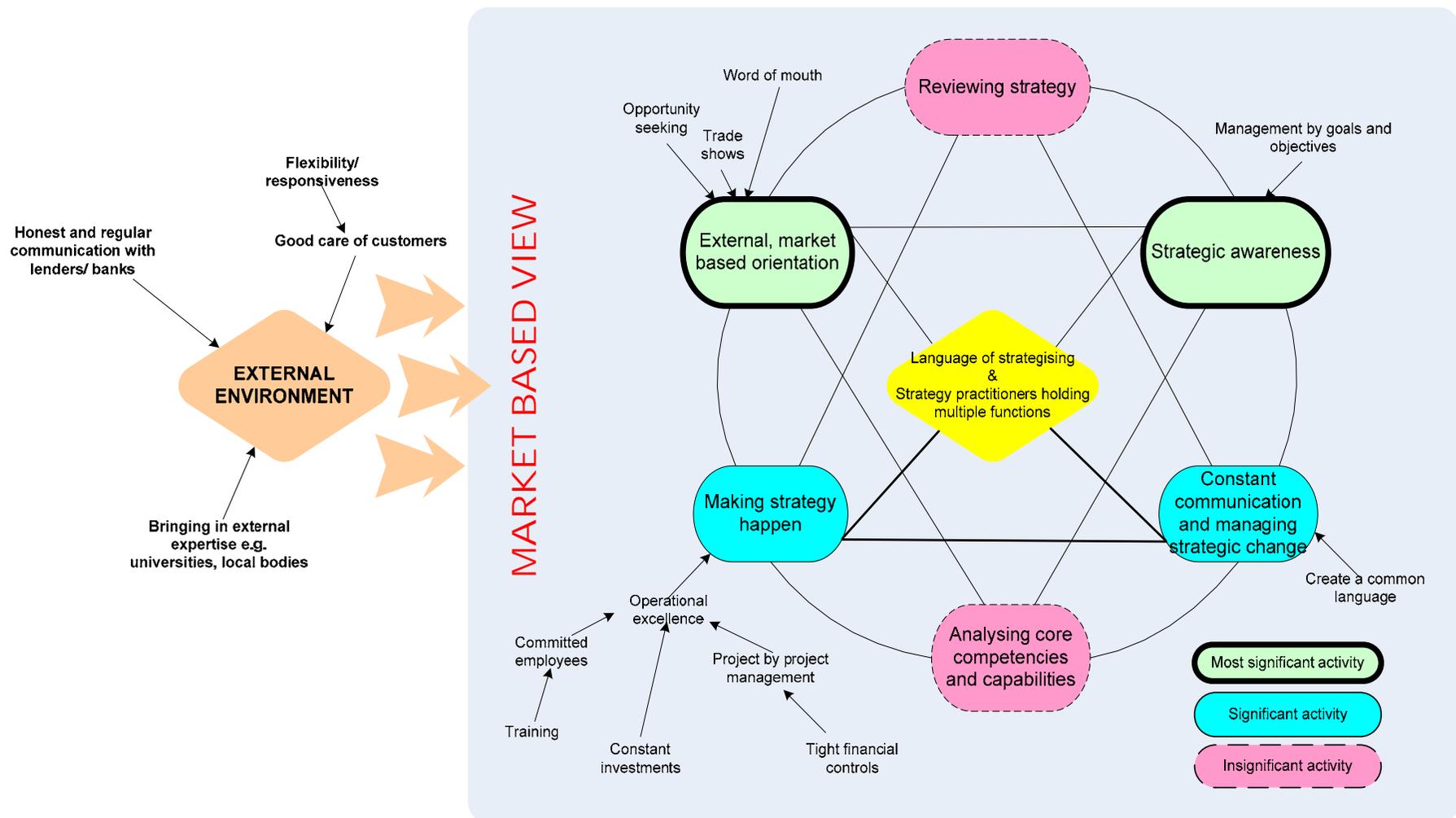
Figure 8.1. Strategy dynamics in SMEs

8.2.1 Implications for Theory

The research findings demonstrate both convergence and divergence from the main stream strategy management literature. Firstly, the trends in strategy management literature are shifting from a rational approach to a practice/ activity based approach (Whittington, 1996, 2006; Johnson et al., 2003; Jarzabkowski, 2006). In Chapter 2 the different stand points in different theoretical approaches to strategy was mentioned in Table 2.1. The following table summarises the emergent and deliberate nature of the different approaches to strategy process and strategy content (outcome of strategy) taking into account of the emerging trend of a practice/ activity based approach.

Table 8.1. Emergent and deliberate nature of approaches to strategy

	Rational Approach 1960s-1980s	Emergent Approach 1960s-1990s	Processual Approach 1980s-2000s	Strategy as Practice 1995s-ongoing
STRATEGY CONTENT	Deliberate	Emergent	Emergent	Emergent
STRATEGY PROCESS	Sequential Environment controllable	Messy Intuitive Environment uncontrollable	Deliberate Small steps merging into patterns A combination of internal and external environment focus	Emergent Practitioner Strategy tools Micro practices of strategising

The latest development in strategy discipline is the key focus to the 'strategy practitioner' in organisations. 'Strategy as practice' research stream defines practitioner at the core of strategy making and implementation. This trend is relevant to entrepreneurship strategy literature because SME literature has been publishing a significant amount of research regarding the role and characteristics of the entrepreneurs and owner-managers. The debate in SME literature is around the gender and other demographic characteristics of SME leaders and entrepreneurs. Besides, the language that SME practitioners are using in strategy management is pointed out in this research as an important topic to investigate further. If we translate the language of SME managers into theory, we would be able to see the

reflection of theory to practice more clearly. SME managers carry out the activities within the strategy process but not necessarily calling it strategy or formulation or strategy making or strategy implementation.

Second important implication for theory is that SME literature ignores the fact that SMEs are mainly operating within supply chains and therefore, they are almost like slaves for the larger organisations (customers). Therefore, a market based view to strategy (Porter, 1980, 1985) is more relevant to SME context. Mainly because SMEs see the exit from the risk associated with high degrees of dependency to a few major customers, through diversifying their customer base. As a result, the latest trends in main stream strategy management literature, Resourced Based View (Barney, 2001) and core competencies/ capabilities (Prahalad and Hamel, 1990) do not seem to be as relevant to SMEs as Market Based View does *in practice*. This key conclusion of this research may imply that researchers should look at an updated version of Market Based View (Porter, 1980) from a contemporary angle in SME strategy subject area. This research clearly concluded that MBV is more relevant with SME context, however it should be further researched whether a RBV or an MBV or a mix of both views lead to success of SMEs.

The current study concluded with robust dimensions and insights about SME strategy process through an exploratory research. Interestingly, strategy dynamics in SMEs (Figure 8.1) ignite some further interesting research questions to be addressed in future studies. Some examples are:

1. How can we develop a better understanding of the language of SME managers around strategising?

2. What are the determining contextual factors behind an external and market based focus in SMEs?

3. Whether and why external orientation and a focus to market forces are more dominant in successful SMEs rather than a resource based and core competencies/ capabilities views?

4. What is the role of strategy practitioners in the strategy process in successful SMEs? What are the characteristics of entrepreneurs/ SME managers and their leadership style in successful SMEs?

5. Is strategy management a stand-alone process? How does it interact with other management processes, operational and support processes in SMEs?

6. What are the differences between independent SMEs and subsidiary SMEs in the strategy process?

In short, strategy as practice and as a process (set of activities) does indeed exist in SMEs but mainly informally and predominantly based on the Market Based View of the firm. Further research is required to understand the strategy dynamics in SMEs as concluded in this study. The results of this research need to be packed and communicated in a language compatible to SME practitioners.

8.2.2 Implications for Practice

Finally this study has some implications and recommendations for SME managers that they can take away from this research that is readily relevant and applicable to their businesses. These are:

- SME managers should wear multiple hats rather than having a functional focus regarding roles and responsibilities

- SMEs should communicate with external stakeholders particularly customers, suppliers, lenders, universities and competitors. They should not take the environment as given. They should not be only internally focused.

- SMEs should be strategically focused rather than having a focus on short term financial performance only.

- SME managers should work on making strategic plans happen via committed employees, constant investments and communication. The strategy should not stay only in the head of the entrepreneur.

- SME managers should review their strategies so as to accommodate dynamic strategic changes and to ensure continued strategic relevance over time.

- SME practitioners will benefit from strategy theory implications and principles more if they can manage to close the gap between the academic language and their own language regarding strategy analysis, implementation, strategy tools and techniques.

- SME managers should develop a balanced view between looking at their organisations from outside-in (MBV) and inside-out (RBV). They should ensure continued strategic fit between external opportunities and their own resources and capabilities/ competencies.

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APPENDICES

Appendix IA. Glossary of Important Terminology Used

It is important to clarify the key ideas and concepts used in this doctoral thesis, so that the reader is clear about what she means when she uses them. For this reason, here are short definitions to introduce and explain the main concepts in the thesis.

- *Strategy:* Strategy is more a pattern of action resulting from whatever intended (deliberate) or unintended (emergent). Strategy could be something more than an explicit plan of action (Mintzberg, 1978; Mintzberg & Waters, 1985). Strategies are ways of pursuing the vision, identifying and exploiting opportunities, anticipating and responding to threats and changes. Strategy is about how to get from where we are now to where we want to be. It is a journey plan and a route map for travelling to the destination (vision) (Gill, 2006). Also according to Mintzberg and Quinn (1992:12)
  - Strategy as plan – setting some sort of consciously intended courses of action, guidelines to deal with a situation
  - Strategy as ploy – only a precise manoeuvre intended to outperform a competitor
  - Strategy as pattern – strategy is consistency in behaviour whether or not intended (e.g. Henry Ford offered his Model T only in black)
  - Strategy as position – consists of locating an organisation in the external environment and looks outside of the organisation
  - Strategy as perspective – looks inside the organisation and broadening the view of a chosen strategy
- *Business strategy:* Business strategy is the simple business logic which management use to explain to shareholders and the stakeholders how they see the environment changing and how their organisation will survive and grow (Banfield *et al.*, 1996).
- *Strategy process:* Strategic management is a **process** that is considered with the entrepreneurial effort of the organisation, with organisational regeneration and growth, and, above all, with developing and using the strategy which is to direct the organisation's operations (Schendel & Hofer, 1979). Investigating the journey getting there is the task of strategy process research. Strategy

process research attempts to address the question of how strategies are formed, implemented and changed.

- *SME:* Small to medium sized enterprise (SME) represents independent companies with a number of employees less than 250 persons (Annual working unit) and/or its turnover is less than EUR 50 million and/or its annual balance sheet total is less than EUR43 million (www.berr.gov.gov.uk, accessed in 2008).

Appendix IB. Mind Map of Main Stream Strategy Management Literature

Using Andrew Pettigrew's (1992) 'Content-Process-Context' View
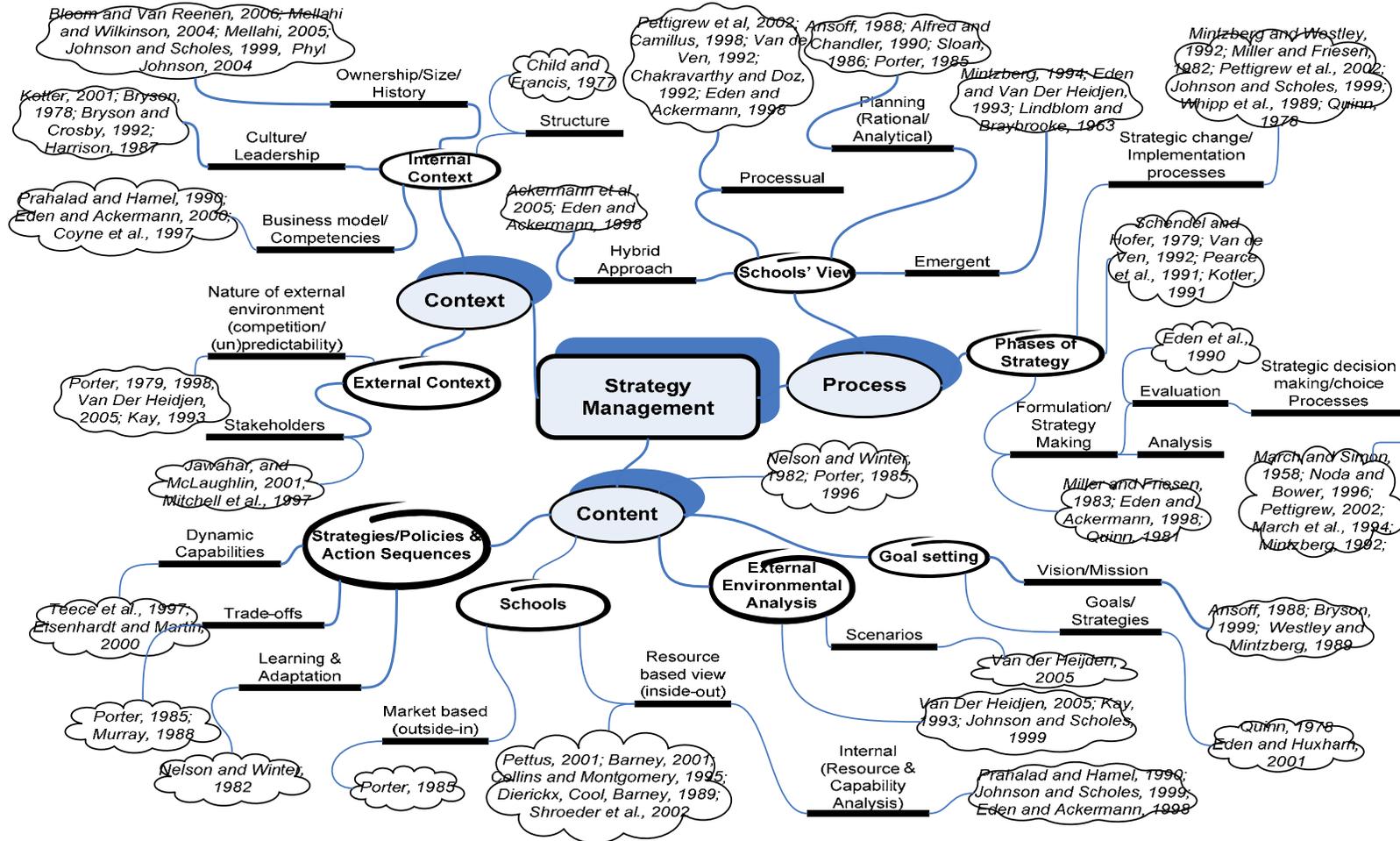
Appendix II

PhD Research Project
University of Strathclyde

Revised Case Study Protocol

Aylin Ates

2007

Section I – AN OVERVIEW OF THE PROJECT

The purpose of the research project is to identify strategic activities and processes that carried out in manufacturing/ production SME companies which are medium sized in the UK. This will be achieved by mapping the strategic activities and processes along with tools used within those processes of a range of medium sized manufacturing/ production companies. The activities will be classified into three phases of strategy process which are formulation, implementation and review & control, and identifying those activities which are carried out in each phase. The conceptual framework   (Figure 1) developed in literature review chapter and the underlying theoretical framework, Systems Theory will guide this investigation.

Analyse external environment
Analyse company core competencies/ capabilities
Evaluate opportunities
Make strategic choice
Define grand strategy and goals
Define short term objectives, targets and action plans

FORMULATE

REVIEW & CONTROL

STRATEGIC THINKING & DOING

IMPLEMENT

Execute strategy
Allocate resources
▪Planning and budgeting
▪Workforce alignment
Institutionalise strategy
▪Communicate
▪Embed strategy
Manage strategic change

Gather feedback from strategic actions
Revise strategy
Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required
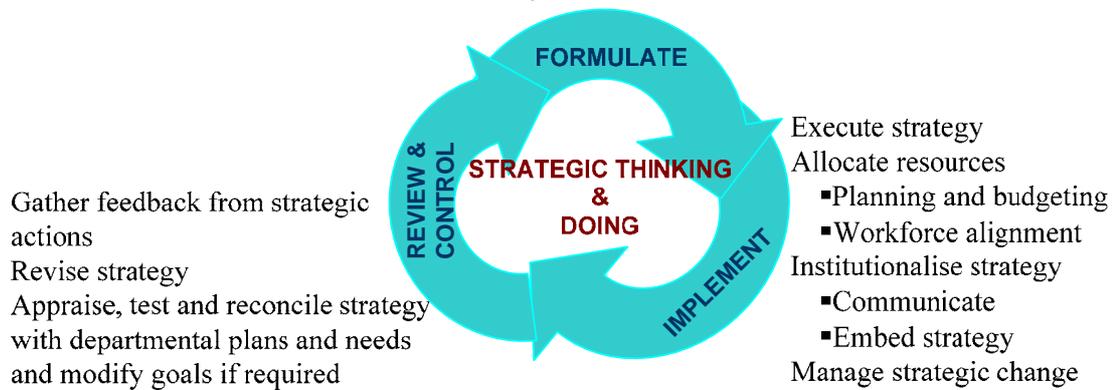
Figure 1 - Strategy process wheel framework

This research is part of a larger research project called 'Manage Processes', funded by EPSRC (Engineering and Physical Sciences Research Council) in the UK as well as being partly sponsored by University of Strathclyde, Engineering Faculty. The researcher is the Project student on the EPSRC Standard Research, GR/T25897/01 account number 11603RA3330.

When looked at definitions of strategy and strategic management, some concepts such as competitive advantage, success, long term goals, external orientation, policy, resources, strengths, weaknesses, opportunities and risks are commonly used within this field. Strategy management is defined by Schendel and Hofer and their definition is guiding this research project because this definition is suitable to explain strategy in SME context.

> *Strategic management is a **process** that is considered with the entrepreneurial effort of the organisation, with organisational regeneration and growth, and, above all, with developing and using the strategy which is to direct the organisation's operations (Schendel & Hofer, 1979).*

The definitions from literature and the conceptual framework provide the rationale for using the case study protocol for Manage Processes project when data collection. Firstly, strategy process literature takes into account the manage processes project topics such as direction setting, strategy, change, environmental scanning and performance. However, this research will focus on strategy topic mainly.

Section II – FIELD PROCEDURES

The data will be collected through a series of interviews with case study companies. Therefore, *unit of data collection* is individual interviews in companies. The data are collected by the research team working in Manage Processes project. The objective of the Case Study Protocol detailed in this document is to provide guidelines to ensure that the data can be collected, presented and analysed in a repeatable and reliable manner by a number of different researchers by minimising interviewer bias as well ensuring that the data is appropriately triangulated.

The data collection and reporting process comprise of four phases as illustrated in Figure 2 below. Each phase is explained in greater detail in the main body of the report.

Phase 1
Set up

Phase 2
Formulate interview strategy

Phase 3
Conduct interviews

Phase 4
Interview analysis

Phase 5
Standard write-up

Phase 6
Case study report

Phase 7
Discuss case study with other researchers and company representative for peer-reviewing

Phase 8
Drawing evidence
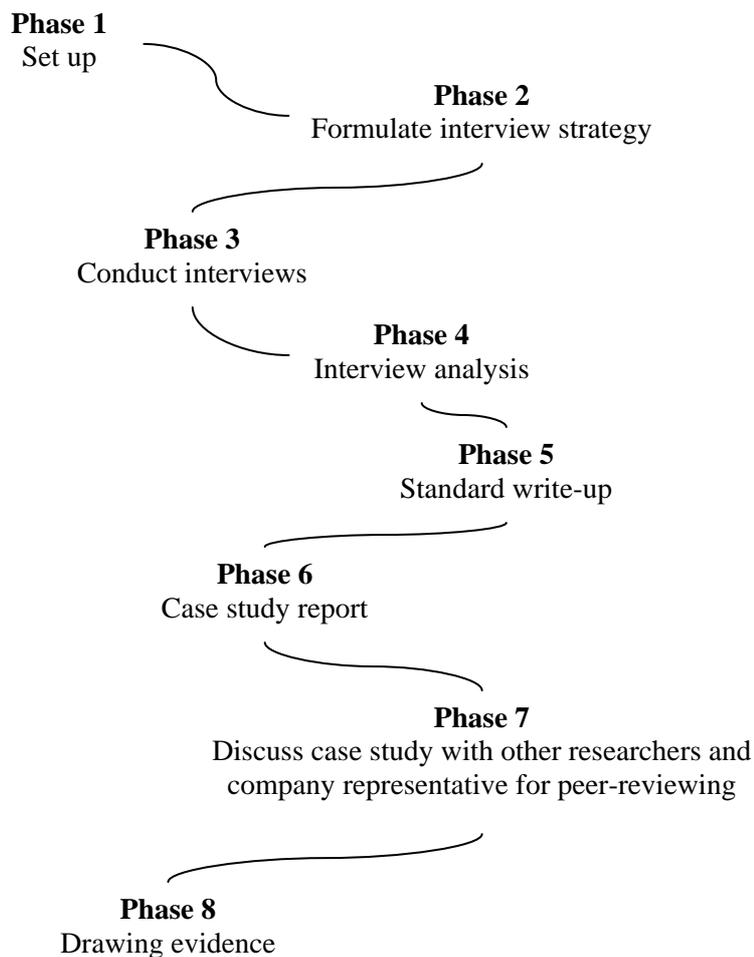
Figure 2 – Phases of data collection and presentation

The Unit of Analysis

It is important for all researchers to understand the *unit of analysis* for this project. This research focuses on the strategic activities and processes used in manufacturing/ production SMEs at business level strategies rather then at corporate level (such as mergers and acquisitions etc.).

To this end, as a guide, the research is interested in:
- Small to medium size enterprises with 100-150 employees (medium-sized)
- Independent (autonomous) SMEs (non-subsidiary; non-operational business units or profit centres of large enterprises).
- Strategic initiatives which have major impact on company operations and performance as unit of analysis such as capacity expansion, re-structuring etc.

Phase 1 – Set Up

Before doing the case study interviews, where possible try to gather as much information as possible about the company or business. This will assist in formulating the interview strategy. You also need to deal with administration and other organisational issues to ensure smooth running of the process.

Desk research

Unless the company is already known to the researcher some general background research will need to be conducted prior to visiting the company in order to establish:
- What is it the company actually does?
- How well or badly the company is doing?
- How they are perceived externally?
- How they compare to their competitors?

The sources of information you can use includes:
- **Fame report** – Summary financial and administrative information available through the library and online databases
- **Industry based market research reports** – There is limited market research available through libraries although it is worth checking with the business school libraries to see what they have. Most companies who produce market research reports charge for them.
- **Brokers reports** – Only available for quoted companies - speak to the business school library as they may have online access.
- **Web site** – A lot of information about the company is usually available here (although it can vary a lot). You can usually find out about the company's products and services, its structure, financial information (for quoted companies), press releases, etc.
- **Press** – This is often a useful source of information if the company gets press coverage and if so is it good or bad. The business school library can again help here.

Meeting with company sponsor

It is likely that you will have a key contact or company sponsor with whom you will agree the conditions of the research. You should approach them with the standard company letter (contained in Appendix IA at the end of this document). In addition to making these arrangements it is also a good idea to meet with them to get some background on the company and the people that you will be interviewing. This can be at the same meeting or done separately. The initial meeting with the sponsor should cover the following points:

- **Administration**
    - Timescales
    - Access to:
        1. People (who and how to contact)
        2. Facilities (where interviews will be carried out)
        3. Documentation (see below but check that at least some access to documents will be ok)
- **Confidentiality** - throughout the research confidentiality will be maintained both with the case study organisation and the individuals participating in the interview. It is therefore important that the sponsor and all others are ensured of this fact at the outset. A key point to emphasise is that *"data gathered from any individual person or the company will not be used in any way in any research report or publication that may incriminate or identify them as an organisation or an individual".* If required, formal confidentiality agreements are available that can be amended and signed by the research team and the company or the individual concerned – please see Appendix B at the end of this document.

- **Overview of organisation** – the objective here is to try to get a feel for the company around the following areas:
    - Brief history of the business - i.e. when did it start, change of ownerships, significant changes etc.
    - Size and ownership – number of people, turnover, is it part of a group (if it is - Is it a cost centre or a profit centre? How does the group measure its performance?)
    - Products and services offered (past, present and future)
    - Markets – including: Customers, Competitors and Suppliers
    - Current state of business as well as a brief history of business performance
    - Future direction and plans
    - Organisational structure and management team
    - Processes they consider important
    - Culture

Documentation

The amount of documentation that will be available to you will vary from company to company. Try to get access to as much documentation as possible – this will help when asking questions in the key areas. Typically the documentation you will require

will include:

- Management information (eg. KPIs, board/management papers, financial and other performance information etc)
- Organisational structures
- Company communication - internal (Newsletter, Intranet, etc.) and external
- Any documentation that may relate to the Manage-Processes, such as: vision, mission, performance reports, management reports, strategy documents, management and company wide briefings, and so on.

Where an organisation does not allow data to be taken away, you should ask to see supporting data where possible. This should then be followed up with a brief description in your report.

Should documentation be obtained, it should be filed in a secure manner to ensure company confidentiality is maintained.

Site visit

Seeing around the site(s) gives you the opportunity to see for yourself what the company does. It can be a good idea if the person showing you around isn't one of the management team as they can often give you a different perspective. The site visits, as well as giving you a greater understanding of the company's operations will allow you to make some observations on the following points:

- How organised and smoothly do things seem to run
- What is the atmosphere like – especially if you get the chance to speak to people as you go around
- State of things (i.e. in a factory how new, clean, facilities available to staff etc)

Arranging Interviews

It is important to interview a balanced mix of people to ensure that all important areas are covered. Although the following list provides guidelines on who to interview, it must be recognised that the size of the organisation will have an impact on how may people that needs to be interviewed.

- CEO/Managing Director/General Manager and his/her management team
- A selection of direct reports to the management team
- Union representative if relevant and possible
- Workforce - There may be limited time and opportunity to individually interview a sample of the workforce. To make efficient use of time this difficulty may be overcome by arranging an informal group interview. Alternatively chatting to a few individuals as you walk around may give some observational information supporting or otherwise what management are saying.

In arranging the interviews try to keep the following points in mind:

- 3 to 4 interviews per day is a good guide if they are one hour long – you will be able to assess what you think is best for you after you have tried it out.

- Try to allocate about 1½ hours per interview to allow some time just to chat. If you feel that you need more time, arrange to see the interviewee again for a follow up interview.
- If possible leave a gap between interviews to allow time to compose thoughts and prepare for the next interview.
- Contact interviewees before you are due to interview them either to arrange interview times or if this has been done for you to check they are expecting you. Let them know who you are and what you are doing however don't go into too much detail or ask them to prepare anything

Phase 2 - Formulate Interview Strategy

It is a good idea to think about how you are going to approach each interview and assess if you are going to follow the same approach for all or if you are going to tailor what you ask depending upon the person's role or function.

In our experience trying to cover all the areas of the manage-processes is quite difficult in an hour and you may take the view that some people may have more to contribute than others in some areas. Consider whether to discuss this with the sponsor to get direction as to who might be best to talk to in which areas but also bear in mind not to be too influenced or directed by them.

However, in order to ensure reliability of data, it is important that you cover each of the areas with at least two interviewees and *where possible corroborate interview findings with supporting documentation or from your observations.*

Where there is a conflict in opinion between interviewees and/or observations and documentation – this should be explicitly reported under the relevant manage process.

The objectives of the interviews are to have generic conversations with the interviewees (without influencing and directing their answers) to try and understand the management practices of the company under following five headings:

- Set Direction
- Monitor External Environment
- Manage Strategy
- Manage Performance
- Manage Change

It is also important to explicitly request the interviewee's opinion and reasoning on the company's performance as a qualitative measurement of the company's performance.

In capturing the management practices of the companies it is important to consider all parts of the following structure:

Table 1 – Structure of a practice

Task	What is done
Time	How often is it carried out?
Resources	What resources the company uses/deploys to do what it does
People	Who actually does the task and if applicable, who is it done to
Outcome	Why is the task being done – what are they trying to achieve?

For example:
The company checks staff performance (task). It is carried out by managers (who does it) to all shop-floor staff (who it is done to) every 6 months (time) in order to improve operational performance and encourage communication (outcome).

As can be noted, the practice does not contain a 'resource' element since this is not always relevant. The same can be said for "who is it done to".

In order to fulfil the broader objectives of the research it is pertinent that the case studies also capture additional data under the following three headings:
- Interviewee job/role orientation
- Strategic history of the company
- Company performance

The following two pages provide guidelines as to the sorts of conversations that might need to be held under each heading with the exception of Company Performance which is covered later in this document.

******* *WARNING*******
*Please note that the table below does **NOT** constitute an exhaustive list of questions that should be asked to each interviewee. As the researcher/interviewer you must facilitate the interview as a natural conversation so that the answers to these questions emerge naturally. A mechanistic question and answer session based on these questions may influence the answers provided by the interviewee thus affecting the validity of the data provided.*
******* *WARNING*******

Section III – CASE STUDY QUESTIONS

The researcher will articulate the following Level 1 and Level 2 questions for data collection purposes. The questions asked in the field are not synonymous with the research questions of this research inquiry. The main reason is that the researchers are not aiming to influence the interviewees by putting words into their mouths but rather are aiming to let data emerge naturally from very loosely structured conversations during the interviews.

Orientation
Level 1: Questions asked to interviewees as guidance to the conversations. The researchers are not asking the questions in sequence but rather are stimulating a conversation.

Introduction to project by researchers:
- Briefly explain project
- Explain the process
- Ask permission to record the interview
- Tell them who we are

Interviewee Orientation:
- What do you do for the organisation?
- Who do you report to and who reports to you?
- Frequency of meetings, nature of relationship, boss's style?
- What is the scope of your responsibilities?
- Could you describe your own leadership style?

Organisational Orientation:
- What do you think the business does well?
- What does success for the business look like?
- What do you think are the biggest challenges to the business over the next few years?

Set Direction
- Are you involved in setting the direction of the company?
- Can you describe what you do?
- Who else do you work with? What do they do? What information is used?
- Regarding the output how is it used/communicated?
- Is it realistic/achievable?
- Do you think the process works?
- How often is it revised?

Manage Strategy
- How do you manage your area of the business on-going?
- How does it tie into the overall business objectives?
- Who do you involve/interact with?
- Is your approach specific/flexible?
- What measures tell you if it's working?
- What time frame does it consider/how often is it revised?
- What information is used?

Monitor the External Environment
- What information do you get about your customers/suppliers/competitors?
- Do you seek it or is it provided to you? If so, from whom?

- Are there any other external influences on the internal workings of the company?
- How do you use the information?

Manage Change
- What significant changes have there been in the company in the past 10 (or so) years?
- How do you identify areas where change is appropriate or required?
- How do you make change happen?
- How did you motivate people to change?
- How do you communicate change?
- In general how is change perceived?
- Is change sustainable? How do make it happen?/ Why do you think it didn't?

Manage Performance
- What sort of performance information is used? (Link with success)
- How do you identify the performance measures?
- How often do you review performance measures for accuracy/appropriateness to current needs?
- How do you use it to help you to do your job?
- Where does the data come from?
- Who is the information communicated to and how?
- How do you improve performance of individuals? Staff appraisal etc?

Closing
- What would you change (with regards to the business and how it is managed) if you could?
- Is there anything else about the management of the business you'd like to talk about?

Additional Questions Asked:

- Which management tools are used? (This question was asked to expand on how the activities were carried out in the firms in above areas.)

Level 2: Questions asked of the individual case to be answered by the researcher during a single case

Research Questions

- How do different elements (i.e. phases, activities, practices) within the strategy process interact in manufacturing SMEs?

- How do manufacturing SMEs execute different phases of the strategy process? What and how strategic tools are being employed in manufacturing SMEs?

- How strategic initiatives and implementation plans link?

- What emphasis do manufacturing SMEs put on formulating, implementing and reviewing phases of the strategy process?

Phase 3 - Conducting Interviews

The interviews should be carried out as planned and detailed in the previous section. The researcher(s):

- Should ensure that: all interviews are recorded using electronic recording equipment – e.g. MP3 player, iPod, etc.

- Could chose to take notes in their own preferred format, for example structured English, cognitive mapping, mind-mapping or any other method preferred by the researcher(s)

- Should maintain a research diary to facilitate the recording of all relevant observations

The researchers will be required to submit the electronic recording files, their notes and research diaries to the research team in order to ensure reliability and repeatability.

Pilot Case

A final preparation for data collection is the conduct of a pilot case study to try out whether the protocol is working or not. For the larger project, a pilot case was conducted in a company based in Scotland where the research team has close relations with. It was proven that the protocol is useful and was modified and updated. This particular research has not piloted any case study because the data collection phase is the same with the larger project. The revised protocol only differs regarding data presentation and data analysis. Therefore, it has been taken that the same protocol is useful and valid for the purposes of this research too. The qualified case studies used in this research were selected from the larger project case study pool.

Section IV – A GUIDE FOR THE CASE STUDY REPORT

Phase 4 – Analysing Data

Depending upon the interviewer and their preferred mode of operation the data collected from the interviews will be analysed and the strategic activities and processes used by the company will be captured. This will be achieved by re-listening to the interview recordings and analysing company documents and researcher's notes and observations (where possible). The evidence from each case

study will be documented in a detailed case study report.

Case Study Report

Once the interview recordings are re-listened where possible, each case will be documented in detail in a Case Study Report that is structured as follows:

- *Introduction* – Here, provide a brief history of the case study, covering who was interviewed and the approximate start and finish times of the case study.

- *Business Context* – a brief introduction to the case study company which is being studied. This section should include:
    - An overview of the sector the company operates in
    - Ownership (i.e. parent company etc)
    - Main products, markets
    - Brief history of the company
    - The organisation structure (including the external reporting lines if appropriate)

- *Business Focus and Strategic Initiatives* – Business challenges and recent focuses as major strategic decisions and initiatives which the interviewees mention during interviews.

Strategy Process – the broad phases of strategy process will be included in the report. These headings are relating research questions and conceptual model to the data. However, the activities are presented as they happen in companies with no particular order which is inline with the conceptual model (Figure 1).

- *Formulation* – Here, under this heading, explain what the company does and how things are done and what resources and strategy tools are used (if applicable), and what the intended and/ or emergent outcome was.

- *Implementation* – as Formulation

- *Review and Control* – as Formulation

- *Other* – Detail here any strategic activities that you and/or the company felt were pertinent to the strategy of the company but did not comfortably fit under one of the above headings.

- *Researcher/Interviewer Concluding Remarks* – here a short conclusion should be included by the researcher which tries to relate the company's strategic initiatives to strategic activities and processes used within the company.

An example of such a report template is provided with this document (Appendix IIA).

*****IMPORTANT*****

Ensure that you make any conflicts you identify explicit in case study report. Do not try to resolve the conflict and come to a conclusion in the main report. If as an interviewer you have a particular opinion on the accuracy of what you have seen or heard the you can express this opinion in the section titled Researcher/Interviewer Conclusions.

*****IMPORTANT*****

Section V – EVALUATION

Presentation and Discussion with the Research Team

The researcher will then present her findings to other researchers and academics that are involved in face-to-face interviews or have in-depth knowledge about the company for discussion of the findings. In particular, any debate about the classification of sector, strategic activity or strategy process should be settled by panel decision. This peer-review process will ensure the research quality and reliability of data collected and presented in a consistent manner.

Summary of Deliverables

The following will be submitted to the research team on conclusion of each case study:

- Interview Recordings
- Interview Notes
- Company documents
- Archival company documents
- Research Diary
- Case Study Report

The above documentation should be included in the M103 file library for reference should any member of the research team wish to access it at a future date.

Appendix IA – Manage Processes Introductory Letter

Dear [Individual's name],

Re: Manage Processes Research

Further to our previous conversation today I am writing to invite you to participate in the Flag Ship research project we are undertaking for the UK Research Council. The project aims to identify the management practices that distinguish successful companies from others. I have provided a short summary of the research project and its objectives at the end of this message.

In order to conduct the research we need to examine the management practices of a variety of companies. In total we would expect to interview about 5 individuals from the [organisation's name] management team. We expect each interview to last between 1 and 1.5 hours. In addition, we would ideally like to speak to a sample of the four to six members of the workforce in a group interview format lasting no more than an hour. All company information and individual interviews will be treated in strict confidence and nothing will be published specific to your company or any individual interview.

In return we will be able to provide you with a short report comparing your management practices against what is published in the literature as "best practices", which in itself may be a useful input for your business.

I hope you are able to participate in this project. I look forward to hearing your response.

Best Regards,

Prof. Umit Bititci
Principle Investigator (Manage Processes Project)
Design, Manufacture and Engineering Management
University of Strathclyde

Manage Processes Project Overview

This is a Flagship Research programme which is funded by the UK's research council. The academic team which is managing the programme includes UK's top academics from the following areas: Enterprise management; Industrial Psychology; Strategic Management; HRM; Management Science.

In short the project is about:

- Looking at a business as a series of business processes and grouping these processes into:
  - o Operate Processes ... these are customer facing processes that create value and competitive advantage here and now. These processes are well established in the literature and include: Generate Demand, Develop Product, Fulfil Order and Support Product
  - o Support Processes... these are processes that exist solely to support the operate processes and the manage processes
  - o Manage Processes... these are processes that looks in to the future and makes strategic, tactical and operational decision on what the business should to do maintain its competitive advantage in the future
- The point of departure for the research is that "It is the capability of these Manage Processes that create sustainable competitive advantage" therefore we need to understand the practices of successful and unsuccessful companies and develop maturity models for these processes.
- Our research so far has identified five Manage Processes... these are:
  - o Set Direction
  - o Monitor External Environment
  - o Manage Strategy
  - o Manage Performance
  - o Manage Change
- We suspect that there may be other Manage Processes and we expect that these will emerge from our research
- The ultimate objective of the research is to develop a maturity model for each one of these processes
- We are pursuing this objective in two ways:
  - o Through an in depth study and analysis of the literature... the attached Maturity Model for the Manage Performance process is our first attempt at this.
  - o Through analysis of companies practices... I.e. we interview and study management practices of companies and classify these practices under the five headings (corresponding to the above five Manage Processes) plus a sixth heading "Other".... We will then classify the companies in to one of three categories... Success, Survivor and Failure... and analyse the emerging patterns to surface the practices or the group of practices that are unique to each group.

Appendix IB

CONFIDENTIALITY AGREEMENT

This Agreement made on the…………………… day of …………………………………200 relates to all communications (whether written, oral or otherwise) between the parties named below on or after………………………………. (notwithstanding the date of signature of this Agreement) and applies [for a period of three years from that date] to any Information relating to the Subject Matter as hereinafter defined.

Information shall mean any supply, communication or exchange of information of any kind including without limitation, know-how, drawings, data, software, and other technical matter.

Proper Use shall mean discussions between the Parties to further the research and development project in the area of the Manage Processes.

Subject Matter shall mean all information relating to the expertise and know-how of the Manage Processes Research team at the University of Strathclyde, and of other University staff involved in the analysis of information regarding the Manage Processes Research Project.

Now it is hereby agreed as follows:-

1. All Information which it receives from the other (whether directly or indirectly) will be regarded as, and kept confidential and no part of it will be divulged by the recipient to any third party at any time and in any form whatsoever without the prior consent, in writing, to be obtained specifically on each occasion of the other party except as outlined in paragraph 4.

2. Information received by one party from the other will be used only by the recipient for the Proper Use and the recipient undertakes to take no action to otherwise use or exploit Information without specific prior written agreement of the owning party.

3. For the avoidance of doubt, ownership of Information shall remain the property of the party providing the same. No licence is granted hereunder to the recipient and no licence shall be deemed to have arisen.

4. Information may be revealed to employees of the recipient but only to the extent that this is necessary for the Proper Use or to further communications between the parties or to carry out such work as it is agreed in writing between the parties that one party will undertake for the other. The recipient will bind such employees to keep such Information confidential both during and after their current employment and will take appropriate steps to enforce the obligations of such employees in relation thereto. With the consent of the party obtained in writing, whose consent shall not be unreasonably withheld, the recipient may disclose Information to the extent required by statute.

5. This Agreement shall not apply to any Information which:-

    (1) at the date of this Agreement is in the public domain or subsequently comes into the public domain through no fault of the recipient and not in breach of this Agreement;

    (2) was already known to the recipient on the date of disclosure, provided that such prior knowledge can be substantiated and proved by documentation;

(3)   properly and lawfully becomes available to the recipient from sources independent of the owning party;

(4)   either party is required to disclose pursuant to a judicial or other lawful government order, but only to the extent of such order.

6.   This Agreement shall in all respects be construed and interpreted in accordance with, and governed by, the Law of Scotland, and the parties prorogate the jurisdiction of the Scottish Courts.

Signed ....   Signed ....

Name   ....   Name   ....

Position ....   Position ....

Date   ....   Date   ....

On behalf of: On behalf of:

University of Strathclyde   [………………………………………
16 Richmond Street
………………………………………….
Glasgow G1 1XQ
………………………………………….
                                                    ……………………………………]

Witness ....   Witness ....

Name (print)   ....   Name (print)   ....

Home Address   ....   Home Address   ....

                    ....

Appendix IIA

CASE STUDY REPORT TEMPLATE

[COMPANY NAME]

Aylin Ates
University of Strathclyde

[Month, Year]

1.0   Introduction

The following report is a summary of information gathered from a set of face-to-face interviews conducted by [researchers] from the University of Strathclyde on [Date]. [Interviewee number] members of the organisation were interviewed;

- [Job Title 1, Interviewee name, Interview duration]
- [Job Title 2, Interviewee name, Interview duration]
- [Etc]

The report is divided into three key areas of interest to this research; strategy formulation, strategy implementation and strategy review and control processes and activities underlying strategic initiatives in the company. The report begins with background information to establish the context of the subsequent data according to the interviewees and desk research. The report concludes with researcher's conclusions on strategy processes in the related company.

2.0   Business Context

The following three sections will now explore the strategic activities and processes behind strategic initiatives of [Company Name] according to the three strategy process phases of interest.

3.0   Business Focus and Strategic Initiatives

4.0   Strategy Formulation

5.0   Strategy Implementation

6.0   Strategy Review & Control

7.0   Concluding Remarks

Many thanks to those who agreed to participate in this research project. Upon ratification of the underlying models from all the source data, the interviews conducted at [Company Name] will be compared to the results suggested by existing literature and the output will be shared with the organisation.

Finally, should the reader wish to offer corrections or dispute any element of this report, please contact the researcher directly.

Aylin Ates   aylin.ates@strath.ac.uk

Appendix IIB

CASE STUDY REPORT

BLAIRS OF SCOTLAND, Greenock

Aylin Ates
University of Strathclyde

March 2006

1.0   Introduction

The following report is a summary of information gathered from a set of face-to-face interviews conducted by Aylin Ates and Trevor Turner from the University of Strathclyde on 21st March 2006.   Three members of the organisation were interviewed:

- Managing Director, Owen Quinn (1½ hours) 9.00 am
- Director of Engineering and R&D, Allan French (I hour 15 minutes) 11.00am
- Finance/IT/HR Director, John Torley (1hour 15 minutes) 1.00 pm

The report is divided into three key areas of interest to this research; strategy formulation, strategy implementation and strategy review and control processes and activities underlying strategic initiatives in the company. The report begins with background information to establish the context of the subsequent data according to the interviewees and desk research. The report concludes with researcher's conclusions on strategy processes in the related company.

2.0   Business Context

Blairs is one of UK's leading designers and manufacturers of timber frame windows and doors in construction sector. It is based in Greenock, Scotland since 1908. CR Smith was the previous owner of Blairs. Blairs has 35% market share dominantly in Scotland and 1% in England. They have saturated the Scottish market and they see themselves in English market as niche/gap player. However, their objective is penetrating the English market and to increase its market share. Blairs is seeking to penetrate the English market for the Tilt and Turn (European) window in the local authority and housing association sector in London and the South currently.

The company experienced a big turn around when the current MD, Owen Quinn, came along. The MD worked previously in automobile industry before coming to Blairs and he describes the building sector as being crazy and operating quite differently. Out of the tenders presented, there is a 1 in 4 success rate. This means that 75% of the work done goes in the bin. A billion dollar building may have 10 people invited to quote and it is 90% inefficient and then the second level again is 90% inefficient. Blairs is trying to cope with this challenge by developing partnerships with customers. This is not easy because there is no investment in the supply side in the sector. Two board members are in the Chamber of Commerce trying to change legislation driving the inefficiency in the industry.

Brief company history

With the previous owners there was no strategy, a new ERP system was causing chaos and the external auditors had abandoned the audit. Records were so poor that it took a month to produce management accounts. Finished goods had nil value. There were large overdue loans, a large overdraft and there was an urgent need to put things in control before reinvestment, capital development and self-generation of the business. A £600K extension to the overdraft was obtained and the company was technically insolvent. The bank supported the business for three years before becoming solvent again. They appointed a chairman and CR Smith put Owen into the business. As a result, the main action taken initially was to manage cash flow to turn business around.

In 1997 the company was losing £1million a year and had no vision and the company was in a difficult situation and the current finance director was the 4th

financial controller in last 2 years. The company did not focus on customers and did not know what was wanted in the market. The company decisions were based on anecdote the complete system was not working and so an analytical approach was introduced. Since the MD came to Blairs 9 years ago in 1997, radical changes took place in the company.

Initially shareholding was CR Smith 50% and a venture capitalist 50%. In 2 to 3 years a debt to equity transfer took place and share holding is now the MD 40%, Ken 20% and George 40%. The bank was involved in the restructuring and funding capital investment when the Blair's vision 1999/ 2000 was produced.

Organisation structure
Board of Directors – 03/10/2005

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                         ┌──────────────┐
                         │      MD      │
                         └──────┬───────┘
          ┌─────────────────────┼─────────────────────┐
  ┌───────────────┐    ┌──────────────┐      ┌───────────────┐
  │  Director of  │    │   Company    │      │  Director of  │
  │ Engineering and│   │  Secretary   │      │  Commercial   │
  │      R&D      │    │              │      │   Services    │
  └───────────────┘    └──────────────┘      └───────────────┘
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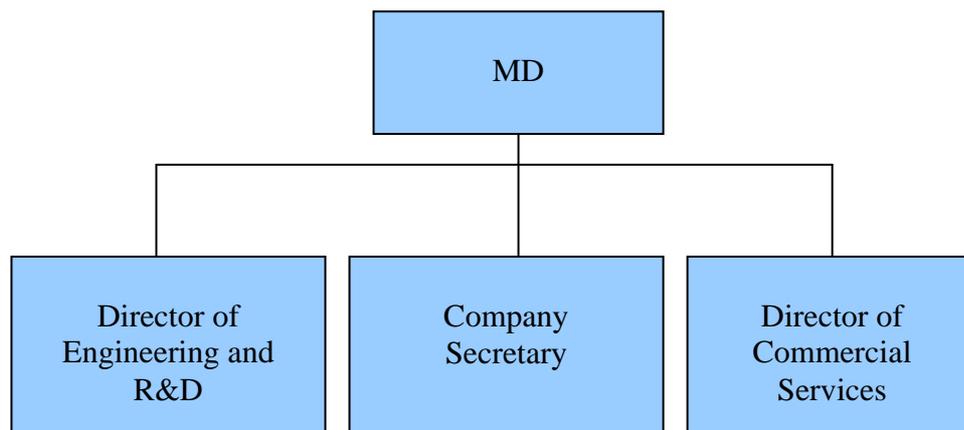
Senior Management Team – 03/10/2005

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                              ┌────────────────────┐
                              │ Managing Director  │
                              └─────────┬──────────┘
   ┌──────────┬────────────┬────────────┬────────────┬────────────┐
┌────────┐ ┌──────────┐ ┌──────────┐ ┌───────────┐ ┌──────────┐ ┌──────────┐
│Company │ │Director of│ │Director of│ │ Business  │ │Production│ │Marketing │
│Secretary│ │Engineering│ │Commercial│ │Development│ │Director  │ │Director  │
│        │ │ and R&D  │ │ Services │ │ Director  │ │          │ │          │
└───┬────┘ └──────────┘ └────┬─────┘ └───────────┘ └──────────┘ └──────────┘
┌────────┐              ┌──────────┐ ┌──────────┐
│Financial│             │Logistics │ │Technical │
│Controller│            │Director  │ │Director  │
└────────┘              └──────────┘ └──────────┘
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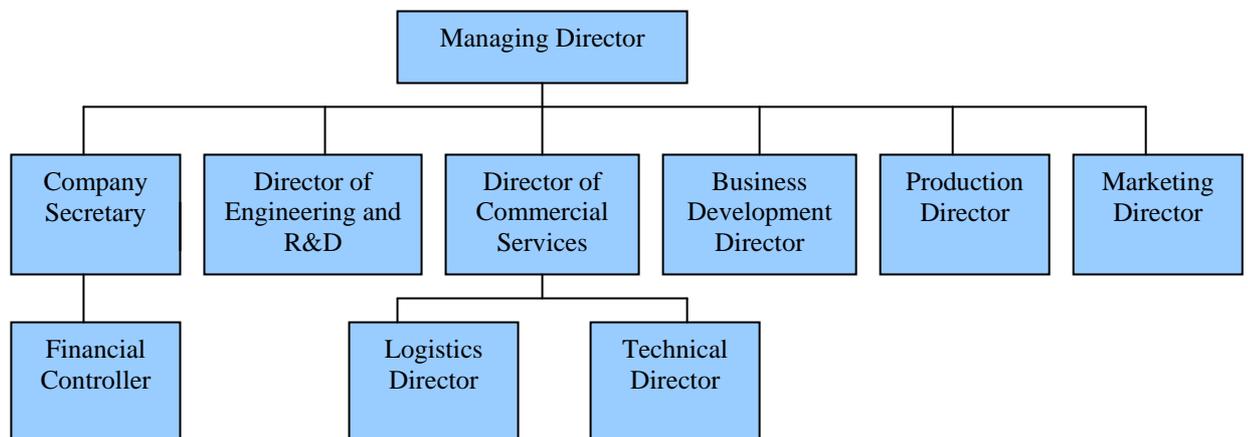
Blairs management team comprises 9 people, who are responsible for running the company. Even though initially the company took a more autocratic management style in order to implement necessary big scale changes, now there is a democratic management style among managers in the company. The marketing director is newly appointed. Blairs of Scotland has 150 permanent full-time employees.

The following three sections will now explore the strategic activities and processes behind strategic initiatives of Blairs of Scotland according to the three strategy process phases of interest.

3.0 Business Focus and Strategic Initiatives

Before 1997, there was no clear vision in the company and the company philosophy was to *fix it when it is broken*. In 1997, the new MD Owen Quinn took his position and a series of changes happened in the company. As a result, when the business was losing £1 million a year, in one year the break even was achieved and the business started to improve its market share and turnover. The main business focus and strategic initiatives mentioned during the interviews are:

- Business 'turn around'
- Focussing on market penetration strategy in South East England and London area.
- Reducing inefficiencies in tendering process
- Introduction of new product lines
- Selling a wider range of products in relatively high volumes in make to order environment (bespoke products business model)
- Remove waste in system and making production processes more efficient
- Employing outstanding people and offering a world class rewards and benefits package
- Installation of a range of new equipment to keep up with demand and to increase manufacturing capacity

The following sections will expand on the strategic thinking and activities that Blairs of Scotland carried out in order to achieve the above strategic initiatives.

4.0 Strategy Formulation

After managing finances and extending overdraft from the banks so as to manage cash flow, the management team worked on removing all waste in the system, for instance, sometimes it took three attempts to get orders for windows and doors right. Following a series of strategic and major changes, they went from a £1million loss per year to breakeven in only one year and to £6 million turnover in a short period of time. At that stage the strategy was to get *sales and marketing* according to the finance director. In order to achieve those major changes, the new MD, Owen Quinn, was appointed.

The next thing was developing a vision and mission for the business. Before 1997, the company did not have any vision or mission to direct the business. Since 1997 when the current MD joined the company, at a macro level the business plans developed based on the vision and values that are etched on glass in the foyer. The starting aims for Blairs were:

- To develop a highly profitable debt-free business
- To be an indispensable partner to their customers and suppliers
- To recruit and develop an outstanding generation of employees (60% of employees have degrees now)

- To establish a world class rewards and benefits package
- To be one of the UK's best companies

Then, the MD focussed on people buying in the new vision and values. If the employees were blockers to the new vision, they were removed. Owen Quinn describes his job as being a coach who is preparing the next group of managers to take the business on for another 100 years. The MD describes his job as being a company doctor who is analysing organisations to better them. When he was on board, firstly he walked about the factory and spoke to everyone and asked the staff what he/she did in offices as well as on the shop floor. This was happening sometimes informal, sometimes formal. The MD found out that everyone described themselves by the tasks they did. They described their functions without articulating where their role was in the business and how their position and contribution was connected to the company objectives as a system.

He asked senior people to do a project for him. Consequently, they categorised the staff into *warriors, terrorists, and passivist* and kept the warriors and some of the passivists but removed the terrorists who were not contributing to the business goals and also were not willing to change either. Like-minded people were needed to run the business and the culture was previously all wrong. It was necessary to create structure and discipline. Sixty people left the company including production and commercial directors. Forty people were temporary staff. From the 8-10 people in management team originally, only three of them remained. He reduced staff number from 239 to 150 in six weeks. 78 of these are still with him and the company still employs about 150 people.

The next thing was analysing the environment to understand the market needs and Blairs' position within the market. Previously, the company did not focus on customers and did not know what was wanted in the market. The MD got his son who was doing his MSc degree in Marketing Department at the University of Strathclyde to do a *Market Research Project* for the company. The MD wanted to find out how the company was perceived and what the market was buying and where. Also, a large market research company based in London, called MRUK, is used to do the market analysis (see document dated October 2005 'Blairs Survey'). This survey looked into the size of housing market, specification setting and contracts, lifespan of windows and doors, budgets, decision making and partnerships, types of materials used, competitors, knowledge and purchasing information from manufacturers, key qualities required from a manufacturer and so on.

MRUK Survey provided Blairs with the necessary market information. The MD stated that he was not using any strategy or management tools to interpret the data but some other managers (e.g. the business development director) were employing tools. For instance, they plot the industry cycle because the business is weather dependant. They have monthly statistics of sales of every product going back nine years. This data is displayed and used at monthly board meetings.

From the Market Research they found out that the business model of the company was wrong and they changed it. This led to the introduction of two new product lines. The marketing strategy was changed to sell a wider range of products and to focus more on the English market. Especially, they wanted to achieve market

penetration strategy in South East England. A new business model was created to do the following strategy:

...Design, manufacture and sale of a wide range of bespoke timber windows and doors with extensive option availability and in relatively high volumes...

The 'relatively high volumes' part of the model was important to achieve in a *make to order* environment. This model changed the focus of the company from a bargain basement, price driven model into direct competition with foreign competitors who had entered the market.

Environmental analysis is an ongoing process for the company. The firm regularly purchases key note reports, MBD, private surveys from people who publish data for the window and door industry quarterly. They also collect prima facia data e.g. quotations from other companies to their customers, specifications etc. They talk to the suppliers, customers and stakeholders. For instance, the Finance Director works on maintaining ongoing good relationships with shareholders and the bank. As a management tools in decision making, the Finance Director uses the *Capabilities Maturity Model* very useful. (See model provided). This tool helps him to understand their capabilities and making decisions.

The MD deems that *knowledge of market place* is very important. Once you have the knowledge then they can interpret data and work it out where the market is. This enables them to determine where they should go. Their engineers go to all the exhibitions and trade shows throughout Europe to gather new product and process information. Interpretation of all the data gathered helps them to purchase different product types effectively. This helps them decide where to invest. For example, they thought they had an idea what housing associations wanted but the data analysis from the market research indicated otherwise. These reports are used to shape the business – *the corporate plan does not sit in the bottom drawer-* the reports are produced to run the business professionally not to impress senior managers. Scanning and analysing the environment resulted in a number of strategic understandings of the business and decisions for the company:

Firstly, they are now moving into the English market after looking at industry statistics of trends and extensive market research in England. They develop their own economic indicators at the moment but will make it more *formal* next year. They see the need for a formal process of developing economic indicators.

Secondly, the firm understood its customers better at the end of MRUK 2005 market research. They understood that their customers are Maintenance Managers and Development Managers rather that architects and contractors only. Also, they realized that they not only sell windows and doors but also sell a *project* to the customer. This was a very important knowledge for them to understand and shape their new business model.

Blairs has good people who know the market, the legislation, the technology and unique demands from customers. For instance, the director of engineering goes to all the shows and exhibitions, and the leadership team reads the sector magazines. They decide what sort of product is needed in the market and how they are going to go about providing it. They link to external agencies and the universities to get help in better decision making (e.g. Trevor Turner, Stewart Bell) so slowly the ideas and

decisions form. As many as 20 people may have an input into their decision making and strategy evaluation process.

As a result, '*From thought to finish*' has been Blairs's philosophy since 1997. Thus, the new business model is decomposed into the following objectives:

- Develop an outstanding generation of employees
- Invest to the community
  - The investment strategy does not stop at people only; the company is in the middle of £2 million regeneration of their factory, which will enable them to safeguard the jobs of over 150 people in Scotland.
  - The company employs the majority of its workforce from Greenock area. They see themselves as part and parcel of the local community. In spite of the fact that we are in an age of global outsourcing and geographic disparity, the firm believes its strengths coming from the community roots.
- High volume production
  - Monthly Sales order intake charts, Production output values per month along with forward forecasts; pricing trends are used as data and tools.
- Health and safety
  - Monthly accidents reports are used as data.
- Committed to the environment
  - Environmental waste maps along with Reduce, Recycle, and Dispose, Reuse strategies for each item. (e.g. item category: timber, strategy: reduce, tool: housekeeping, description: tidy factory, time, impact and action matrixes are used)

A stop mistakes and control the business approach with the MD taking a *hands-on leadership role* was followed with setting targets for weekly production of doors and windows.

5.0   Strategy Implementation

Before 1997, CR Smith which is the previous owner of Blairs had not been investing in people and processes. Blairs was sweating the assets with engrained problems e.g. equipment broken and not fixed, quality problems not resolved and robots introduced in spray plant but were taken out. The Company could not pay bills to repair them when they broke down so essentially a *cost leadership strategy* was applied. The MD put in place bespoke products business model when he came on board.

The first steps in strategy implementation process involved investing in people. The management team found out that there were 40 different pay rates in the company. Therefore, the labour issues were sorted out first. Large pay rises for most people were made but for some people pay was 'red circled' until other groups came in line with them. Finance systems have been introduced with written procedures and jobs were better defined.

The MD invited the shop floor staff to discuss people issues. Benchmarking exercise carried out on pay, conditions, image, compared to local companies in electronics, drinks, and call centres sectors employing people in the Greenock area. It is found out that Blairs is in the lowest quartile in all aspects. This led to inclusion of statement in *strategy* 'to establish a world class rewards and benefits package' this

would allow them to attract and retain best people. A significant step in cultural change in the company was achieved that way. Having decided what they wanted to do strategically, they then started to recruit people who could deliver the plan. The management team coached the organisation to deliver the shared values continuously.

Union negotiations led to develop a *conversion process* to top up skills and qualifications of staff. Transparent grading system introduced with visibility of how everyone could move up the scales. Cross training of people has taken place. For instance, a course on *Systematic Inventive Thinking* was organised for the engineers who works in order processing and other staff. A 'pay back' approach is used with a formal process to control innovative ideas.

The other aspects of the strategy were to develop the best products and become an outstanding company. This strategy was the focus for the company after the people aspects were sorted out. The vision was to become a company that is capable of regenerating itself. Then, the company started to invest in operational processes and new machines. The engineering director's first role was to look at manufacturing operations to increase the existing capacity. All of this was done before paying attention to the machines.

Blairs has embarked upon a major investment plan, in three stages, through to Easter 2005, which will result in the doubling of the company's installed manufacturing capacity to 60,000 windows and doors, per annum. The first stage of the programme was unveiled in January 2003 when local MSP Duncan McNeil, Chief Government Whip to the Scottish Parliament, visited Blairs of Scotland, to "cut the ribbon" and start production on two new high tech production machines.

The MD had a clear idea what to do and commissioned a market survey as explained in strategy formulation section. Market research had identified two specific factors that would differentiate Blairs products in the market: security windows and improved tilt and turn products. Thus, they redeployed people into engineering design to develop products, prototyping, testing pilot production and manufacturing. New products, introduced in November 2004, now adding further £2million to annual sales and they have leapfrogged other bigger companies.

Initially, there was no money for investment in new machines and so the approach was 'how can we get capacity up on existing machines' (i.e. improve effectiveness) they used *six box approach* developed by John Harvey Jones at this phase. The basic idea was to get rhythm into the factory. This led to the **Blairs Operation Model 2000** being developed.

Some aspects of this strategy stuck but some didn't. Operating problems caused by wide variations in demand and so changed from the cost leadership business model to differentiate products after sales and marketing analysis. Gradually an investment strategy emerged to remove the 'black teeth' (old unproductive machines scattered across the organisation). These were replaced with good specification machines with reputable suppliers, spares and support. This was done using a standardised four-point process to select the machines. Benchmarking was done at international trade fairs to identify suppliers. Best technology was identified and a maintenance team was developed to cope with the new technology.

About a year ago Blairs appointed a new production director in order to provide more time for the engineering director to focus on putting new products and

processes into the factory. A KTP (Knowledge Transfer Partnership) associate is appointed to install a new machine to improve capacity. A value stream analysis by the KTP associate found that the problems with wide variety of products and demand variations required a different operating system, called QRM (Quick Response Manufacturing), needed to be introduced to Blairs. This has generated the Northside Project to provide lines for different product families. The manufacturing challenge is now on *lead-time* as a result. A decision to introduce a new production planning and control system iBOS led to a review and this has generated further changes.

The budgeting process was initially dictatorial but now there is more involvement of people in the process. Zero-based budgeting has been introduced. KPI's now emerging with budget agreed through persuasion and discussions. Blairs set targets and the bank agrees them on the basis of getting results and meeting growth targets. The finance director expresses that financial stability and consistency over years and keeping your promise are the keys to persuade banks to invest in the business. The company is trying to have good relations with the banks. Loan agreements have various covenants to manage. One of the staff, Leo, works closely with the bank for the last 5-6 years and this helps to maintain ongoing relationships. However, financial information is still too disparate in spreadsheets and so a new MIS has been approved and is being implemented to allow much better access to information so as to better decision-making. Benchmarking was carried out to select the MIS software.

The finance department is encouraging the business to regenerate. For instance, the Finance/HR director acts as a sounding board at management meetings since he is an evaluator. He encourages the board to do the figures first and help them with general rules of capital investment.

The management team also studies the economic indicators and the managers deem to be able to ride out any recession. This is based on Blairs' prediction that they are immune to excess movement in the economic cycle with the business model they have. The company also improved its budgeting process. For instance, the time to produce month end accounts went from a month to 10 days and eventually 5 days again driven by the MD. Manual input of data was automated. A week to stock control was driven down to one day. All expenditure required three signatures to control cost. Much better trend information is now produced and month end takes 3 days.

The company then started to communicate the change required and they started to use the phrase:

The answer is yes now what is the question?

There was no significant resistance to change because all the blockers had been removed at the beginning including the board members. The ultimatum was that either you are with me or you leave. A small group of the faithful bought into the vision and kept with the MD.

Now, the company believes that they are all moving in the same direction. The strategy is directing everybody's daily job. Everything has become a team issue with a team spirit that has been built up over the years. Although there is no formal performance appraisal system everything is visible and peer pressure in the management team is used to balance budgets and to meet targets.

6.0   Strategy Review & Control

The management team has been re-evaluating the business model *periodically*. They initially thought that other companies would copy their business model but no one seems to have done so. A company conference was held this month (March 2006) at Turnberry to communicate and confirm the strategic direction. They discussed and decided what the factory would look like in the future. SWOT analysis was carried out and further initiatives were discussed which all the management bought into.

There are also more informal and frequent review meetings where the leadership team looks at *sales and marketing information* each month. This is the most important factor because they need to know whether they can fulfil the demand. The team who is responsible to review whether the company is meeting the monthly customer enquiries discusses quotations.

Another important data to look at in review meetings is *product variant data* which shows monthly table of demand with trends of all variants. 12 month rolling average is an important data presented to engineering director I review meetings. Product prices and total revenues are then presented in further tables. These tables are reviewed to understand if the strategy is working or not. This allows the management team to check to progress of product change introductions.

The company reviews its performance thorough regular monthly reports in the following functions:
Engineering and R&D; Planning and Logistics; Commercial Services; Marketing; Business Development; Production; Finance and IT.

The company aims to make the best products of its kind in the world - and from this amorphous idea take shape. Pricing and occasional SWOT analysis every now and then, e.g. **QRM** (Quick Response Manufacturing) was arrived at by circuitous route through strategy reviews. Finally, monitoring current activities, managing necessary changes in the company and reviewing the strategy are important parts of the management job, however the company philosophy is that 'the t*rick is to stay flexible but stop yourself being diverted once you have been decisive'*.

7.0   Concluding Remarks

Now Blairs is a successful company with a high growth rate in Scotland with 35% market share and is expanding into the English market. Value added productivity has increased from 44K per head to 80K and their target is 180K. The company is heavily investing and the employee satisfaction is increasing compared to 9 years ago. The employees previously did not register with the local learning skills programs. Now they are well trained and have the chance to develop skills. The company is sharing its wealth with its employees and the MD expresses this with the following statement: "The car park is full of new model of cars and the employees are pretty okay."

Many thanks to those who agreed to participate in this research project. Upon ratification of the underlying models from all the source data, the interviews conducted at Blairs of Scotland will be compared to the results suggested by existing literature and the output will be shared with the organisation.

Finally, should the reader wish to offer corrections or dispute any element of this report, please contact the researcher directly.
Aylin Ates   aylin.ates@strath.ac.uk

Appendix IIC

CASE STUDY REPORT

CEMTRON Ltd, Fife

Aylin Ates
University of Strathclyde

April 2006

1.0   Introduction

The following report is a summary of information gathered from a set of face-to-face interviews conducted by Aylin Ates and Dr. Jill MacBryde from the University of Strathclyde on 20/04/2006. Five members of the organisation were interviewed;

- Jim Gillies - Business Development Manager   at 10.30-11.25
- John Watt - Financial Controller   at 11.40-13.00
- Paul Brown - Managing Director   at 13.40-14.40
- Donald Dawe - Operations Manager   at 14.50-15.50
- Karen Gilliland - HR Manager   at 16.00-17.00

The report is divided into three key areas of interest to this research; strategy formulation, strategy implementation and strategy review & control processes and activities underlying strategic initiatives as the unit of analysis in the company. The report begins with background information to establish the context of the subsequent data according to the interviewees and desk research. The report concludes with researcher's conclusions on strategy processes in the related company.

2.0   Business Context

Cemtron is providing electronic assembly as well as product building and testing as a sub-contractor to electronics industry. The company recently expanded its business to Far East i.e. China, Taiwan and Hong Kong by opening new offices and shifting total assembly and testing to those places while managing supply chain from the UK. The MD frequently travels to China to develop business there however there are challenges in doing business in China, for instance, logistics issues in supplying materials to Chinese provinces. Also, international trading quotes and additional taxes are different for China which results in high material costs. At the same time, the company has been growing and recently moved to a bigger site as part of the company's growth strategy.

Cemtron builds customer's products as acting like the 'shop floor' to the customers. Thus, *customer service* is the main focus for the company. However, the management team deems that it is not always possible to give what people want; as a result staying *flexible* is essential but difficult to achieve.

Brief company history

The business needed more investment in the late 1999s. Ingenico, a French company, did not want to invest into manufacturing those years. ICM, another potential investor, did not put money for some reason either. As a result, Arlington, a London based company in land investment, had seen future and invested in the business. This is when the MD, Paul Brown, joined the company. It is a privately owned independent company. Currently, Bank of Scotland, the Managing Director and another two gentlemen own the company.

Today, Cemtron has one big customer called Ingenico – Chip and Pin Security Systems. Approximately 85-90% of the turnover realised via this customer's big 'one-off' order last year. The management team stated that Ingenico is a sound company with a good order book; therefore it is difficult to turn down such large orders. This big order lay at the core of a cost increase, which contrived to result in a reduced gross margin contribution from the product line. However, Cemtron has

been trying to change this high dependency. They target in the next 2-3 years to reduce dependency by aiming to achieve less than 30%-turnover dependant to this big customer only. Ideally they want to be a larger company in 2-3 years rather than being dependant highly to a single customer. Management team has been trying to find new businesses recently because they are aware of the fact that 'if Ingenico catches a cold, Cemtron will catch pneumonia!'

Organisation Structure

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                          │  Managing Director   │
                          └─────────────────────┘
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│ NPI      │      │                     │ICT/Projects│
│ Manager  │      │                     │ Manager  │
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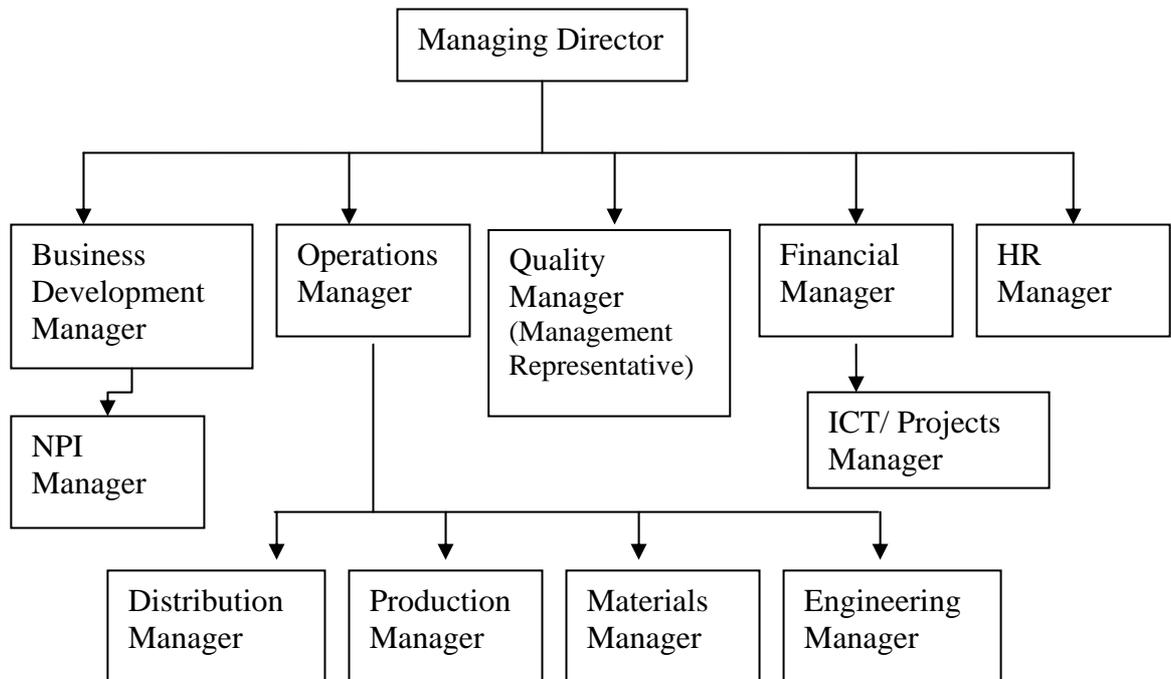
Cemtron has 104 permanent staff with additional temporary staff during busy times.

The following three sections will now explore the strategic activities and processes behind strategic initiatives of Cemtron according to the three strategy process phases of interest.

3.0   Business Focus and Strategic Initiatives

Cemtron focuses on expanding its services so as to increase its customer base. Therefore, customer intimacy and service level are central to the business. Although the company is still highly dependant to Ingenico, the management team expresses that any other new customers are where the company makes money incrementally towards a more sustainable business. In order to achieve established long term relations with the customers, the management team made a conscious decision last year and they introduced NPI (New Product Inception/ Introduction) programme.
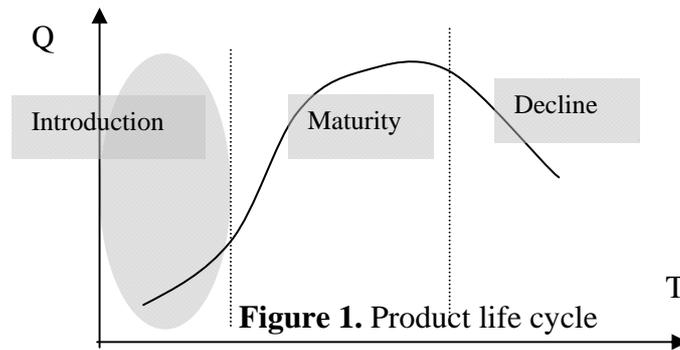
Figure 1. Product life cycle

As shown in above Product Life Cycle diagram (Figure 1), Cemtron wants to take ownership in especially 'Stage-I (Introduction)' where customer still plays with the product in small quantities before going for medium or mass production. Previously, Cemtron had no ownership at Stage-I in customer's product development process. Their objective is involving the customer's product design and product introduction stages so they can build and maintain a longer relationship together (Golden handcuff effect). The company is providing a number of solutions to achieve this involvement in customer's product development and production at an early stage. These are DFM (Design for Manufacture), DFT (Design for Test) and DFX (Design for Excellence) programmes. The firm looks at customer's product, and look for ways to involve in customer's product design and development. They offer design modifications to achieve cost reductions which is beneficial for both the customer and Cemtron. If good work is done at stage I, Cemtron is able to pick good longer relations with the customers. After achieving this, they target to attain volume.

Honesty and being clear to customer is very important in Cemtron. They would turn the work down from the customer if the company believes it is not achievable. For instance, sometimes the job does not suit their manufacturing style, or some type of work needs a big list of different materials and this can be very costly to manufacture. This is very difficult but they use their experience to make such decisions. Although Cemtron does not accept the customer's job because the job does not suit them, they still maintain contact with the customer. They pass the work to another company via Sterling University, Innovation Centre and Scottish Enterprise. This goes back to being open and honest in what they are doing.

Cemtron's customer base has been expanding, excluding the one-off 'chip and pin effect, the level of business generated from 'non-Ingenico' customers rose to £2.8M in 2005 from £1.7M in 2004. 2005 has seen further development in the company's customer base.

Customer intimacy can be deemed to be the company's value proposition. On the other hand, the company still acts like a cost minimiser. Moreover, the company is focused to develop business in China; however material costs are getting high in China due to import tariffs and lack of supply chain management capabilities. As a result, this is balancing the advantage of cheap labour there. If the Chinese were buying all the material, you need to add 5% more on bill of material. However, it is still worthwhile to manufacture in China even though this might change. By the end of 2007 as a current trend, trained manufacturing people in China will be busy to develop their own business. The MD thinks China reacted to this problem quite well

and started to buy companies in Turkey, the USA, Brazil, India, Czech Republic, Hungary and Africa in order to move sub-contract activity.

Investors realise manufacturing is becoming less value. Instead service, warehousing, logistics are more high value businesses. If you are looking for higher value, you need to know how to grasp opportunities. These service opportunities require a different skills set and disciplines. People in Europe, potential partners and Far East helps realise this opportunity. That's why the MD is spending more time out recently. Technology is also enabling to find out these opportunities.

The main business focus and strategic initiatives mentioned during the interviews are:

- Induction of NPI (New Product Inception/ Introduction) programme in order to establish long term customer relationships (*golden cuff effect*) before targeting volume.
- Developing business in China and shifting manufacturing and assembly to Far East
- Moving from being a sole manufacturer to a service provider regarding logistics and warehousing which are deemed to be higher value businesses in the UK.
- Reducing dependency to one major customer and instead diversification of the customer base
- Developing and implementing an Internal Communication Process

4.0   Strategy Formulation

Firstly, the Company worked on an exit plan to recover the money lost in Australia, original parent company. Then they started to look into managerial skills needed to develop the business (i.e. new customers, new value streams). The management style they adapted before was like 'that's the umbrella' and the staff was expected to follow the umbrella. In October 2005, the MD and two other shareholders from Arlington did a management review to look into different management styles, growth issues and people involvement in decision making.

Developing managers and how they bring on their people and develop them are complete changes in the organisation. Up to this point, the staff was told what to do. The MD was making all the decisions. However, the MD recognises that no business can run totally bottom-up or top-down only. There have to be a balance. However, top-down approach was more dominant before. It has been changing dramatically in today's business.

Also, to achieve the growth requirements the MD has to go out more to pursue opportunities. There are a lot of opportunities out there. The MD's responsibilities are delegated to other managers on the basis of trust now. On the other hand, this management style changes brought along difficulties because you are telling people what to do for 4-5 years and it is difficult to change that culture. The Company sees cultural and management style changes as a process in which they are evolving regarding management styles and values.

The Management Team is looking at how to develop strategy currently. They are looking at different management tools and techniques. The purpose is to understand the core elements in what they want to do in the future. In strategy development exercise team working is deemed to be important.

The Company aims to move things forward and grow business further. The business values £16M now but they target to carry the business to be worth of £61M. The management has come up with this target figure. Three investors came together and they discussed how to manage the business for *growth*. They looked at sensible opportunities although they already knew which services and markets they wanted to get into. Strategy development will guide them to figure out what they want out of that opportunity and how to get there. The target is once they achieve the growth to see the profit etc. along with an exit strategy. The investors and the board put a strategy together to achieve this.

Cemtron's mission statement is:-

Cemtron Limited aims to provide competitive, customer driven, total quality solutions to the electronics sub-contract manufacturing sector.

25 years of experience in industry as well as *what if scenarios* and *risk analysis* are the management tools that they use to analyse opportunities. What the risks are? Is it worth doing? What the opportunities are? Then the decisions are made. Retaining the customer is deemed to be very important. Trust in relationships with customers and suppliers have a serious effect on business. The Company tries to do better for the customers than they got that service before. Customer surveys show what the end customer is getting out of the service level Cemtron is offering. According to the interviewees what leads to success are:-

- Trust in business
- First impression
- Performance (What you do is what you say! Trust builds thorough that)
- Get it right and enjoy it
- Work together almost like in marriage

Each financial year starts with a plan which is a *budget* basically. They look at sales and customers, get revenue from customers. Then they look at their business to define the confidence level of doing that. Management Team has a rough idea of their capacity. Everything derives from this top line number, quarterly and monthly buckets give them the sales revenue of existing and new revenue. Then they look at bottom figure, which is profit before tax. This is done in the interest of shareholders. 95% of this done by MD and Financial Controller. Departments are not given individual budgets.

The next stage is *forecasting*. The industry is fast moving as a result, they can't look beyond a few months. Beyond that is about guessing really. Lead times for some components are 16-20 weeks. They have 3 months forecast and the rest of the year is estimated in the budget. That's how they operate. The management team also looks at human resource planning in terms of overtimes and temporary workers in informal meetings.

Profit is why they are there; the business is a very cash hungry business. They need to look after the cash very carefully. Overtrading and growing require a good cash management. Maintaining decent payment terms for suppliers and customers is taking a lot of management time. Invoice discounting with the bank is very costly but served the purpose in terms of easing the cash flow. Their customers are all UK based therefore they do not do credit checks on customers. They know what they are making from each customer. They have a *basic pricing model* to quote customers. It

is a flexible model and unit based. However, there is a need for a systematic procedure in business to ease invoicing process.

They discuss and evaluate what is going on the shop floor in daily morning meetings. The Company measures themselves through KPIs in the areas of financial indicators, with the purpose of checking whether they are making money, are efficient, and are solvent. They look at these on a monthly basis. On a daily basis all senior management team meets, they report every manager (10 managers) what is going on in the business. Sales and forecasts are reported them. They also have a daily cash report analysis between the MD and the Financial Controller. Thirdly, in terms of stock targets they look at stock reports on a daily basis too.

How they do business is slightly different in Cemtron. They are very open to customers. They make a decision and if the customer does not like that they would discuss that openly with the customer. Cemtron offers to open its warehouse to them electronically or physically as well. Next stage is transparency to customers by letting them see their stores. However, open culture with the customers can cause problems as well. The MD deems that sharing the balance sheet with the customers can be risky sometimes since the competitors might see Cemtron's pricing etc. Thus, they are trying to find a fit.

They don't have big competitors. There are three big component suppliers in the UK. Cemtron does not monitor its competitors greatly. Cemtron is probably too focussed on pricing and they are too much involved in what they are doing rather than looking at competitors. Maybe they should step back and look at what competitors are doing more. The MD does not know the answer. They have a model of NPI and large facilities in warehousing down the road. These are all unique to Cemtron. This is achieved successfully in medium volume business.

It is a crazy market they are in. The MD describes the market as follows:

> *'Love it or hate it! Business environment is unstable and dominated by Far East. Forget lean! You need to reinvent yourself. Fit! You can improve what customer wants but you cannot change what customer wants. You will never be able to sell something they don't want.'*

The financial controller realises the need of having to move with the environment. Things are tight in their business environment. When they have separate business units they might give budgets to each department.

5.0   Strategy Implementation

Senior management team meets every morning at 9am to discuss issues and progress. Procurement and Sales is involved in these management update meetings. This practice is in line with company's 'Open Management' strategy.

The company recognises the need for more written down strategies. At the moment 5S is working well in company.

The company puts a lot of emphasis on communication and proximity to customer. However, the same level of communication seems to be failing within the company. Managers see the need to implement effective communication strategies throughout the company.

Transparency to customer is very important in company's strategy. They have 'open book pricing' strategy that enables customers to see all the material cost. The company does not want to rip the customer off. The aim is to share the cost

ownership with the customer. If Cemtron achieves 20% cost cut, 13 out of 14 customers agree to share the saving. They are having cost meetings with customers regularly.

Management team is working on company strategy and targets currently. Before it was simple because a venture capital company owned them. They focus on financial targets, growth and personal development plans for managers. In order to make the broader strategy, they focus on personal development. They use personal confidential feedback thorough questionnaires.

The Management team is having daily 9 o'clock coffee meetings. They started to have 'Breakfast Meetings' with 10 people from manufacturing. The shop floor people can ask questions to MD that way the management team is trying to engage people in what is happening in the organisation and what should be done. Also, Pre-shift meetings for shop floor people exist in the firm. Communication exercise aims to understand how to implement communication strategy. There are team briefs but not on a regular basis. The MD wants to continue breakfast meetings in small groups to make people comfortable talk through things.

The company has KPIs and targets on the shop floor. These targets are communicated on notice boards on the shop floor. KPIs are set for mainly manufacturing e.g. absenteeism etc. Operations manager is doing 'Cause Analysis' for stock management. This is a daily activity. However, the MD is interested in looking at financial matrix, ROI, customer satisfaction and change management teams.

They measure performance through balance sheets and customer satisfaction surveys. In terms of individual performance, customer perception, informal feedback from supply chain, financial terms, and balanced scorecard are used. Individual appraisal systems do not exist in the firm at the moment.

The company does not spend a lot time to measure employees' performance because labour cost is not significant in overall cost. 70% of selling price is material cost, 9% is direct labour cost plus overheads and profit. As the larger part of the business is materials, they don not spend more time on employees because there is little effect on costs. They spent £9million on material last year; therefore their focus is material costs.

The biggest threat for the business is losing customers to low cost competitors. However, the Company managed to survive all those threats maybe through luck as well. There are change management teams in the organisation. This is done through 'Change Leadership Program'. Formal cross-functional teams are set up as project teams. This is not their primary job but they meet and come up with cost saving proposals. The management team trusts the staff as it is expressed:

'They know their job best so they can improve it better than anyone.'

That's a new approach in the company. They also look at customer satisfaction questionnaires before implementing changes.

In manufacturing, people have strong opinions about things so it is difficult to implement change. *'Why fix it if it is not broke!'* attitude was widespread. The HR manager deems that it is all about communicating with staff. More work needs to be done in communication process. Managers will go through a training program on how to communicate goals and objectives to staff. Thus, they work on formulating a communication strategy. To achieve this, they will look at various form of

communication, for instance, some people prefer visual communication via charts etc, and others prefer team communication. They also talk to staff to buy in changes and appreciate the changes. The HR department is working on 'Change Leaders Program' by putting people that have never worked together before. Thus, they are hoping to achieve people coming with fresh eyes and bring new ideas to what others do. 5S program is effective and has been facilitating some changes in the firm.

The company strategy in communication is still changing and they are working on that at the moment. A 'Communication Project' is going on at the moment. How to communicate, there is a right and wrong way of doing that. What people want to hear, what they don't want to hear and how they want to hear it…Whole communication issue is one of their biggest problem. For instance, shop floor staff should either be involved or responsible for decision making. Thus, information is important to pass. That is why what to communicate is an important issue. People need information to make decisions. The managers express that:

'…you have got to tell people what is going on in the company. The weakest areas in British industry are related to this communication problem.'

In terms of reacting to daily changes in business, the company uses a very effective reporting system via EFACS, an ERP system. Senior management team meets every morning to see how they are doing, what the cash flow is etc. To achieve this, the Financial Controller downloads the information in the morning and presents it to the MD. That way they can react in the light of almost real time information. In fact, they cannot wait at the end of the month to hold these meetings because the information would be obsolete by that time.

The Company has unique capabilities in its sector. They can build volume in the UK and in Far East, can achieve final customisation, and ship it out, providing warehousing, repairing services, and offering an open and a friendly relationship with customers. They also work in partnerships with design houses. Design and development is very important. The management team deems that:-

> *'In terms of moving the value chain you need to be good at design and development. But in the UK there is a culture that needs to be changed that good students don't want to go to manufacturing and design anymore. '*

To achieve the strategic leap, they will move up the managers to the next level via *Succession Plans*. Motivated, trained staff that accepts responsibility is deemed to be crucial. Get them on their feet! Formulating *training strategy* for the shop floor especially cross products was another area that they focused on. The most difficult bit is *making things happen!* It is not only getting numbers together but also the HR manager is more interested in developmental and cultural issues. The prevalent culture in the organisation is 'Achievement Culture'. As they want to expand the business, more people should take responsibility. A series of courses in managing results, leadership, customer retention and quality, communication, time management, goal setting, business context and active listening, and so on is planned by the HR department.

6.0   Strategy Review & Control

Finance department meets daily to review business trends and results. Besides the Company has a quarterly review. Management team holds daily meetings, 9 am meetings, to review business results. The purpose of these meetings is sharing

information progress in order to better services by acting as the customer's factory. Operations Manager, Quality Manager, Finance Manager, the MD and Business Development Manager attend these morning meetings.

The management team can discuss things such as the previous day activities, sales input, what kind of inquiries hit them and those in progress without offending each other. The purpose of the meeting is sharing progress in order to better services by acting as the customer's factory.

7.0   Concluding Remarks

During the interviews the interviewees put a lot of emphasis to honesty, fairness in doing business with customers as well as having a flat structure and open-relationship among management team. One of their philosophies is to get back to the customer with either good or bad news fast so as to help the customer make plans for recovery.

It is important to employ good people especially among the technical staff and engineers. The company is very flat in terms or hierarchical levels in management team. Managers do not feel as if they are looked at under microscope. The MD trusts his management team and spends most of his time in Hong Kong to develop new businesses and leaves day-to-day management of his company to his management team.

There are not much structured ways of doing things in Cemtron. There are guidelines but mostly informal. The company does not want to block people's imagination by limiting them with too many structures.

Many thanks to those who agreed to participate in this research project. Upon ratification of the underlying models from all the source data, the interviews conducted at Cemtron will be compared to the results suggested by existing literature and the output will be shared with the organisation.

Finally, should the reader wish to offer corrections or dispute any element of this report, please contact the researcher directly.

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Appendix IID

CASE STUDY REPORT

HOUSTON CO-PACK Ltd, Paisley

Aylin Ates
University of Strathclyde

March 2006

1.0   Introduction

The following report is a summary of information gathered from a set of face-to-face interviews conducted by Katherine Davis and Calvin Burns from the University of Strathclyde on March 2006. The researchers also work on 'Manage Processes' project. Three members of the organisation were interviewed;

- Managing Director, Bill Robb
- Operations Director, Bill Dickie
- Operations Manager

The researcher, Aylin Ates has written this report by re-listening to the interview recordings and analysing the company documents. This report will be peer reviewed by one of the above researchers who conducted the interviews or who has extensive knowledge of the company from the academic team at Strathclyde University. The report is divided into three key areas of interest; strategy formulation, strategy implementation and strategy review and control processes and activities underlying strategic initiatives in the company. The report begins with background information to establish the context of the subsequent data according to the investigators and desk research. The report concludes with researcher's conclusions on strategy processes in the related company.

2.0   Business Context

Houston Co-pack provides co-packing and bottling services to support the whisky industry in Scotland. This involves customised packaging and sealing of bottles of spirit. There are six major businesses in the whisky industry with Houston really only getting business from two, Chivas and Allied. Allied was recently taken over by Chivas which has left Houston Co-pack in a vulnerable position with 85% of their business coming from one customer.

Houston's are faced with a number of competitors, often taking the form of small "cowboy" companies that enter the market to "make a quick buck"; they undercut Houston on price but in doing so often file for bankruptcy, later reappearing under another name. These competitors do not always provide a reliable service as Houston's strives to do but due to the pricing matrices used by the customers still win the business. Houston's have better people (management team), they don't try to be the cheapest so they are more financially sound and have better I.T. systems in place. They also have more space in their warehouse and therefore can do things on a bigger scale. They demonstrate that they are professional rather than just in it to make money.

Brief company history

Houston Co-pack started out providing a transport service to the major distillers. The haulage side of the business was sold off and they concentrated on co-packing. They were sold to Smiths Packaging in 2000. Today Houston Co-pack is a small private company who provide a bonded warehouse service to the spirit industry, focusing on co-packing and promotional work "taking the hassle away" for the major distillers (since the distillers are not good at small production runs and it's not economic for them to do this). Their two major customers have been Chivas and Allied. They have recently invested in bottling machinery; by making significant improvements in their production processes and with changes in their management

team they have grown recently from producing 50,000 cases in 2004 to 150,000 cases expected in 2006.

Organisation structure
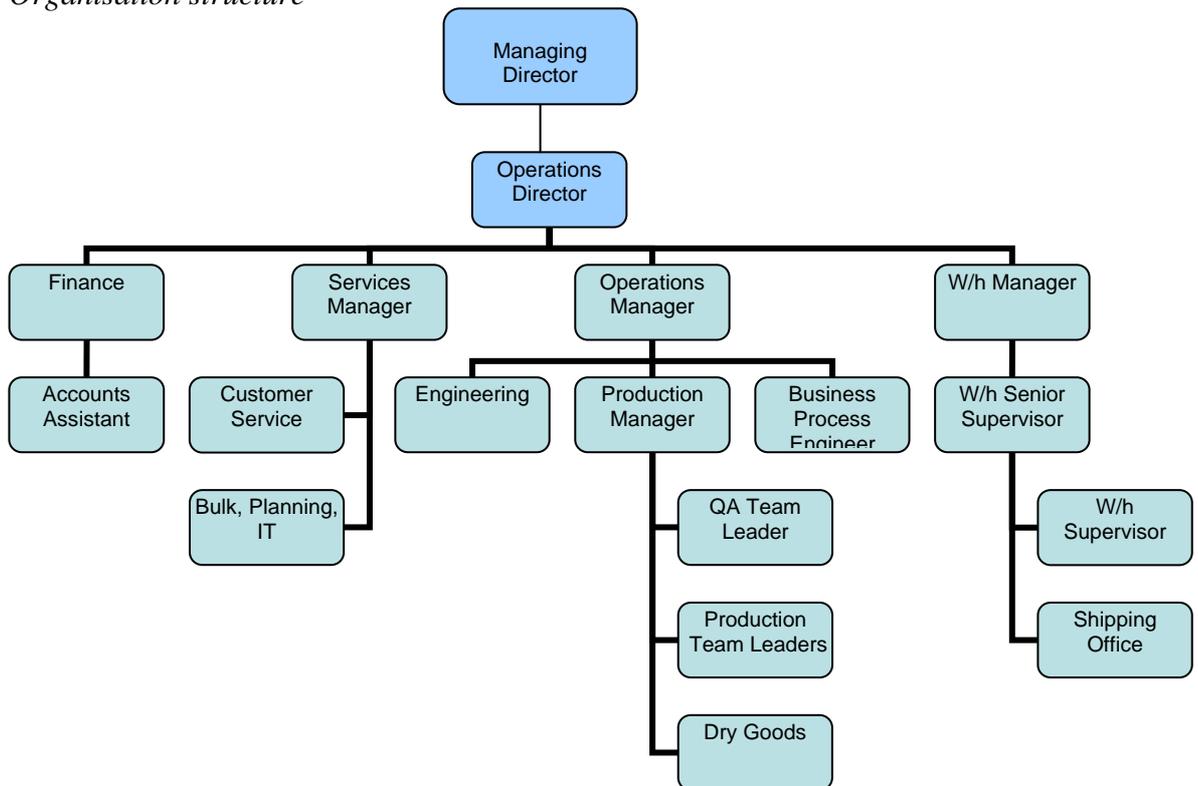
Houston Co-pack has 77 permanent employees with an additional 110 temporary staff during busy periods in order to cope with the seasonality in demand. The turnover is EUR 4,804,000 and the annual balance sheet total is EUR 1,372,000.

The following three sections will now explore the strategic activities and processes behind strategic initiatives of Houston Co-Pack according to the three strategy process phases of interest.

3.0 Business Focus and Strategic Initiatives

In 2001 there was no real direction of the company; one or two people who 'did their thing' managed the business in an ad-hoc style, there was no professional management team. Since the company was taken over by Smiths Packaging in 2000, Houston Co-Pack has been developing into a successful business. The main business focus and strategic initiatives mentioned during the interviews are:

- Focus on bottling rather than co-packing
- Diversification of the customer base to reduce dependency to one customer
- Improving production processes and productivity
- Price restructuring
- ERP, MIS (Management Information System) implementation
- Organisational restructuring regarding roles and responsibilities

- Building ongoing relationships with customers

The following sections will expand on the strategic thinking and activities that Houston Co-Pack carried out in order to achieve the above strategic initiatives.

4.0   Strategy Formulation

Company goal has been to get a systematic process in place to develop strategy and planning and continuous improvement. Prior to this there was no strategy; they took what business came before 2000 and 2001. Prior to 2001 the management team did not look at the strategy of the business.

They carried out a SWOT analysis and from this developed a mission and a strategic plan. This vision has been communicated throughout the organisation. They did this through briefing people and through training sessions. This message was repeated *'saying it once or twice is not enough you have to say it all the time'*. They assessed customer needs, then talked to the customers and competitors and restructured their service offering. They measured each job's profitability and realised that certain jobs were no longer economical to do. The company's pricing strategy has emerged after this activity. The key thing in the strategy was to focus on the key players in the industry, this carries risks especially since now 85% of business comes from one customer. They try to establish an on-going relationship with these customers so they don't want to take the business elsewhere. It is necessary to have a constant dialogue with these people to understand what is going on.

Inter-organisational relations are a key factor. This is about individuals at Houston's building relationships with key personnel in the client organisations. The problem is that it is often the case that by the time a relationship based on trust has been established with a key individual in the client organisation, that individual is re-deployed soon thereafter and the process has to begin again with a new individual (e.g. during acquisitions – Chivas taking over Allied). Therefore, it becomes difficult to establish good inter-organisational relations. Often, the new individual in the client organisation is not aware of who the reliable companies are and will give the business to the "cowboys" since they are cheaper. For example, there was a job change at Allied, this new person checked out prices and Houston's was 20% higher than anyone else. Rather than take this lesson on board and take this as an opportunity to reassess their prices they ignored this and as a result Houston Co-pack lost £500,000 worth of business.

This loss of business was the impetus to improve productivity and to work on offering lower prices. The team leaders were unable to see how they could make a difference in prices. In 2005 they started to win back work from Allied, their pricing became more competitive and again started building up relationships with people at Allied, then Allied were taken over. However, they are in a better position now due to the productivity improvements. One key change in achieving some of these improvements was moving the warehouse manager to be the operations manager. In addition to this bringing in a 'fresh pair of eyes' in the form of a KTP (Knowledge Transfer Partnership) associate from University of Strathclyde has been important. *'Getting the right people in the right places'* has been important for Houston Co-pack.

The company deems that it is important to make people feel that they have something to contribute. The team leaders had felt that nobody listened to them before this organisational restructuring regarding roles and responsibilities. The new management has asked them what is not right and how these problems can be fixed. This is the start of the strategy process, '*developing the person in the role*'. The team leaders are now more confident that they have the backing of the management (discipline, organising shifts, getting more output etc). Team leaders today are better trained and more able to contribute to the business. They feel like they are part of the organisation and part of the team. The managers believe that '*They have come a long way, but still have a long way to go*'.

Houston Co-pack seems to have a good level of awareness of what is happening in the business environment. Senior managers have good contacts built up based on their history as ex-distillers and through the Association of Distillers.

They speak to customers to anticipate trends. This is done through both formal and informal channels. The managers talk to the customers and they hear "gossip" from drivers. They read the Allied in house magazine. There are lunches with the managers at Allied, which acts as a crosscheck to what is happening in the business. Since the managers (with the exception of the managing director) are all ex-distillers they have many contacts in the business and therefore have good sources for information. The information from these different sources is pieced together and checked as to whether it "fits into the jigsaw".

Scanning and analysing the business environment seems to be done fairly informally in the firm. The Operations Director is the chairman of the Bonded Warehouse Keeper Association and obtains information through this position, also the "cowboy" companies don't register with this therefore they can have a good idea of who they are. A lot of information is gained by word of mouth especially through feedback from HGV drivers.

The strategy of the company to focus on bottling emerged as being the right thing to do which is based on the competitive environment they operate in. Consequently, a major opportunity evaluation to the strategy was the decision to go into bottling. This strategic choice was a conscious decision due to a number of other "cowboy" companies entering the market and undercutting Houston's on price. Since major investment in machinery is required to bottle it is more difficult for these "cowboys" to enter the market and copy this strategy. Small batch bottling is more profitable, more predictable and more strategically important to customers than the co-packing.

The customers believe if Houston's don't do their co-packing for them, someone else will. They still are doing the co-packing but the future direction of the business is to get more involved in bottling which has led to the purchase of a bottling line for miniatures and in turn has led to the purchase of more vats. The difficulty to gain business from any of the other major distillers other than Chivas and Allied pushed them into deciding that bottling should become more significant so they have invested into improving bottling facilities and now virtually all of investments are in this area.

The bottling part of the business is more stable than the co-packing. With the short run bottling the turnover is about £300,000; they are hoping to get this up to £500,000 this year. The entry cost (for competitors) is high therefore they see this as a good strategy since it is difficult for new entrants to come into the market. The

focus now is on trying to build this up so the business could survive if the co-packing was largely reduced because that could happen.

To sum up, Houston Co-pack wants to be the leading provider of spirit packaging services to the whisky industry and to be good value for money in providing this service. Their aim is to take the hassle away from big distillers (a lot of small jobs are a hassle for them). The more they can do for them the better. This vision has been communicated and shared amongst the organisation and this alone has changed attitudes because previously the customer was seen a 'pain'. The more they can give that level of service the more work they will earn and the better price the customer will pay.

5.0 Strategy Implementation

Then, they looked at things like continuous improvement and workflow in order to improve the efficiency of production processes so as to be able to cut prices.

Before the Operations Director joined the company, they didn't analyse why they were losing money on particular jobs. Thus, the Company looked at profitability of each jobs. Consequently, standard operating procedures (SOPs) have been developed so they are able to constantly assess if they are on target to meet these. They also measure financial KPIs (Key Performance Indicators). The key measures for them are:

- Number of cases vs. number of man hours (this is the most important)
- Capacity of warehouse (this becomes a constraint on production)
- Profitability

Moreover, the management team worked on workforce. The management team had identified that there was a problem with the team leaders lacking training and therefore not performing or willing to change. When the team leaders went to management asking for a pay rise they took this opportunity to get the team leaders to take part in a training course. The management team was aware that the team leaders can make a big difference. The team leaders need to be getting the best out of their teams at all times. They do seem to be picking this up now and the training course intends to give them the skills to manage their team. They have also done this through making the team leaders aware of how much it costs the company not to meet standard operating procedures. The Operations Manager tried to convey to team leaders that the organisation was investing time and financial resources in training them (as noted above) and hoped that in return, they would become more committed to the goals of the organisation.

As a result, the last five years have been a period of significant transformation for Houston Co-pack. This transformation has included changes in the following:

- Management Structure
- Accounting systems
- Production planning systems
- Warehouse
- The way in which they dealt with people

Management Structure

There is now a senior management team, which was not present before.

Systems

There has been a change in the I.T systems in place. When the Operations Director came to the organisation there was one PC, they have since developed a better IT system which is linked to all departments and in which they can do all the customs and excise paperwork on.

People

There was suspicion among the workforce due to a lack of communication. The style of management at Houston's before the Managing and Operations Director came was quite dictatorial. Previously dictatorial style of management brought about people seeing management negatively, which resulted in people not really working together to achieve an objective.

They now have more team meetings to brief people about what is going on in the organisation. They have tried to demonstrate that they will involve people more. They have done this through presentations on financials, which has a positive outcome when they are doing well since employees see the benefit to themselves (bonus payout) but when there is a downturn in business they lose interest and tend to blame management for this downturn. They hope that by demonstrating commitment to employees, they will get commitment back (they give decent pay rises – more than the national and at times bonuses have been paid twice a year). They try to be open with employees and the Operations Manager makes the effort to go down to the shop floor everyday making employees realise they are serious about changing. There is still some resistance "why don't we do it the old way".

The focus is on permanent staff because they will pass on views to temporary staff. The key thing was to make the change in organisational structure, what people were responsible (what their position was) for by having job descriptions, and a way of developing people through a training needs analysis and a training plan so that they could train people to do the job well.

This changing of attitudes has been a long process; 5-6 years later they are still not home and dry. They are currently training team leaders for continuous improvement, talking about the problems and trying to get them involved empowering people and recognising problems and then getting other people in to do the training. This was a change in style. Previously they had been told what to do. This was scary for people. People were not used to being in the position and allowed to make decisions.

6.0   Strategy Review & Control

The managing director ensures that the management team revisits strategy every year because of the dynamic nature of the industry and following that, a proper business plan is drawn up which identifies company goals, departmental goals and personal goals. They haven't got to the personal goals stage yet but they are getting there. It's like a checklist that they can check things off and check if they are still doing the right things. They are trying to work this process down the way. They are concentrating on team leaders at the moment, making sure they understand how their role fits into the business and making them feel like they have something to contribute.

In short, they have a couple of strategy meetings each year. This is to check if the business is on track. Out of these meetings the managers have actions plans. This is done at the year end because between January and June they are less busy. They

have looked at trying to get in other work during the quiet, early part of the year but they have never been particularly successful at this. They like to get plans in place at this point and then they have a small review mid-year.

7.0   Concluding Remarks

Since being taken over by Smiths Packaging, Houston Co-pack is developing into a successful business. They are establishing themselves as a professional service provider, who is in the business for the long-term as opposed to being out to "make a quick buck". This has been done by developing a clear vision of what the business is. In addition to this developing a senior management team to run the business and getting "the right people in the right places" has also been essential to their turnaround. Improvements have also been made to production processes, which have allowed them to improve their prices. However, there are still issues with their pricing matrices and building up on-going relationships with their customers. They are currently in the process of a training programme for team leaders, which should help to create more trust between the "shop-floor" and management. They have the benefit or good formal and informal sources of information on their competitive environment.

Furthermore, 2000 and 2001 is a key period when Houston Co-Pack was acquired by Smiths Packaging in 2000, Smiths appointed a new Operations Director, Bill Dickie with corporate experience in February 2001. The company started to develop a more professional management team to run the business. In 2001, the company started to focus on consistent strategy with a clear focus on customers and services. The firm recognized the need for a better MIS (Management Information Systems) and in 2001-2002 they focused on production processes and systems. These attempts improved the profit and they also employed 15 more people. The company analysed job costing and profitability in 2003. The company invested in implementing an ERP system in summer 2004. However, they lost business from their major customer Allied in 2004 due to high prices. Then, the company restructured its price strategy in 2004-2005. Unfortunately, the business did not make profit in 2004 as a result.

The company managed the turn around the business just after this loss. In 2005 the company focused on process improvement and internal restructuring in order to better their price. They positioned themselves strategically in 2005, these improvements have given fruits shortly and Allied returned to Houston Co-Pack because the customer service level was better in Houston Co-Pack. The company went on winning new customers in 2005-2006 in order to reduce its dependency to one major customer. The firm collaborated and invested in Tomatin, a new customer, and in 2007 100% of Tomatin production has been done by Houston Co-pack.

In conclusion, the business increased sales and profit as well as providing more jobs to people. The sales increased 90% since 2000, profitability increased 7% and the full time employee number reached to 80 people in 2007. Houston Co-pack is in the business to provide a long term professional and reliable service. Houston Co-pack is now a successful company with a clear strategy and a professional management style.

Many thanks to those who agreed to participate in this research project. Upon ratification of the underlying models from all the source data, the interviews

conducted at Houston Co-Pack will be compared to the results suggested by existing literature and the output will be shared with the organisation.

Finally, should the reader wish to offer corrections or dispute any element of this report, please contact the researcher directly.

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Appendix IIE

CASE STUDY REPORT

TFC Cables, Wishaw, Motherwell

Aylin Ates
University of Strathclyde

August 2006

1.0 Introduction

The following report is a summary of information gathered from a set of face-to-face interviews conducted by David MacKay and Prof. Fran Ackermann from the University of Strathclyde on 03/08/2006. The researchers also work on 'Manage Processes' project. The company's participation involved interviews with the senior management team, a selection of operational level staff and Jacqueline Nelson, the Managing Director. The purpose of these interviews was, through open-ended questioning, to discuss the successes and failures of the organisation and the associated strategic management practices as seen through the eyes of the organisation. Four members of the senior management were interviewed:-

- John Morgan - Production Manager
- Colin Phillips – Quality Manager
- Neil Laird – Finance Manager
- Jacqueline Nelson – Managing Director

The researcher, Aylin Ates has written this report by re-listening to the interview recordings and analysing the company documents. This report will be peer reviewed by one of the above co-researchers who conducted the interviews or who has extensive knowledge of the company from the academic team at Strathclyde University. The report is divided into three key areas of interest to this research; strategy formulation, strategy implementation and strategy review and control processes and activities underlying strategic initiatives as the unit of analysis in the company. The report begins with background information to establish the context of the subsequent data according to the interviewees and desk research. The report concludes with researcher's conclusions on strategy processes in the related company.

2.0 Business Context

Located in Excelsior Park, Motherwell, TFC is a privately owned tier one electronics sub-contract manufacturer. Established in 1971, TFC's initial business was in the production of specialist electrical assemblies and cable harnesses for IBM in Greenock, Scotland. TFC has since expanded and diversified and now provides a range of services such as high level assembly, box build, prototyping, supply chain management and design in addition to the initial service offering. (See www.tfcasm.co.uk for more details). Its current turnover is £5M although in previous years this has been as high as £7M. Its current customer base includes NCR (cash machines), Barcrest (games machines), Ideal Boilers, Mass spectrometers and Selectron (electronics manufacture).

Brief company history

When the organisation was founded in 1971, there was little complexity to either the organisational structure or product range. In other words, one director, one customer, one product and a large operational staff all were performing the same task. Over the years, this has changed significantly, and there are now three owners who respectively hold the position of CEO, MD and Materials Director. There is a further team of senior managers, a business development director an agent and a grass roots leadership structure in the form of team leaders. There is also a complex

product portfolio, complex supply chain and approximately 25 customers. In the 1990s, the company was largely tied to one customer – NCR – and pursued what it freely admits as high margin contracts. The company now has multiple customers and a significantly more complex supply chain (c. 6000 components from around the world, flowing into c.1000 products).

TFC operate in a market where there is much competition, particularly from overseas, and where there is a strong emphasis put on cost for volume manufacture products. In recent years, they have seen 4 of their major UK competitors go out of business. TFC have not restricted themselves to any one particular sector of client (e.g. consumer electronics, industrial, aerospace etc.) in order to diversify its customer base. The management team at TFC have identified a number of challenges for the future which they need to address.

Firstly, they recognise the threat posed by low cost countries in terms of both remaining cost competitive and also the reverse engineering of products/stealing IP. To this end, they have considered investing in a foreign factory but decided against such a move – instead they have partnered up with an Estonian manufacturer for the provision of all mass manufactured components/assemblies.

Secondly, they recognise the increasing customer demands for flexibility/value added service. This has led them to explore innovative ways in which they can create competitive advantage. This has resulted in an increase in the level of indirect staff which brings an associated cost burden to the business. Also, TFC has only recently adopted more modern working practices around shop floor management etc. (this coincides with new middle management joining the organisation approximately two years ago). Before that time, workers were all paid minimum wage regardless of performance and there was little rationale/control to the production operation. This is intended to facilitate the valuable flexibility of the operation whilst minimising cost.

Finally, they are concerned about the level of new business which they can win (e.g. declining local market size) due to a declining number of OEMs/potential customers within the UK. To address this point they have staffed up their sales team and are looking to expand to foreign operations of existing customers (e.g. Mass Spectrometer manufacturers Waters – they are ramping up production for their American operation following excellent service to the UK operation) by building strong relationships and providing a top notch service.

The business must continue to address the changing nature of the market in which they compete. They recognise that they have never worked so hard for so little return and that over the coming years, finding further customers and doing everything possible to develop them whilst improving internal efficiency will be the key. The company anticipates making approximately £100K profit this year, recovering from two previous years of making a small loss (< -£100K). Prior to these three years, the company recorded significantly higher profits (from c. £700K to over £1M). The MD stated that the company has only had 2 loss making years in the last 35 years (2004, 2005) however; she captured the current mood of the business well when she said that:

"…we seem to be working a lot harder for a lot less reward now!"

The business currently employs about 150 staff. The current estimate is approximately a 50:50 ratio of indirect to direct staff (direct staff being classified as

operators only and indirect staff being classified as others including all office staff, management, stores and porters etc.). This reflects in part the move the organisation has undertaken to change from a high volume manufacturer to more of a service provider. There is a day shift and a permanent night shift. All employees are permanent (there are no temps) but when volume is low, they ask for volunteers to take holiday or unpaid leave. They have been known to make people redundant in such times. In terms of cost associated with the business, there is approximately a 50:50 split between materials and labour costs.

The following three sections will now explore the strategic activities behind strategic initiatives of TFC Cables according to the three strategy process phases of interest.

3.0   Business Focus and Strategic Initiatives

The main business focus and strategic initiatives mentioned during the interviews are:

- To change from a high margin, small number of customers and high volume manufacturer to more of a service provider that is serving to an increasingly diverse customer base.
- Diversify its customer base in response to previous bad experiences from depending on one or two major customers.
- Expand to foreign operations of existing customers and building strong relationships (due to declining local market size within the UK).
- To response threats from low cost economies on the topics of remaining cost competitive, the reverse engineering of products, preventing of stealing IP (Intellectual Property) without moving operations to China and/or India.
- Partnering up with an Estonian manufacturer for the provision of all mass manufactured components and assemblies (investing in strategic partnerships).
- To facilitate the *value added flexibility* of operations whilst minimising cost.
- Improving internal efficiency in order to stay competitive.
- Focusing on removal of waste in order to deliver flexibility and profit so as to be a high value service provider.

The following sections will expand on the strategic thinking and activities that TFC carried out in order to achieve the above strategic initiatives.

Organisation structure

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┌──────────────────┐        ┌──────────────────┐ ┌──────────────────┐ ┌──────────────────┐
│ Mick – Business  │        │ CEO – Frank      │ │ MD – Jacqueline  │ │ Materials        │  ┐
│ Development       │        │ Ferris           │ │ Nelson           │ │ Director – Fiona │  │  ┌────────┐
│ Director         │        │                  │ │                  │ │                  │  ├──│ Owners │
└──────────────────┘        └──────────────────┘ └──────────────────┘ └──────────────────┘  ┘  └────────┘

┌──────────────────┐  ┌──────────────────┐ ┌──────────────────┐ ┌──────────────────┐ ┌──────────────────┐
│ Sales Manager –  │  │ Quality Manager –│ │ Production       │ │ Management       │ │ Engineering      │
│ Graeme Wands     │  │ Colin Phillips   │ │ Manager –        │ │ Accountant– Neil │ │ Manager- Lindsey │
│                  │  │                  │ │ John Morgan      │ │ Laird            │ │ Evans            │
└──────────────────┘  └──────────────────┘ └──────────────────┘ └──────────────────┘ └──────────────────┘

          ┌──────────────────┐  ┌──────────────────┐
          │ Production       │  │ Technician       │
          │ Supervisor       │  │ Group            │
          └──────────────────┘  └──────────────────┘

          ┌──────────────────┐
          │ Production Staff  │
          └──────────────────┘
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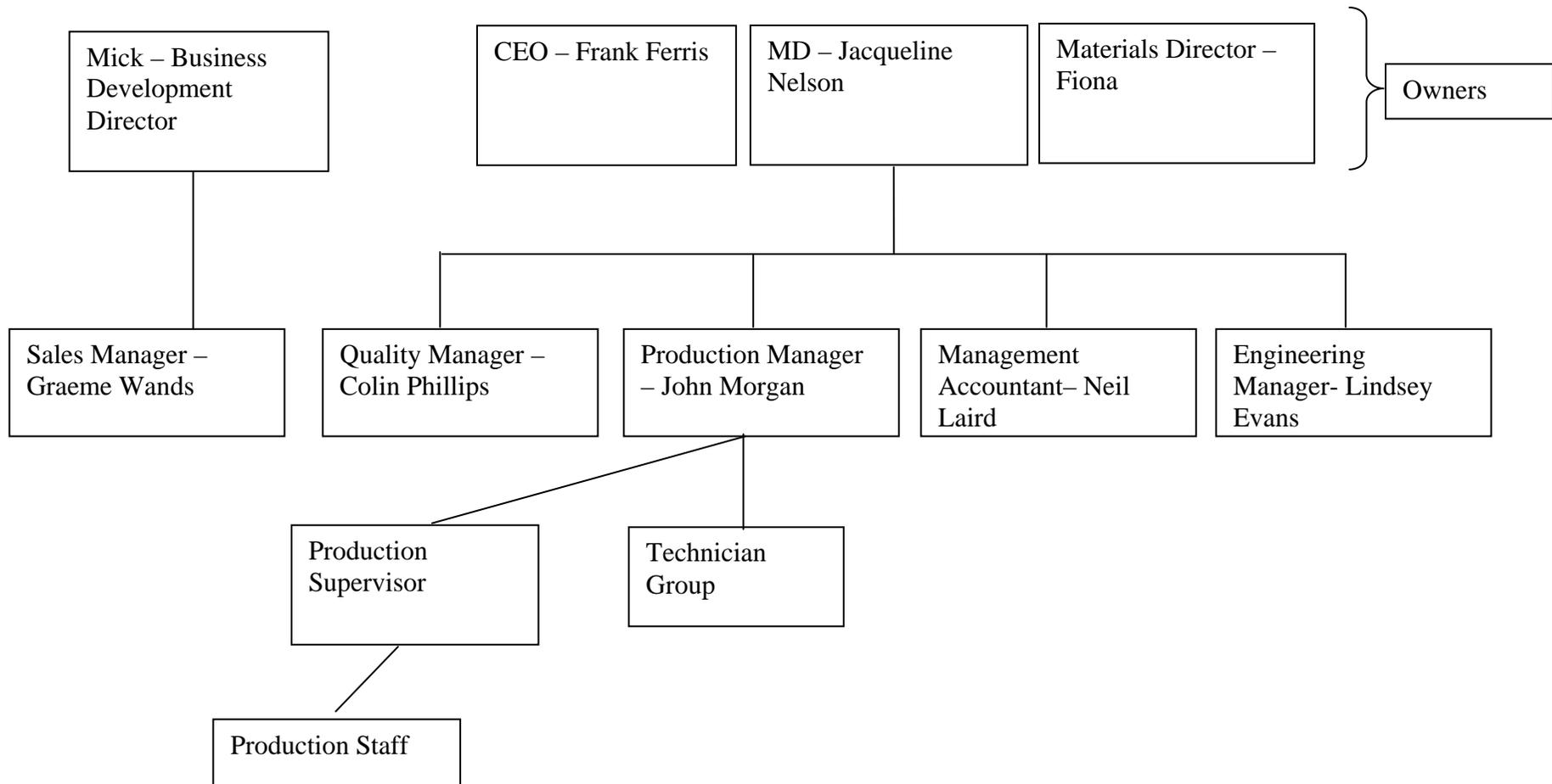
4.0   Strategy Formulation

The market place in which the business competes has changed significantly regarding customer requirements and customer location. The nature of competition all radically changed compared to five years ago. This resulted in TFC having to formulate new strategies to cope with the current competition. More specifically, the evolving direction of the business is aiming to fully exploit the geographical advantages of a Scottish location (i.e. proximity to the customer base) by providing a level of service which cannot be achieved by foreign competition. This is not ruling out work which would involve volume manufacture but this element would be subcontracted at near cost to an Estonian partner organisation – the business growth and margin will be delivered by the *high value add service*. (e.g. there is an ongoing focus on removal of waste activities in order to deliver flexibility and profit).

The longer term strategy of the business is set by the directors with little involvement from the senior management team (e.g. where to invest in strategic partnerships etc.). A more reactive, shorter term strategy development is conducted by the directors through the management of performance of the senior team. This is often done in a subtle/passive manner - by NOT correcting operational decisions/actions taken by the senior management team, the directors are seen as implicitly agreeing to the micro direction for the business. This suits the more proactive senior management team well but is not viewed so positively by the less influential members of the team.

As the business direction has evolved significantly over the years from a very clear high margin, large batch, small number of customers strategy to almost the polar opposite, the value propositions of the business have changed significantly with the full backing of the board of directors. In particular, the board has steered the organisation to develop technical integration, supply chain simplification and customer relationship management capabilities in response to services which the customer base desire. The consensus within the organisation is that they are no longer a straight-forward manufacturing organisation but instead are a *service provider* to an increasingly diverse and demanding customer base.

Flexibility is a key term for the organisation – recognising that what they offer needs to align with the requirements of the customer and if it doesn't, then they need to change or leave the customer! They also recognise the opportunity for profit in flexibility – customers can be willing to pay more for things to be done their way, depending on their individual situations.

In terms of clarity of approach for the future, the organisation does not have a clearly stated summary of the strategy, mission or vision for five or even three years. The next year target is to return a six figure profit. Despite the lack of published strategy, there is a common understanding of the *threats and priorities* for the business over the next year from the senior management team. This cohesiveness of understanding may derive from the fact that they all report to the Managing Director or the commonality of approach may be their collective derived interpretation of the direction required of the business as discussed in their regular interactions and meetings.

Besides, the board of directors has sought to diversify its customer base in response to previous "bad" experiences from depending on one/two major customers. This strategy has seen them grow to approximately 25 different customers. When the organisation took steps to diversify its customer base in order to find customers which were a better fit with its strategic direction, a major part of the customer management role evolved as staying close to the customer in order to identify further business opportunities at sister sites etc. at the earliest available juncture.

Customer relationship management is the key to the business maintaining its position and therefore a huge effort and emphasis is placed on monitoring customer requirements and satisfaction. The quality manager, sales team and even operating staff all have face to face conversations with the customers on a monthly basis and a weekly telephone update at a minimum.

The company reacts to external directives and legislative changes as required- it operates within the letter of the law and has no history of being caught out by such changes. However, when initially questioned about the interaction with the external environment, the senior management team responded in a fairly negative manner i.e. they felt that it was not something they actively pursued. However, through the course of the discussions it emerged that there is a significant effort devoted to keeping track of external developments, albeit often informally. The sales team actively participate in trade forums, conferences, shows etc. to both develop business as well as identify new technologies/potential product development areas.

This data feeds into both the short term and long term decision making of the organisation. Based on observing the general behaviours of customers, the business decided to reduce the level of work for certain customers where margin was being squeezed/ off shoring was likely. And the existence of '*jump on*'s shows a strong sensitivity and monitoring of customer requirements. TFC responds important customers very quickly. For instance, if the customer demands more products with very short notice, TFC changes its schedule and responds to the customer first (as called in TFC 'jump ons'). This even goes as far as the organisation has an individual working part time remotely at a key customer in order to keep a real-time check on the stock levels.

The organisation has little competition within the UK as its five main competitors have all gone bust since 2000 and therefore it does not devote much time to monitoring the local market competition. Also, as its value proposition is entirely different to that of the Indian and Chinese competitors, the organisation does not spend much time analysing their activities.

The business took a conscious decision to not employ, collaborate or set up any operations in China or India despite most of their UK competitors choosing this course of action. They point to the fortunes of those organisations that chose to follow this route and have gone bust either through IP being stolen or customers withdrawing support before set-up costs had been recouped.

The communication of the thought process/ flow of external information for this decision appeared to be inadequate though as the senior management team view the external monitoring efforts made by the directors as limited and as a result, the organisation being risk averse in its decision making process.

To help the achievement of the internal cost reduction targets, the organisation *benchmark*ed its operating practices against similar companies in Scotland. There were conflicting reports of supplier relationships and component cost management – a materials director/purchaser exist but it is unclear if there is a good or bad relationship with the downstream supply chain.

5.0 Strategy Implementation

The management of strategy within TFC is an area which continues to evolve. When the business operated in a high volume market, the approach to strategy was static i.e. year on year there was little variation in the business other than the *demand profile*. However, as the complexity of the business has increased significantly, the

effort and involvement required to deploy the strategy developed by the board has also had to increase.

The board of directors take a passive role in the operational running of the business and it is left to the senior management team (referred to as the gang of four) to deliver the daily performance. The senior management team is very action oriented and they all play an active "hands on" role in the running of the facility, typically holding multiple positions (e.g. finance manager is also in charge of IT, the engineering manager is also in charge of training). The management team also contribute their individual specialities to the *implementation* of "technical" elements of the strategy. The senior management team expressed mixed feelings about the lack of interaction with the board. Some feel that the directors could provide much more guidance with regards to the strategic direction.

Within the normal operating boundaries, the management team are encouraged to take a pro-active approach to all business situations i.e. the senior management team have operational freedom in implementing the strategy except where there is a requirement for staffing up/cash expenditure.

The operational practices and choices made on a short, medium and long term do tend to reflect the direction set by the board. For example, batch size and run frequency has changed over the years in response to the shifting value propositions of the business. Also, the layout of the shop floor and the available technical facilities has been modified to support the strategy set by the board.

However, the senior management team can take a cost/efficiency hit through the activities they choose to engage in order to maintain customer service/relationships as per the strategic direction set by the board. For example, each manager described a "jump on", which is a term understood by all staff. A "jump on" is a top priority (usually last minute) customer request which is dealt with before all scheduled business - it hurts efficiency but maintains/enhances the customer relationship.

For instance, the management of the company's purchasing/invoicing system demonstrates a standard approach to external relationships. TFC actively promotes early customer payment (exploiting strong customer relationships) whilst it will seek to delay payment to suppliers as long as possible in order to maximise cash in the bank.

However, the senior management team have different ideas as to how the strategy should be implemented, particularly with regards to the treatment of staff. They seek to resolve these issues before interacting with staff and they have regularly had showdown meetings behind closed doors - it is clear that there are some useful tensions between them. However, the management team seek to present a "united front" when interacting with the shop floor workers.

Organisation-wise, the senior management team has had to re-allocate staff to different areas in order to provide sufficient personnel to deliver the board's aims. This has been represented in a 90-10 to 50-50 balance in direct to indirect workers within the organisation within the last 10 years. In particular, indirect staff has increased significantly in the supply chain management and new product introduction teams.

On the other hand, for an organisation which for many years operated in a consistent manner, the subject of change management is an area which provoked much comment from both the senior management and staff. It is first noted that the change management message is related directly to cash for business; the link between activities and the bottom line is very clearly stated.

It was commented on that until a couple of years ago, there were many false starts at implementing real change to working practices in the organisation. Two years ago, the business invested in external skills by bringing in two senior managers to shake up the culture and introduce change. Focus from the management team has helped effect a change from cynicism to acceptance – delivering on promises has made a real impact. For shop floor workers, the management practice of enforcing change was not well received by the skilled workers. Shop floor workers value the consistency and fairness of approach – no favourites. However, to make change stick, key positions were re-staffed with people with the right attitude.

Where necessary, the senior management team has sought to bring in external expertise to introduce systems and practices to manage change. For example, the senior management ran a programme with Competitive Scotland at the University of Strathclyde and Ross International to up-skill the senior management team in "Kaizen Blitz" practice. This has allowed the management team to introduce a thorough systematic approach to discrete change projects by reapplication.

On a micro level, the emphasis placed on customer service and meeting the absolute demands of the customer has led to a real *competence* being developed in reacting quickly to changes in customer requirements. Furthermore, to support the customer service drive, a modular, flexible infrastructure is being developed at present (replacing the current rigid layout). This ties in very closely to the direction set by the board and a huge emphasis has been placed on being able to "indoctrinate" this approach into the organisation as a whole.

The company is investing heavily in *training* with a view to increasing the sustainability of change. This training is focussed on the key skills (soldering and crimping) which support the value add propositions demanded by the customers. The company is planning on investing significantly in procedures and standards to augment the current training drive with a view to increasing sustainability of change. Also, the organisation has staffed up to provide the necessary resource to support a high value add New Product Development service which is highly valued by the customers.

The management team seeks involvement in change from those who are directly affected by it. For example, a *communication* forum was established to involve staff in major change decisions in a democratic and inclusive manner. The change management effort is reported to have effected an improvement in morale, particularly those who are deemed to be high performers. Change information is also formally communicated via electronic and traditional (notice board) means.

High value was placed on the supportive measures made by the management team around the time of a change to the payment system – zero percent loans to help staff adjust to the change. This made a very important statement to the teams, which were extremely well received. However, there is a concern amongst staff that the increase in efficiency will lead to redundancies and job losses.

The company has implemented a flexible "win-win" organisational strategy which allows it to micro-manage change at minimum cost (4 day week). In addition, it is used as a recruitment tool to attract new talent into the organisation. The organisation redesigned some roles to fill skills gap – high performing individuals given recognition through such roles. The sample of staff reported an improvement in performance, morale and communication which corroborates the senior management report.

A further measure taken by the organisation to make change sustainable was for the management team to devolve ownership of key measures/projects to shop floor

owners. This had the desired effect of empowering key players on the shop floor and is assessed to have contributed to the success and sustainability of several change initiatives. At a minimum, the senior management team regularly seeks the ideas of the operational staff for both "change project" concepts and to create buy-in to the theme of change.

6.0   Strategy Review & Control

TFC gathers feedback from its customers in order to maintain good relationships with them. For instance, recently (started in 2006) quality management (i.e. the control of defect levels) was out of control which resulted in a negative impact on delivery performance. A chain of command was established which greatly improved the quality performance. In addition, an intensive "reinforcement programme" (consisting of daily meetings to resolve all internal and external defects) was introduced to target this area of poor performance, an activity which has been seen to deliver a significant turn around in results and positive customer *feedback*. This good feedback is used to revise strategy and to sustain this performance so a measurement and reporting system has been handed over to the production team leaders to own and enforce.

Moreover, the company holds regular meetings to discuss threats and priorities for improving the business and strategy is revisited informally as well as in formal management meetings.

7.0   Concluding Remarks

In light of the fortunes of their UK based competitors, TFC must be given credit for remaining in business in recent years during a flurry of outsourcing and off-shoring from their customers. A number of key decisions stand out as contributing to this success.

However, from the lack of a formal strategy through questionable costing and efficiency modelling, the management of performance has to be heavily muscled and there are many questions which cannot be answered because the data simply is not available e.g. if costing/efficiencies are wrong, how do you know which products make money? On-going, this inevitably means that there must be a degree of uncertainty in business decisions. This shortcoming was recognised by the senior management team.

Having the foresight to recognise the changing attitudes and lack of loyalty to the supply chain at key customers was also identified as an important action for the business. The resultant diversification of the customer base has no doubt heavily contributed to the relative stability experienced by the organisation whilst competitors have gone out of business.

One of the most striking features of the interviews was the commonality of understanding between staff and senior management. Rather than setting an explicit *action plan*, the management team has engaged with the staff via a firm but fair general approach which has brought the organisation along with the changes in the recent years. This manifests itself as a competence within the business for change management and rapid customer response – impossible without a good relationship with the staff. Again, frank communication and practical hands-on engagement require a huge amount of management effort and the value of this approach should not be understated.

Many thanks to those who agreed to participate in this research project. Upon ratification of the underlying models from all the source data, the interviews

conducted at TFC Cables will be compared to the results suggested by existing literature and the output will be shared with the organisation.

Finally, should the reader wish to offer corrections or dispute any element of this report, please contact the researcher directly.

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Appendix IIIA. Blairs of Scotland Strategy Process Data Coding

Summary statements – Blairs	Main Themes and Elements	Strategy Process Phase (Total of 65)	Strategic activity (Total of 68)	Strategy Tools/ Methods Used
Before 1997 there was no strategy	N/A	N/A	N/A	
The MD, Owen Quinn was appointed.	Human resources	Implementation	Workforce alignment	
Managing cash flow to keep the business alive. Well –managed financial stakeholder interface to generate loans to support strategy.	Financial management	Implementation	Planning and budgeting	
The management team worked on removing all waste in the system.	Removing waste Operations management	Implementation	Execute strategy	
Focus on sales and marketing.	Sales and marketing	Implementation	Execute strategy	
Developing a vision and mission	Vision and mission	Formulation	Define grand strategy and goals	
Broad business plans based on vision and values developed	Business plans	Formulation	Define short term objectives and action plans	Vision and mission
The MD communicated with employees to make them buy in the new vision and values	Communication with employees	Implementation	Communicate	
The MD removed the blockers to the new vision to keep like minded people in the organisation so as to create a shared vision. The MD categorised the employees into three groups: warriors, terrorists and passivists. He kept the warriors and some of the passivist and removed the terrorists who resisted the changes necessary and did not contribute to the business greatly.	Human resources	Implementation	Workforce alignment	
Analysed the environment to understand what the market was buying, where and where Blairs was standing in the market.	Analysing the environment	Formulation	Analyse external environment	
Market research was conducted by an external market research company. This company carried out a survey to understand the market needs and the perception about Blairs.	Market research	Formulation	Analyse external environment	Market research/ survey
Plot the industry cycle to follow demand because the business is weather dependant.	Analysing the environment	Formulation	Analyse external environment	Industry cycle plots
Sales statistics are discussed in monthly board meetings.	Sales reviews	Review and Control	Gather feedback from strategic actions	

Summary statements – Blairs	Main Themes and Elements	Strategy Process Phase (Total of 65)	Strategic activity (Total of 68)	Strategy Tools/ Methods Used
Developed a new business model – 'Bespoke products business model'	Business model development	Formulation	Define grand strategy and goals	
A new marketing strategy emerged after market research and analysis	Marketing strategy development	Formulation	Define grand strategy and goals	
Environmental analysis is an ongoing activity. The Company purchases published data related to industry regularly.	Analysing the environment	Formulation	Analyse external environment	
Market research led the Company to understand who the customers were (maintenance managers and development managers rather than architects and contractors only).	Understand Customers	Formulation	Analyse external environment	
The engineers are sent to exhibitions and trade shows in Europe to gather market information as well as new product and process information.	Trade shows	Formulation	Analyse external environment	
Interpretation of market data in order to make decisions i.e. purchasing which products etc. effectively and making decisions about investments.	Investment decisions	Formulation	Strategic choice	
Market information reports do not sit in the bottom drawer but rather are used to understand the business strategically.	Evaluate the business	Formulation	Evaluate opportunities	
Communication with the customers, suppliers, stakeholders and banks. Two board members are in the Chamber of Commerce trying to change legislation driving the inefficiency in the industry.	Analysing environment	Formulation	Analyse external environment	
Links with the universities to get help in decision making and strategy evaluation.	Strategy evaluation	Formulation	Evaluate opportunities	
'Capabilities Maturity Model' is used to assess Company capabilities and competencies.	Capabilities and competencies	Formulation	Analyse company core competencies/ capabilities	Capabilities Maturity Model
The Company monitors economic trends and develops economic indicators to direct the business.	Analysing environment	Formulation	Analyse external environment	
The Company predicts that they are immune to excess movement in the economic cycle with their business model in place.	Predicting	Formulation	Evaluate opportunities	
The new business model changed the Company's competitive position from a bargain basis and price driven model into direct competition with foreign competitors.	Business model Achieving results	Implementation	Execute strategy	
The new business model is broke down into objectives (e.g. invest in the	Objective setting	Formulation	Define grand	

Summary statements – Blairs	Main Themes and Elements	Strategy Process Phase (Total of 65)	Strategic activity (Total of 68)	Strategy Tools/ Methods Used
community, high volume production, and commitment to environment etc.)			strategy and goals	
Targets set weekly (e.g. production of doors and windows)	Target setting	Formulation	Define short term objectives and action plans	
'Strands of activity' to achieve business objectives and strategy are clearly expressed and communicated.	Action plans Communication	Implementation	Execute strategy Communicate	
Project by project approach is implemented to achieving goals and objectives. Board members took transparent roles in projects to increase visibility of the projects in the organisation.	Achieving results	Implementation	Execute strategy	Project management
Invested in people	Investing people Human resources	Implementation	Institutionalize strategy	
Benchmarking carried out with local companies in electronic, drinks and call centres sectors in Greenock area on pay conditions and image.	Analysing environment	Formulation	Analyse external environment	Benchmarking
Developed a new strategy 'establishing a world class rewards and benefits package' so as to attract best people into the organisation.	Developing long term strategy Human resources	Formulation	Define grand strategy and goals	
Training programs to top up skills and qualifications through union negotiations. For instance, 'Systematic Inventive Thinking' training organised to foster innovative ideas.	Training Human resources	Implementation	Institutionalize strategy	
Transparent grading system introduced so as to create a trust based and open culture.	Culture	Implementation	Embed strategy	
Roles and responsibilities better defined.	Roles and responsibilities	Implementation	Workforce alignment	
Management team talked to shop floor staff to improve their working conditions.	Communication	Implementation	Communicate	
Recruited new people who could deliver the shared values and the new business plan.	Human resources	Implementation	Workforce alignment	
Blairs went on board a major investment plan into increasing the existing capacity, improving operational processes before purchasing new machines.	Investment Capacity planning	Implementation	Execute strategy	
New products which will differentiate Blairs from its competitors introduced.	New products	Implementation	Execute strategy	
Redeployed people into engineering design, product development, prototyping, testing pilot production and manufacturing.	Human resources	Implementation	Allocate resources	
Improved efficiency of production processes rather than investing in new	efficiency	Implementation	Execute strategy	Six Box

Summary statements – Blairs	Main Themes and Elements	Strategy Process Phase (Total of 65)	Strategic activity (Total of 68)	Strategy Tools/ Methods Used
machines. 'Six Box Approach' by John Harvey Jones used to get rhythm into the factory.				Approach
This approach led the Company to develop 'Blairs Operations Model 2000'	Business model	Implementation	Execute strategy	
An investment strategy emerged to 'remove the black teeth' from the shop floor. Benchmarking is done as well as talking to suppliers in trade fairs so as to decide high spec new machines.	Investment efficiency	Implementation	Execute strategy	Benchmarking
Appointed a new Production Director to give more time to the Engineering Director so he could spend more time on putting new products and processes into the factory.	Human resources	Implementation	Allocate resources	
A new KTP (Knowledge Transfer Partnership) associate is appointed to work on improving capacity and carrying out value stream analysis.	Human resources	Implementation	Allocate resources	
Following a feasibility analysis QRM (Quick Response Manufacturing) introduced. This new operating system was more suitable to cope with wide range of products and demand variations.	Operations management	Implementation	Execute strategy	
A new production planning and control system introduced.	Operations management	Implementation	Execute strategy	
KPIs are put in place through discussions and persuasion.	KPI	Implementation	Institutionalize strategy	KPI
Clear responsibilities have been allocated to goals, objectives and KPIs.	Roles and responsibilities	Implementation	Institutionalize strategy Embed strategy	KPI
Maintaining good ongoing relations with lenders and banks	Communication	Implementation	Communicate	
Benchmarking carried out to choose an advanced MIS system to replace spreadsheets used for information gathering and sharing.	investment	Implementation	Execute strategy	Benchmarking
Improved budgeting process i.e. reducing month end accounts production from 10 days to 5 days.	budgeting	Implementation	Planning and budgeting	
Operational processes made leaner through reducing hierarchy.	Operations management	Implementation	Execute strategy	
'The answer is yes now what is the question?' culture is communicated in the organisation. There was no resistance to change because all the blockers were removed at the beginning.	Culture Change management	Implementation	Manage strategic change	
The strategy is directing everybody's daily job.	Institutionalizing strategy	Implementation	Institutionalize strategy	

Summary statements – Blairs	Main Themes and Elements	Strategy Process Phase (Total of 65)	Strategic activity (Total of 68)	Strategy Tools/ Methods Used
			Embed strategy	
Peer pressure in the management team is balancing budgets and helping meet targets.	Budgeting	Implementation	Planning and budgeting	
The management team has been evaluating the business model periodically. For example, a company conference was held in March 2006 to communicate and confirm the strategic direction.	Review and confirm strategy	Review and control	Revise strategy	
In this company conference, future state of the factory was discussed. SWOT and pricing analyses were carried out.	Revise strategy	Review and control	Revise strategy	SWOT and pricing analyses
Market research, competitive analysis, and economic trend data are taken as inputs to strategic reviews.	Gather feedback from market data	Review and control	Gather feedback from strategic actions	
Sales and marketing information as well as product variant data are reviewed on a monthly basis to understand if the company practices are in line with the strategy or not.	Gather feedback from sales and marketing	Review and control	Gather feedback from strategic actions	
Feedback from market data, product data, shop floor people shape the emergent strategy to behave proactive.	Emergent strategy Proactive Modify goals	Review and control	Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required	
The Company reviews its performance through monthly reports coming from Engineering, R&D, Planning and Logistics, Commercial Services, Marketing, Business Development, Production, Finance and IT.	Gather feedback from departments	Review and control	Gather feedback from strategic actions	
Monitoring the current activities in review meetings and making decisions on strategies i.e. QRM emerged from review meetings	Emergent strategy Modify goals	Review and control	Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required	
Management team reviews and interprets various inputs in afternoon board meetings to be able to react quickly.	Gather feedback from strategic actions	Review and control	Gather feedback from strategic actions	

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Summary statements – Blairs	Main Themes and Elements	Strategy Process Phase (Total of 65)	Strategic activity (Total of 68)	Strategy Tools/ Methods Used
The company philosophy as part of culture is 'to stay flexible but stop yourself being diverted once you have been decisive'.	culture	Implementation	Manage strategic change	

Notes (# of phases and percentages of occurrence):-

21 (32%)	Formulation	35 (54%)	Implementation	9 (14%)	Review & Control

Appendix IIIB. Cemtron Strategy Process Data Coding

Summary statements - Cemtron	Main Themes and Elements	Strategy Process Phase (Total of 44)	Strategic activity (Total of 47)	Strategy Tools/ Methods Used
Developing and implementing an exit plan to recover from the loss in Australia, the previous owner.	Exit plan Financial management	Implementation	Planning and budgeting Execute strategy	
Management style is changing from 'umbrella style / top-down' to a more people involvement and development focussed style which is based on mutual trust.	Management style	Implementation	Managing strategic change	
Managing cultural and organisational changes along with the new balanced management style. It is difficult to change managers' attitude from being told what to do and actually making decisions themselves.	Culture	Implementation	Managing strategic change	
The MD delegated his responsibilities to his management team so he can go out to search for opportunities more often.	Delegation Opportunity seeking	Implementation Formulation	Workforce alignment Evaluate opportunities	
Investors and the MD looks into opportunities	Opportunity seeking	Formulation	Evaluate opportunities	
Investors and the MD targets to move the value of the business from £16M now to £61M.	Target setting	Formulation	Define short term objectives and action plans	
Developing strategy on how to pursue opportunities and to understand the core elements of the future business as well as how to get there.	Opportunity seeking Strategy development	Formulation	Strategic choice Define grand strategy and goals	
Cemtron's mission statement is:- *Cemtron Limited aims to provide competitive, customer driven, total quality solutions to the electronics sub-contract manufacturing sector.*	Mission	Formulation	Define grand strategy and goals	Mission statement
25 years of experience in industry as well as *what if scenarios* and *risk analysis* are the management tools that they use to analyse opportunities	Opportunities Strategy tools Past experience	Formulation	Evaluate opportunities	What-if scenarios Risk analysis
Communication with customers and suppliers affects business positively	Communication with	Formulation	Analyse external	

Summary statements - Cemtron	Main Themes and Elements	Strategy Process Phase (Total of 44)	Strategic activity (Total of 47)	Strategy Tools/ Methods Used
to achieve long term customer satisfaction.	customers and suppliers		environment	
Customer surveys are carried out to find out customer feedback on the Company's service level.	Customer feedback	Review and Control	Gather feedback from strategic actions	Customer survey
The MD and the Financial Controller looks at sales, revenues, the capacity and profit before tax at the beginning of a year to draw a plan.	Financial planning	Implementation	Planning and budgeting	
The management team does 3-month forecasting because the industry is fast moving.	Forecasting	Formulation	Analyse external environment	Forecasting (roll-on)
The management team plans human resources regarding overtimes and temporary employees for busy periods according to forecasts and scenarios.	Human resources planning	Implementation	Workforce alignment	Forecasting Scenario planning
Maintaining decent payment terms for suppliers and customers is taking a lot of management time in order to manage cash flow.	Financial management	Implementation	Planning and budgeting	
Invoice discounting with the bank is very costly but served the purpose in terms of easing the cash flow.	Financial management	Implementation	Planning and budgeting	
They figure out how much they earn from each customer through invoicing and a basic pricing model to quote customers.	Financial management	Implementation	Planning and budgeting	Pricing modelling
Production and shop floor activities (stock targets) as well as sales, forecasts and cash flow issues are discussed and the progress is monitored in daily 9 am management update meetings. These meetings are part of Open Management strategy in the Company.	Update meetings	Review and Control	Gather feedback from strategic actions	Forecasting Budgets
The management is working on a communication strategy. Currently, they communicate with shop floor staff through briefings but not on a regular basis. They involve 10 employees from manufacturing to 9 am breakfast meetings and in other pre-shift meetings to discuss latest issues with the MD.	Communication with staff	Implementation	Communicate	
The MD is interested in looking at financial matrix, ROI, customer	KPI	Implementation	Institutionalize strategy	KPI

Summary statements - Cemtron	Main Themes and Elements	Strategy Process Phase (Total of 44)	Strategic activity (Total of 47)	Strategy Tools/ Methods Used
satisfaction and change management teams as being important KPIs.				
KPIs are checked on a monthly basis whether the business is making money, efficient and solvent.	Checking KPIs	Review and Control	Gather feedback from strategic actions	
Cemtron opens its warehouse electronically and physically to the customers as well as implementing 'open book pricing' to create an open culture and creating trust.	Culture Customers	Implementation	Manage strategic change	
Cemtron is having cost meetings with the customers regularly to share the cost ownership so as to share the savings jointly with the customer.	Culture Customers	Implementation	Manage strategic change	
Industry and the sector are monitored globally. It is a very customer driven, dominated by Far East sector. This makes it difficult to implement lean philosophies.	Environmental scanning	Formulation	Analyse external environment	
Quality improvement programmes i.e. 5S is implemented.	Quality programmes	Implementation	Execute strategy	5S (sort, set-in-order, shine, standardise, sustain)
The Management Team plans to implement an effective communication strategy within the organisation.	Communication strategy development	Formulation	Define grand strategy and goals	
They focus on financial targets, growth and personal development plans for managers.	Targets Personal development	Formulation	Define short term objectives and action plans	
In order to make the broader strategy, they focus on personal development. They use personal confidential feedback thorough questionnaires.	Feedback from staff Personal development	Review and Control	Gather feedback from strategic actions	Personnel questionnaires
KPIs and company targets are communicated on notice boards on the shop floor.	Communication	Implementation	Communicate	KPI

Summary statements - Cemtron	Main Themes and Elements	Strategy Process Phase (Total of 44)	Strategic activity (Total of 47)	Strategy Tools/ Methods Used
Organisational performance is measured based on balance sheet and customer satisfaction surveys.	Performance measurement	Implementation	Execute strategy	Customer satisfaction surveys Balance sheet
Departmental performance is measured based on customer perception, informal feedback from supply chain, financial terms, and balanced scorecard.	Performance measurement	Implementation	Execute strategy	Balanced scorecard Financial terms
Individual performance appraisals of the staff are not carried out because only 9% of overall cost is labour costs. The focus is on material costs.	Financial management	Implementation	Execute strategy	
'Cause Analysis' is carried out by the Operations Manager in order to understand manufacturing problems and root causes.	Operations management	Implementation	Execute strategy	Cause Analysis
There are change management teams in the organisation. This is done through 'Change Leadership Program'. Formal cross-functional teams are set up as project teams. This is not their primary job but they meet and come up with cost saving proposals.	Change management Human resources	Implementation	Embed strategy	
HR manager works on reducing resistance to change among shop floor staff. _Why fix it if it is not broke!_ She deems that communication is the key. Therefore, managers will go through a training program on how to communicate goals and objectives to staff.	Communication Training Culture	Implementation	Communicate Embed strategy	
Management team talks to staff informally to communicate changes. However, they work on a communication process about what to communicate with whom and by which channel, for example, some people prefer visual communication via charts etc, and others prefer team communication.	Communication	Implementation	Communicate	
The Company react quickly changes in the business environment. They discuss and review reports in daily morning meetings.	Review	Review and Control	Revise strategy	

Summary statements - Cemtron	Main Themes and Elements	Strategy Process Phase (Total of 44)	Strategic activity (Total of 47)	Strategy Tools/ Methods Used
There are not much structured ways of doing things in Cemtron. There are guidelines but mostly informal. The company does not want to block people's imagination by limiting them with too many structures.	Structures	Implementation	Execute strategy	
The Company developed unique capabilities in its sector. They can build volume in the UK and in Far East, can achieve final customisation, and ship it out, providing warehousing, repairing services, and offering an open and a friendly relationship with customers.	Capabilities	Formulation	Analyse company core competencies and capabilities	
To achieve the strategic leap, they will move up the managers to the next level via succession plans.	Succession plans Human resources	Implementation	Embed strategy	Succession planning
The HR is working on formulating a *training strategy* for the shop floor especially cross products	Developing a training strategy	Formulation	Define short term objectives and action plans	
A series of courses in managing results, leadership, customer retention and quality, communication, time management, goal setting, business context and active listening and so on is planned by the HR department.	Training plans	Implementation	Execute strategy	
Finance department meets daily to review business trends and results. Besides the Company has a quarterly review. Management team holds daily meetings, 9 am meetings, to review business results. The purpose of these meetings is sharing information progress in order to better services by acting as the customer's factory. Operations Manager, Quality Manager, Finance Manager, the MD and Business Development Manager attend these morning meetings.	Review	Review and Control	Revise strategy Appraise test and reconcile strategy with departmental plans and needs and modify goals if required	

Notes (# of phases and percentages of occurrence):-

13 (29%)	Formulation	25 (57%)	Implementation	6 (14%)	Review & Control

Appendix IIIC. Houston Co-pack Strategy Process Data Coding

Summary statements - Houston	Main Themes and Elements	Strategy Process Phase (Total of 30)	Strategic activity (Total of 32)	Strategy Tools/ Methods Used
Before 2001 there was no strategy	N/A	N/A	N/A	
A new Operations Director is appointed	Human resources	Implementation	Workforce alignment	
Carried out SWOT analysis	SWOT	Formulation	Analyse external environment Analyse company core competencies and capabilities	SWOT
Developed a focussed mission and a strategic plan	Mission Strategic plan	Formulation	Define grand strategy and goals	
Company vision: Houston Co-pack wants to be the leading provider of spirit packaging services to the whisky industry and to be good value for money in providing this service. Their aim is to take the hassle away from big distillers.	Vision	Formulation	Define grand strategy and goals	Vision/mission
The vision has been communicated in the organisation through briefing people and training sessions. This message was repeated *'saying it once or twice is not enough you have to say it all the time'*.	Communicate vision	Implementation	Communicate	Vision/mission
They assessed customer needs, and then talked to the customers and competitors and restructured their service offering.	Communicate with customers and competitors	Formulation / Implementation	Analyse external environment Manage strategic change	
They measured each job's profitability and realised that certain jobs were no longer economical to do.	Financial management	Implementation	Planning and budgeting	job costing and profitability analysis
Focus on the key players as customers in the industry	Customers	Formulation	Strategic choice	
Have a constant dialogue with the customers in order to establish an on going relationship.	Communicate with customers	Formulation	Analyse external environment	
The Company speaks to customers through formal and informal channels in order to anticipate trends and to cross check what is happening in the business.	Communicate with customers Monitor trends	Formulation	Analyse external environment	

Summary statements - Houston	Main Themes and Elements	Strategy Process Phase (Total of 30)	Strategic activity (Total of 32)	Strategy Tools/ Methods Used
Monitors its competitors especially 'cowboy' companies that are in the business to make a 'quick buck'.	Monitors competitors	Formulation	Analyse external environment	
Improved productivity to be able to offer lower prices	Operations management Productivity improvement	Implementation	Execute strategy	
Employed 15 more permanent employees	Recruitment	Implementation	Allocate resources	
Appointed the warehouse manager to be the new operations manager. In addition to this bringing in a 'fresh pair of eyes' as a KTP (Knowledge Transfer Partnership) associate from the University of Strathclyde has been important. '*Getting the right people in the right places*' has been important for Houston Co-pack.	Human resources Reorganisation	Implementation	Workforce alignment Manage strategic change	
The new management has asked the employees what is not right and how these problems can be fixed. This is the core of the strategy process '*developing the person in the role*'.	Communicate with employees	Implementation	Communicate	
Training, investing and communicating with the team leaders to buy in changes and to increase their commitment to new strategies. Training needs analysis is carried out to plan training programmes for especially permanent staff.	Culture Training	Implementation	Embed change	
The team leaders are now more confident that they have the backing of the management (discipline, organising shifts, getting more output etc). Team leaders today are better trained and more able to contribute to the business. They feel like they are part of the organisation and part of the team.	Culture	Implementation	Embed change	
Environmental scanning is done informally. Word of mouth from employees and membership to professional bodies is used methods to collect data about the industry.	Environmental scanning	Formulation	Analyse external environment	
Making a strategic choice and focussing on bottling which is a more complicated and profitable sector and is difficult to enter by the cowboy companies.	Strategic choice	Formulation	Strategic choice	
Investing in developing bottling business	Investment	Implementation	Allocate resources	
SOPs and KPIs are put in place to monitor whether the targets were being met.	SOP KPI	Implementation	Institutionalize strategy	

Summary statements - Houston	Main Themes and Elements	Strategy Process Phase (Total of 30)	Strategic activity (Total of 32)	Strategy Tools/ Methods Used
Empowering people so as to sustain continuous improvement.	Human resources Culture	Implementation	Embed change	
New more professional senior management team is formed.	Reorganisation	Implementation	Manage strategic change	
Organisational structure changed. Roles and responsibilities are defined clearly.	Reorganisation	Implementation	Manage strategic change	
Invested in IT systems to link all departments	Investment	Implementation	Allocate resources	
Communicating with employees thorough briefings and informal chats so as to let them know what is happening in the company and to make them more committed to strategic change	Communicate with employees Culture	Implementation	Communicate	
Business strategy is revisited each year.	Review strategy	Review and Control	Revise strategy	
An action plan defining company wide, departmental and personal goals is prepared following strategy review	Action plans	Formulation	Define short tem objectives and action plans	
Other strategy meetings are held to check whether the business is on track.	Review strategy	Review and Control	Gather feedback from strategic actions	

Notes (# of phases and percentages of occurrence):-

| 11 (36%) | Formulation | 17 (57%) | Implementation | 2 (7%) | Review & Control |

Appendix IIID. TFC Strategy Process Data Coding

Summary statements - TFC	Main Themes and Elements	Strategy Process Phase (Total of 46)	Strategic activity (Total of 58)	Strategy Tools/ Methods Used
The management of strategy within TFC is an area which continues to evolve. Approximately 5 years ago TFC changed its strategy. When the business operated in a high volume market, the approach to strategy was static i.e. year on year there was little variation in the business other than the *demand profile*. However, as the complexity of the business has increased significantly, the effort and involvement required to deploy the strategy developed by the board has also had to increase. Thus, 2000-2001 is the period when TFC started to develop and implement new strategies to meet today's market conditions and to cope with the competition.	Developing strategies Changing environmental conditions	Formulation Implementation	Analyse external environment Define grand strategy and goals Manage strategic change	
Long term strategy is set by the Directors i.e. where to invest in strategic partnerships. A more reactive, short term strategy setting is conducted by senior management team with the directors implicitly agreeing. Company strategy was being a very clear high margin, large batch, small number of customers strategy to almost the polar opposite, the value propositions of the business have changed significantly with the full endorsement of the board of directors. The new strategy is that they are no longer a straight-forward manufacturing organisation but instead are a *service provider* to an increasingly diverse and demanding customer base.	Developing strategies	Formulation	Define grand strategy and goals Define short term objectives and action plans	
TFC has seen an opportunity in being flexible to meet customer requirements. They also recognise the opportunity for profit in flexibility – customers can be willing to pay more for things to be done their way, depending on their individual situations.	Opportunities Customers	Formulation	Evaluate opportunities Analyse external environment	
TFC made a decision to outsource high volume manufacturing and partner up with an Estonian manufacturer so as to shift mass manufacturing there while keeping high value add services in the UK through benefiting the location advantages of Scotland.	Strategic partnership	Formulation	Define grand strategy and goals	
No written down, published or clear long term (3-5 years) strategy and vision exist in the organisation	Written down strategies	N/A	N/A	
The next year target is to return a six figure profit.	Target setting	Formulation	Define short term objectives and action plans	
Despite this lack of published strategy, there is a common understanding of the *threats and priorities* for the business over the next year among the senior	Threats priorities Review	Formulation	Analyse external environment	Threats and priorities

Summary statements - TFC	Main Themes and Elements	Strategy Process Phase (Total of 46)	Strategic activity (Total of 58)	Strategy Tools/ Methods Used
management team. The strategy required of the business is discussed in their regular interactions and meetings without being published on a document.		Implementation	Institutionalizing strategy	analysis
		Review and Control	Revise strategy	
TFC diversified its customer base to approximately 25 different customers in order to reduce dependency to one customer.	Diversification of customers	Implementation	Execute strategy	
The senior management team plans to continue to address the changing nature of the market. There is a significant effort devoted by senior management to keeping track of external environmental developments, although often informally. They are aware of the fact that they need to work harder for less return in today's market place.	Market	Formulation	Analyse external environment	
TFC works on over the coming years, finding further customers and doing everything possible to develop them whilst improving internal efficiency.	New customers Internal efficiency	Implementation	Execute strategy	
A huge effort and emphasis is placed on monitoring customer requirements and satisfaction. The quality manager, sales team and even operating staff all have face to face conversations with the customers on a monthly basis and a weekly telephone update at a minimum. This data feeds into both the short term and long term decision making of the organisation.	Monitoring customers Feedback	Implementation	Execute strategy Gather feedback from strategic actions	
		Review and Control		
TFC responds important customers very quickly. This even goes as far as the organisation has an individual working part time remotely at a key customer in order to keep a real-time check on the stock levels.	Customers	Implementation	Allocate resources	
The senior management team can take a cost/efficiency hit through the activities they choose to engage in order to maintain customer service/relationships as per the strategic direction set by the board. For example, each manager described a "jump on", which is a term understood by all staff. A "jump on" is a top priority (usually last minute) customer request which is dealt with before all scheduled business - it hurts efficiency but maintains/enhances the customer relationship.	Customers Common language	Implementation	Institutionalize strategy	
When the organisation took steps to diversify its customer base in order to find customers which were a better fit with its strategic direction, a major part of the customer management role evolved as staying close to the customer in order to	Customers Opportunity seeking	Formulation	Analyse external environment Evaluate	

Summary statements - TFC	Main Themes and Elements	Strategy Process Phase (Total of 46)	Strategic activity (Total of 58)	Strategy Tools/ Methods Used
identify further business *opportunities* at sister sites etc. at the earliest available juncture.			opportunities	
Management team devotes limited time to monitoring the local and global market competition which makes the organisation being risk averse in its decision making process.	Monitoring global market	Formulation	Analyse external environment	
The business took a conscious decision to not employ, collaborate or set up any operations in China or India despite most of their UK competitors choosing this course of action. They point to the fortunes of those organisations that chose to follow this route and have gone bust either through IP being stolen or customers withdrawing support before set-up costs had been recouped.	Decision making Strategic choice	Formulation	Strategic choice	
The company reacts to external directives and legislative changes as required- it operates within the letter of the law and has no history of being caught out by such changes.	Macro environment	Formulation	Analyse external environment	
The sales team actively participate in trade forums, conferences, shows etc. to both develop business as well as identify new technologies/potential product development areas.	Trade shows	Formulation	Analyse external environment	
To help the achievement of the internal cost reduction targets, the organisation *benchmark*ed its operating practices against similar companies in Scotland.	Meeting targets	Implementation	Execute strategy	Benchmarking
The board of directors take a passive role in the operational running of the business and it is left to the senior management team (referred to as the gang of four) to deliver the daily performance.	Operations management	Implementation	Execute strategy	
The senior management team is very action oriented and they all play an active "hands on" role in the running of the facility, typically holding multiple positions (e.g. finance manager is also in charge of IT, the engineering manager is also in charge of training). The management team also contribute their individual specialities to the *implementation* of "technical" elements of the strategy.	Management style Roles responsibilities	Implementation	Execute strategy	
Within the normal operating boundaries, the management team are encouraged to take a pro-active approach to all business situations i.e. the senior management team have operational freedom in implementing the strategy except where there is a requirement for staffing up/cash expenditure.	Roles responsibilities HR/ Financial management	Implementation	Execute strategy Allocate resources	

Summary statements - TFC	Main Themes and Elements	Strategy Process Phase (Total of 46)	Strategic activity (Total of 58)	Strategy Tools/ Methods Used
The operational practices and choices made on a short, medium and long term do tend to reflect the direction set by the board. For example, batch size and run frequency has changed over the years in response to the shifting value propositions of the business.	Strategic choices Review	Formulation Review and control	Strategic choice Revising strategy	
The layout of the shop floor and the available technical facilities has been modified to support the strategy set by the board.	Layout/ Operations management	Implementation	Execute strategy	
TFC manages external relationships with customers and suppliers regarding payments. TFC actively promotes early customer payment (exploiting strong customer relationships) whilst it will seek to delay payment to suppliers as long as possible in order to maximise cash in the bank.	Financial management Customers	Implementation	Execute strategy Planning and budgeting	
The management team seek to present a "united front" when interacting with the shop floor workers regarding strategy implementation.	Employees relations	Implementation	Institutionalize strategy	
Organisation-wise, the senior management team has had to re-allocate staff to different areas in order to provide sufficient personnel to deliver the board's aims. This has been represented in a 90-10 to 50-50 balance in direct to indirect workers within the organisation within the last 10 years. In particular, indirect staff has increased significantly in the supply chain management and new product introduction teams.	HR planning Roles and responsibilities	Implementation	Workforce alignment	
The change management message is related directly to cash for business; the link between activities and the bottom line is very clearly stated.	Financial management Change	Implementation	Execute strategy Manage strategic change	
Rather than setting an explicit *action plan*, the management team has engaged with the staff via a firm but fair general approach which has brought the organisation along with the changes in the recent years. This manifests itself as a competence within the business for change management and rapid customer response – impossible without a good relationship with the staff.	Change	Implementation	Manage strategic change	
Two years ago, the business invested in external skills by bringing in two senior managers to shake up the culture and introduce change.	Change Culture	Implementation	Manage strategic change Allocate resources	

Summary statements - TFC	Main Themes and Elements	Strategy Process Phase (Total of 46)	Strategic activity (Total of 58)	Strategy Tools/ Methods Used
Where necessary, the senior management team has sought to bring in external expertise to introduce systems and practices to manage change. For example, the senior management ran a programme with Competitive Scotland at the University of Strathclyde and Ross International to up-skill the senior management team in "Kaizen Blitz" practice. This has allowed the management team to introduce a thorough systematic approach to discrete change projects by reapplication.	Change External agencies	Implementation	Manage strategic change Allocate resources	
Focus from the management team has helped affect a change from cynicism to acceptance – delivering on promises has made a real impact.	Culture Change	Implementation	Manage strategic change	
To make change stick, key positions were re-staffed with people with the right attitude.	Change HR	Implementation	Manage strategic change Workforce alignment	
On a micro level, the emphasis placed on customer service and meeting the absolute demands of the customer has led to a real *competence* being developed in reacting quickly to changes in customer requirements. Furthermore, to support the customer service drive, a modular, flexible infrastructure is being developed at present (replacing the current rigid layout).	Competence development	Implementation	Execute strategy	
The company is investing heavily in *training* with a view to increasing the sustainability of change.	Investing Training	Implementation	Allocate resources Manage strategic change	
TFC has staffed up to provide the necessary resource to support a high value add New Product Development service which is highly valued by the customers.	HR	Implementation	Allocate resources	
A *communication* forum was established to involve staff in major change decisions in a democratic and inclusive manner. The change management effort is reported to have affected an improvement in morale, particularly those who are deemed to be high performers. Change information is also formally communicated via electronic and traditional (notice board) means.	Culture Communication	Implementation	Communicate	
The organisation redesigned some roles to fill skills gap – high performing individuals given recognition through such roles. The management team reward high performers with both promotion opportunities as well as financial compensation.	Re organisation Rewards/ recognition	Implementation	Workforce alignment Embed strategy	

Summary statements - TFC	Main Themes and Elements	Strategy Process Phase (Total of 46)	Strategic activity (Total of 58)	Strategy Tools/ Methods Used
A further measure taken by the organisation to make change sustainable was for the management team to devolve ownership of key measures/projects to shop floor owners. This had the desired effect of empowering key players on the shop floor and is assessed to have contributed to the success and sustainability of several change initiatives.	Empowering people	Implementation	Embed strategy	
At a minimum, the senior management team regularly seeks the ideas of the operational staff for both "change project" concepts and to create buy-in to the theme of change. The senior management team is regularly seen on the shop floor "getting their hands dirty" implementing change initiatives.	Buy in from employees Commitment to change	Implementation	Manage strategic change	
TFC gathers feedback from its customers in order to maintain good relationships with them.	Feedback	Review and control	Gather feedback from strategic actions	
TFC holds regular meetings to discuss threats and priorities for improving the business and strategy is revisited informally as well as in formal management meetings.	Review	Review and control	Revise strategy	

Notes (# of phases and percentages of occurrence):-

| 13 (28%) | Formulation | 28 (61%) | Implementation | 5 (11%) | Review & Control |

Total of **205** codes for 'strategic activities' generated across four SMEs.

Appendix IV. Number of strategic activities and percentage of occurrences in four case study companies

Item number	Item	BLAIRS (total of 68 activities)		CEMTRON (total of 47 activities)		HOUSTON (total of 32 activities)		TFC (total of 58 activities)	
		# of activities	% of occurrence	# of activities	% of occurrence	# of activities	% of occurrence	# of activities	% of occurrence
	Formulation Phase								
SA1	Analyse the external environment	9	13.2	3	6.4	6	18.8	8	13.8
SA2	Analyse company core competencies, capabilities	1	1.5	1	2.1	1	3.1	0	0.0
SA3	Evaluate opportunities	3	4.4	3	6.4	0	0.0	2	3.4
SA4	Strategic choice	1	1.5	1	2.1	2	6.3	2	3.4
SA5	Define grand strategy and goals	5	7.4	3	6.4	2	6.3	3	5.2
SA6	Define short-term objectives and action plans	2	2.9	3	6.4	1	3.1	2	3.4
	Implementation Phase								
SA7	Execute strategy	14	20.6	8	17.0	1	3.1	11	19.0
SA8	Allocate resources	3	4.4	0	0.0	3	9.4	6	10.3
SA9	Planning and budgeting	3	4.4	5	10.6	1	3.1	1	1.7
SA10	Workforce alignment	4	5.9	2	4.3	2	6.3	3	5.2
SA11	Institutionalising strategy	5	7.4	1	2.1	1	3.1	3	5.2
SA12	Communicate strategy	4	5.9	4	8.5	3	9.4	1	1.7
SA13	Embed strategy	3	4.4	3	6.4	3	9.4	2	3.4
SA14	Manage strategic change	2	2.9	4	8.5	4	12.5	9	15.5
	Review & Control Phase								
SA15	Gather feedback from strategic activities	5	7.4	4	8.5	1	3.1	2	3.4
SA16	Revise strategy	2	2.9	1	2.1	1	3.1	3	5.2
SA17	Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required	2	2.9	1	2.1	0	0.0	0	0.0

Appendix V - Response Form for Conceptually Ordered Map Verification

Company name: *...type here...*
Your name: *...type here...*
Your involvement with *...type here...*
the company:

Your reactions and feedback to the materials you have read can be of much help in validating them. You can provide the researcher with more confidence in her conclusions, and can show her where her explanations are partial or mistaken, and need to be revised for more accuracy.

Remember! I am asking you to think back to the way things were at the time of the interviews on March 2006.

1. Looking at the conceptually ordered map (see attached):

> **a.** Generally speaking, how accurate do you consider the map to be, as of March 2006? Please say a little about why you think so.

...please type your comments here. The text box will expand to accommodate your text...

> **b.** Are there any important elements missing among actions or strategic initiatives? List them here, and/or draw them in on the map.

...please type your comments here. The text box will expand to accommodate your text...

> **c.** Looking at the arrows between boxes, do you think they are accurate? Are they faithful to the events at the company? Please explain your revisions in arrows briefly.

...please type your comments here. The text box will expand to accommodate your text...

> **d.** Is my discussion of outcomes at the end of the map accurate from your point of view? What revisions would you suggest to make it more accurate?

...please type your comments here. The text box will expand to accommodate your text...

> **e.** Any other concluding comments and suggestions:

...please type your comments here. The text box will expand to accommodate your text...

2. Looking at the researcher's conclusions (see attached):
(Feel free to jot notes directly on the document itself, if that will be easy.)

> **a.** What errors of facts do you see, as of March 2006?

...please type your comments here. The text box will expand to accommodate your text...

> **b.** What differences in interpretation do you have?

...please type your comments here. The text box will expand to accommodate your text...

3. Looking at the researcher's answers (in blue) to the research questions below, could you validate/ amend them:

She predicts answers for the listed RQs below in the context of Blairs.

RQ1. What are the distinctive features of the strategy process in the context of SMEs?

...please type your comments here. The text box will expand to accommodate your text...

RQ2. What are the key strategic actions that are carried out by SMEs in the strategy process?

...please type your comments here. The text box will expand to accommodate your text...

RQ3. What strategy tools are being employed in SMEs?

...please type your comments here. The text box will expand to accommodate your text...

RQ4. How do strategic initiatives link to implementation plans in SMEs?

...please type your comments here. The text box will expand to accommodate your text...

Broad RQ: How does the strategy process work in SMEs?

...please type your comments here. The text box will expand to accommodate your text...

MANY THANKS FOR YOUR HELP & TIME. Please return this form to Aylin Ates.

Appendix VA - Response Form for Conceptually Ordered Map Verification (Blairs of Scotland)

Company name: *Blairs of Scotland, Greenock, Scotland*
Your name: *Trevor Turner*
Your involvement with the company:

KTP principal investigator and industrial supervisor for a period of 3 years to end of 2006

Your reactions and feedback to the materials you have read can be of much help in validating them. You can provide the researcher with more confidence in her conclusions, and can show her where her explanations are partial or mistaken, and need to be revised for more accuracy.

Remember! I am asking you to think back to the way things were at the time of the interviews on March 2006.

1. Looking at the conceptually ordered map (see attached):
  a. Generally speaking, how accurate do you consider the map to be, as of March 2006? Please say a little about why you think so.

In general the map reflects the way things happened in Blairs and the strategic decisions and actions taken. As usual, some of the strategy emerged as a consequence of actions taken. In particular the introduction of new product lines was an attempt to replace more resource intensive traditional product lines but the traditional product demand increased as fashion for traditional windows changed. This led to the need to keep a wider range of products than intended which led to developing an operating system to accommodate a high variety/high volume demand profile. How do you represent external influences like this on your map? It is not a concept but influenced the strategic direction It shows how Blairs remained flexible to external influences even though the prevailing business objective was to rationalize to narrow the product ranges .

  b. Are there any important elements missing among actions or strategic initiatives? List them here, and/or draw them in on the map.

One action that was taken had a big influence on strategy. The decision to increase production capacity was followed by an action to start a KTP and recruit graduates with manufacturing management degrees to assist in implementing the new production platform. Value stream analysis and OEE analysis by one of the graduates revealed that capacity bottlenecks were dependant on product mix because of the high variety product offering. This led to the decision to simulate then reconfigure the shop floor to form cells for dedicated product lines to reduce lead time. This improved throughput and responsiveness to customers. and gave Blairs competitive advantage over foreign competitors on both price and customer delivery performance.

  c. Looking at the arrows between boxes, do you think they are accurate? Are they faithful to the events at the company? Please explain your revisions in arrows briefly.

Perhaps the arrow from appointment of new MD and removal of waste in the system should be reversed.

I do not think there should be a separate box for "developed new business plan bespoke products". The selling wide range of products in high volumes strategy was the beginning of

the maxim "the answer is yes, now what's the question" in response to customer enquiries. The business plan was not just about bespoke products because they were already being supplied but more about not having a product catalogue but being flexible to customer requirements.

75% of the work goes in the bin does not have an arrow leading to it. This finding was a consequence of value stream and waste analysis carried out by on of the KTP graduates

> **d.** Is my discussion of outcomes at the end of the map accurate from your point of view? What revisions would you suggest to make it more accurate?

> *The outcomes are accurate*

> **e.** Any other concluding comments and suggestions:

The overall strategy during the first 4 years from 1997 was survival and this was achieved by very tight financial control with accountability for expenditure on anything at the MD level. This culture continues and the improvement activity expenditure is very focused towards a few projects at a time so that they can be easily controlled and executed. This means that cash flow does not become an issue as often as it does in other SME's

2. Looking at the researcher's conclusions (see attached):
(Feel free to jot notes directly on the document itself, if that will be easy.)
> **a.** What errors of facts do you see, as of March 2006?
The conclusions are good and reflect the way Blairs operates
> **b.** What differences in interpretation do you have?
No major difference in interpretation

3. Looking at the researcher's answers (in blue) to the research questions below, could you validate/ amend them:
She predicts answers for the listed RQs below in the context of Blairs.

Broad RQ: How does the strategy process work in SMEs?
Strategies and related processes are associated with continuity of the business and high performance. In order to achieve this, the firm seems to adopt an analytical approach to manage its strategies. This approach may result in new emergent strategies however the firm engages with a rational set of strategic activities to seize those opportunities. Regular/formal strategy away days, frequent/formal management meetings, written down and published strategy documents, SWOT analysis are some examples as evidence towards a formal approach to strategy process. The firm appears to employ a fairly analytical approach rather than bold trial and error based decision making. This was manifested in two ways. First, most major decisions were made based on the results of financial analysis (i.e. pricing analysis). Second, the management team tasked with the mission of planning and evaluating the company's future in regular strategy away days. SWOT analysis and feedback from strategic actions such as sales and financial figures were the order of those strategy meetings. However, there are both emergent and planned aspects of the dynamic relations between strategic decisions/ initiatives and implementation plans. For example, bespoke products business strategy emerged following an extensive market research.

This is a good summary of the strategy process in Blairs

  RQ1. What are the key strategic activities that could be carried out by SMEs in the strategy process?

Managing cash flow; Negotiating with banks/lenders; Investment in new product lines; Recruiting new people who shares the same values and vision/ HR management and workforce alignment; Investing in people, training; Negotiating with trade unions on skills development; Defining roles and responsibilities; Benchmarking in order to make changes in the firm such as pay scales, image etc; Managing strategic change; Removing blockers to change and new direction; Foreseeing, monitoring, assessing and enacting with the external environment; Seeking opportunities for sustainable performance; Carrying out market research to understand customers and company position in the market; developing mission and vision; Developing and checking KPIs for strategy evaluation; Using external expertise such as universities and market research companies for managing several aspects of the strategy process; Analysing the environment by attending tradeshows; Plotting the industry cycle to follow up demand; Discussing sales statistics in monthly board meetings so as to gather feedback from strategic actions; Communicate suppliers, customers, stakeholders and banks continuously; Monitoring economic trends and interpreting them for decision making; Analysing capabilities; Objectives and weekly targets are set; Investing in new machines; Project management to achieve goals; Systematic inventive thinking programme implemented to foster ideas; Interacting with legislative bodies; reviewing strategy via SWOT and pricing analysis

I think you have covered everything here.

RQ2. What are the key features of the strategy process in the context of SMEs?
The strategy process is characteristically focused on regenerating the business, resource allocation (financial and human resources), stake holder relationships, market analysis to spot opportunities, human resources management and operations management. Flexibility/responsiveness (QRM implementation for instance), opportunity seeking, and efficiency are at the core of strategy processes in the organisation. As the MD says 'the trick is staying flexible but stopping yourself being diverted once you have been decisive'. Another important feature of the strategy process is being strongly tied to organisational values and culture (*from thought to finish*!).

The need to use resources effectively in an SME is reflected in Blairs" from thought to finish" with a limited range of projects on the go at anytime to ensure they are implemented and deliver results. The "attract outstanding people and rewards strategy" is very distinctive and the overarching strategy of the company. Not many SMEs operate this way

Knowledge transfer is a well established strategic resource in Blairs this is achieved by KTP and other projects with a range of university departments

RQ3. What strategy tools are being employed in SMEs?
The company employed a number of strategy tools when decision making and execution. For example, *vision/mission* statements directs the communication of company objectives and values and are attached on glass in foyer. *Market research/survey, industry cycle plots, capabilities maturity model and benchmarking* are other strategy tools used in decision making processes. For example, the firm used benchmarking when purchasing a new MIS system and before reorganising salaries and benefits for staff. Capabilities maturity model is used by the Finance Director to understand company capabilities so as to make strategic choices. Besides, *KPIs* are in place in result of negotiations and discussions in the organisation and set to check how the company is doing against objectives and targets. Last but not least, *Six box approach, project management* and benchmarking are the tools the management team is employing during operational processes.

Building brand image is a strategic tool being used by linking to a variety of bodies such as chamber of commerce, member of KTP management committee, member of Interface management committee, member of management committee of Scottish Enterprise etc.

RQ4. How do strategic initiatives link to implementation in SMEs?
In 1997s the new vision and strategic plans and strategic changes were executed in the company through *workforce alignment* and *human resources* management. In order to achieve this people sharing the vision stayed in the business only. At that period, the new strategy and implantation were linked with the MD's autocratic management style from a top down fashion. Another important element in linking strategies with implementation plans is *maintaining good relationships with banks* and other lenders. The Company *communicates* its financial targets with lenders openly and the managers expressed that consistency in what you are promising and actually doing are important in negotiations with lenders. Also taking a *proactive role* and involving in government bodies to get the industry deregulated helps the firm link strategic plans with actions. The firm spent considerable effort into elimination of waste and inefficiencies in tendering process in construction sector in this way.

Blairs have a very strong linkage to projects relating to strategic initiatives and deploy those initiatives by very tight financial control of these projects.

MANY THANKS FOR YOUR HELP & TIME. Please return this form to Aylin Ates.

Appendix VB - Response Form for Conceptually Ordered Map Verification (Cemtron)

Company name: *Cemtron, Fife, Scotland*
Your name: *Dr. Peter Ball*
Your involvement with the company: *Supply chain counsellor for 1 year (2002-2003) and KTP programme lead/supervisor for 2 years (2004-2006)*

Your reactions and feedback to the materials you have read can be of much help in validating them. You can provide the researcher with more confidence in her conclusions, and can show her where her explanations are partial or mistaken, and need to be revised for more accuracy.

Remember! I am asking you to think back to the way things were at the time of the interviews on April 2006.

General comment that the data gathered is as reasonably accurate and fair representation that any case researcher could be expected to create. There are minor observations that come from seeing the company "from the inside". Most comments are to prompt clarity, the rest are to tighten interpretation, none is to correct errors.

1. Looking at the conceptually ordered map (see attached):
   a. Generally speaking, how accurate do you consider the map to be, as of April 2006? Please say a little about why you think so.
Yes, as accurate as can be expected. Minor annotations made, I think you could be clearer on the timeline
   b. Are there any important elements missing among actions or strategic initiatives? List them here, and/or draw them in on the map.
One only, you appeared to imply the expansion of the customer base was by services but there were a number of customers they were adding to their portfolio that were only production.
   c. Looking at the arrows between boxes, do you think they are accurate? Are they faithful to the events at the company? Please explain your revisions in arrows briefly.
See annotations, no errors, only clarification required
   d. Is my discussion of outcomes at the end of the map accurate from your point of view? What revisions would you suggest to make it more accurate?
See minor annotations
   e. Any other concluding comments and suggestions:
See minor annotations

2. Looking at the researcher's conclusions (see attached):
(Feel free to jot notes directly on the document itself, if that will be easy.)
   c. What errors of facts do you see, as of April 2006?
See minor annotations
   d. What differences in interpretation do you have?
I always regarded the company to be good on process/structured thinking rather than formal use of structured tools and techniques that can be easily recognized by academics.

3. Looking at the researcher's answers (in blue) to the research questions below, could you validate/ amend them:

She predicts answers for the listed RQs below in the context of Cemtron.

Broad RQ: How does the strategy process work in SMEs?
Cemtron do not employ a very exhaustive and analytical approach to decision making and execution of strategy. There are not much structured ways of doing things in Cemtron. There are guidelines but mostly informal because the company does not want to block people's imagination by limiting them with too many structures in place. Strategy process works informally without written down or published strategy documents.

Fully agree with the informality. I would question if this was deliberate avoiding blocking imagination or whether it is a convenient excuse. I had the impression when in the company that the informality gave the company the speed and flexibility that provided its competitive edge. There was a shared understanding in the management team rather than a common well followed formal process.

RQ1. What are the key strategic activities that could be carried out by SMEs in the strategy process?
Seeking and analysing opportunities in the environment; Seeking new customers; Carrying out what-if scenarios, 3 month rolling forecasts, risk analysis; Resource allocation (HR and financial); Monitoring industry, sector and business trends globally; Evaluating and pursuing opportunities; Strategic choices made; Communicating strategy internally; Developing unique capabilities to differentiate in the sector; Defining grand strategies and core elements of the business as well as a roadmap how to get there; Setting targets for growth; Execution of strategy and expanding activities into service market; Investing in new buildings and equipment; Developing projects to involve customer design so as to enhance customer relationships; Improving operational efficiency so carrying out cause analysis, implementing 5S and balanced scorecard; Planning and budgeting through drawing a yearly financial plan; Human resources planning; Defining roles and responsibilities; Developing and implementing training strategy and succession planning for managers; Communicating with customers to establish open long term relationships (having cost meetings with customers); Communicating with employees to inform them on strategic changes; Managing strategic changes and establishing a desired culture; Forming cross functional change management teams; Institutionalising strategy through involving employees in coming up innovative ideas/ empowering people to take more responsibility; Reducing resistance to change; Revising strategy according to feedback gathered from customer satisfaction surveys, personnel questionnaires, checking KPIs on a monthly basis and checking sales, revenue, capacity, stock, profit in 9 am daily meetings; Measuring departmental performance via balanced scorecard to manage cash;

Yes, all are representative of Cemtron. All are genuine intent that would be observed by any experienced case researcher. I have a minor comment that I could observe from working with the company over a long period that not all are fully successful/sustained, e.g. 5S was a sporadic "3S" and that customer survey/feedback is as and when rather than scheduled.

RQ2. What are the key features of the strategy process in the context of SMEs?
The strategy process features by exploiting superior technical and operational knowledge, opportunity seeking globally, focus on services, diversification of customer base, regenerating the business, customer intimacy, openness, honesty, improvement suggestions to client's design, internal communication, training, financial management, ongoing environmental analysis and reacting changes in the environment quickly. On the other hand, flexibility is deemed to be difficult to achieve since it is not always possible to give what customer wants.

Agree with each of the sub-points, I would question whether what you have document is process or more "features" and "tools".

RQ3. What strategy tools are being employed in SMEs?

They adopt a number of strategy tools when decision making, environmental scanning and execution. They draw on *mission* statements to formalize what the company is trying to achieve and to communicate it. The mission statement of Cemtron is 'to provide competitive, customer driven, total quality solutions to the electronics sub-contract manufacturing sector.' They also use several tools which provide help to decision making, analysing opportunities in the environment and planning resources. These tools are *what-if scenarios, risk analysis, forecasting, basic pricing modelling, budgets and other financial terms (e.g. ROI, profit), balance sheet and cause analysis*. Cause analysis helps understand manufacturing related problems and root causes so as the company focuses on those problem areas.

Besides, the firm utilizes some strategy tools for gathering feedback from strategic actions such as *customer satisfaction surveys, personnel questionnaires* and checking *KPIs*. Customer satisfaction survey results and balance sheet are providing information for measuring the company performance. Forecasts, scenarios and feedback are discussed in daily 9 am meetings to react quickly to business changes. KPIs are checked on a monthly basis in order to understand whether the business is making money and solvent. In addition, *5S, balanced scorecard and succession planning* are among strategy tools the firm is using when executing operational and other internal strategies. For instance, 5S and quality improvement programmes are implemented in the firm. Also, the HR department is working on a training strategy for managers and shop floor staff using succession planning so as to move employees to the next level into taking more responsibilities as the business grows. This is inline with the MD's ambition to seek more opportunities in the environment. A the management team takes on \ore responsibility into day-to-day management of the business, he will have more time to spend time abroad and seek new business opportunities and partnerships into future direction of the business.

Do they have tools for environmental scanning? Observation that the tools you have listed are only financial ones?

RQ4. How do strategic initiatives link to implementation in SMEs?

The strategies emerge from actions and feedback from the environment and complemented with execution of necessary changes in the organisation through both planned and emergent strategic action plans. In achieving this, *communication* channels with stakeholders remains key in linking strategic plans with execution. Thus, the firm is spending a considerable effort in finding ways to communicate what, with whom and how much/how often. It is an essential process to communicate planned changes and to inform employees about management level decisions in Cemtron. The firm is spending a considerable management time for creating a better fit between organisational changes and the employees' perception about the changes.

Also, *seeking financial resources/ investments* sought is another significant theme which enabled regenerating the business in 1999s. When the business was losing money under previous ownership, an opportunity came along and a London based investor had seen future in the business and invested for reinventing the business. Since then, the business is constantly seeking opportunities in the global business environment.

Global business covers supply side, at the time (2006) I don't recall global demand side (customers). Otherwise, accurate reflection.

MANY THANKS FOR YOUR HELP & TIME. Please return this form to Aylin Ates.

Appendix VC - Response Form for Conceptually Ordered Map Verification (Houston Co-pack)

Company name: *Houston Co-pack, Paisley, Scotland*
Your name: *Prof. Umit Bititci*
**Your involvement with
the company:**   *Consultancy, KTP programme over 5 years and partner in EPSRC and EU funded project*

Your reactions and feedback to the materials you have read can be of much help in validating them. You can provide the researcher with more confidence in her conclusions, and can show her where her explanations are partial or mistaken, and need to be revised for more accuracy.

Remember! I am asking you to think back to the way things were at the time of the interviews on March 2006.

1. Looking at the conceptually ordered map (see attached):

      a. Generally speaking, how accurate do you consider the map to be, as of March 2006? Please say a little about why you think so.

Accurate as is reflects the decisions, actions and outcomes as I have observed and understood them

      b. Are there any important elements missing among actions or strategic initiatives? List them here, and/or draw them in on the map.

There is always more detail that can be included... however the map as it provides a complete and accurate picture at the correct level of detail

      c. Looking at the arrows between boxes, do you think they are accurate? Are they faithful to the events at the company? Please explain your revisions in arrows briefly.

There is a lot of detail here to try to take in...there is one area that does not make sense, that is how does Empowering People lead to Lower Prices?... are there a intermediate steps missing, such as Greater Engagement in Continuous Improvement Initiatives → Improved Productivity → Lower Prices????

      d. Is my discussion of outcomes at the end of the map accurate from your point of view? What revisions would you suggest to make it more accurate?

Accurate with exception of the above point

      e. Any other concluding comments and suggestions:

it may be worthwhile to ensure that the text makes references to various parts of the map so that reader can better follow the flow of the logic from the map

2. Looking at the researcher's conclusions (see attached):
(Feel free to jot notes directly on the document itself, if that will be easy.)

      e.   What errors of facts do you see, as of March 2006?

See comments on document

      f.   What differences in interpretation do you have?

See comments on document re investment with a partner

3. Looking at the researcher's answers (in blue) to the research questions below, could you validate/ amend them:

She predicts answers for the listed RQs below in the context of Houston Co-pack.

Broad RQ: How does the strategy process work in SMEs?

Strategy process does not rely on quantitative and formal methods generally. For example, a strategic activity such as scanning the environment is done mostly via word of mouth. The strategy process is more informal and messy rather than being analytical, linear and neatly planned as seen on the conceptually ordered map. There seems to be no specific beginning or end to the strategy process. Strategic plans and implementation activities do not follow each other sequentially but instead they interact dynamically. Sometimes, implementation activities result in new emergent or planned strategic decisions and sometimes strategic plans lead a series of implementation activities.

No issues here

RQ1. What are the key strategic activities that could be carried out by SMEs in the strategy process?

Developing the person in the role/training; Developing SOPs and KPIs to ensure business process improvements; Environmental scanning through informal ways; Strategy development; Vision and mission development; Monitoring competitors; Communicating customers; SWOT analysis to understand capabilities, to evaluate market opportunities and to exploit resources; Justification of resources; Investments in equipment and systems (e.g. ERP, MIS, a new bottling line); Seeking opportunities and financial resources; Convincing investors to back up the business/ negotiations/persuading them; Planning and budgeting; Reviewing business strategy, revising personal and departmental goals in management meetings.

May be should have about forging partnerships and sharing risks

RQ2. What are the key features of the strategy process in the context of SMEs?

Maintaining close customer relations and employee development are the main features of the strategy process in the Company. Strategy process in the Company also focuses on seeking financial resources in an opportunistic fashion, regenerating the business thorough differentiating and operational productivity improvements. The Company not only focuses on short term results but also long term strategic issues are considerably well thought and acted upon.

No issues here

RQ3. What strategy tools are being employed in SMEs?

SWOT is carried out prior to vision and mission setting for the business. SWOT also helped understanding company capabilities and resources as well as capturing opportunities in the environment. *Job costing and profitability analysis* is used in financial areas to make decisions.

KPIs in general are used… both customer service and costing/profitability focused KPIs

RQ4. How do strategic initiatives link to implementation in SMEs?

Planned or emergent strategic initiatives link with actions and implementation plans via *communication* with competitors, customers and employees. For example, price restructuring and productivity improvement decisions emerged as a result of communication with customers and monitoring competitor service offerings. Also, justification of resources and *seeking financial resources* to invest into new markets play an important role in linking plans with actions i.e. Financial investment needed to set up the bottling business was provided by an investor which was opportunistic. Training, investing in people and developing the person in the role are also important to enable people to institutionalising and embedding the strategy. Execution of strategic decisions is carried out mostly through communication channels, meetings, discussions, and so on.

No issues here

MANY THANKS FOR YOUR HELP & TIME. Please return this form to Aylin Ates.

Appendix VD - Response Form for Conceptually Ordered Map Verification (TFC)

Company name:	*TFC Cables*
Your name:	*Dave Mackay*
Your involvement with the company:	*External consultant, participated case study interviews, ongoing working with the company through student placements*

Your reactions and feedback to the materials you have read can be of much help in validating them. You can provide the researcher with more confidence in her conclusions, and can show her where her explanations are partial or mistaken, and need to be revised for more accuracy.

Remember! I am asking you to think back to the way things were at the time of the interviews on August 2006.

1. Looking at the conceptually ordered map (see attached):

> **a.** Generally speaking, how accurate do you consider the map to be, as of August 2006? Please say a little about why you think so.

The map as it stands is accurate in terms of the current content. There are perhaps a couple of missing bridging elements regarding the potential divestment of the company/ preparation and the levels of hierarchy in the organization when it comes to decision making.

> **b.** Are there any important elements missing among actions or strategic initiatives? List them here, and/or draw them in on the map.

Have communicated them to Aylin in a meeting 2/5/8 regarding the points in (a)

> **c.** Looking at the arrows between boxes, do you think they are accurate? Are they faithful to the events at the company? Please explain your revisions in arrows briefly.

The arrows are accurate to the best of my knowledge and they do reflect the general patterns of flow of information in the business ; i.e. between levels of the map, the overall pattern of the arrows is very much representative of the situation at TFC.

> **d.** Is my discussion of outcomes at the end of the map accurate from your point of view? What revisions would you suggest to make it more accurate?

Revisions added to the map – the existing outcomes are accurate but one is missing – improved cash flow

> **e.** Any other concluding comments and suggestions:

The map is highly representative of the situation of TFC as of August 2006. I think a summary map showing the overall flow between levels would benefit the work and illustrate the extremely "Top Down" approach of the organization.

2. Looking at the researcher's conclusions (see attached):
(Feel free to jot notes directly on the document itself, if that will be easy.)

> **g.** What errors of facts do you see, as of August 2006?

The document is factually accurate but not wholly complete – recommend amending as above.

> **h.** What differences in interpretation do you have?

No difference in interpretation... added some further illustrative examples – written on the map and discussed with Aylin

3. Looking at the researcher's answers (in blue) to the research questions below, could you validate/ amend them:
She predicts answers for the listed RQs below in the context of TFC.

Broad RQ: How does the strategy process work in SMEs?
In TFC the strategy process is carried out in a fairly informal fashion (in particular the planned element of the strategy – no fixed review date, no publication, no formal dissemination activities). There is evidence that there are no written down or published long term strategy and vision. Many arrows indicate that the strategy process is cyclical (particularly the emergent strategy) and iterative between actions and strategic plans and decisions.

Comments added in text above!

RQ1. What are the key strategic activities that could be carried out by SMEs in the strategy process?
Scanning environment and reacting legislative changes mainly informal ways, word of mouth, **trade shows**; Allocation of HR to service areas such as SCM and NPI; Evaluating opportunities in the environment; Institutionalising and embedding strategy through creating a common language/jargon (e.g. **jump on s**); **Communication with customers;** Allocating human resources and overtime planning; **reorganisation around operational areas such as a new layout, Kanban and Kaizen systems**; Making improvement suggestions to client's design to maintain long term customer relations; Defining short term objectives and targets around quality and shipment dates; Workforce alignment through training and motivation; Staff appraisal systems implemented; Benchmarking processes; bringing in external expertise; Continuous improvement activities; managing change through empowering people, encouraging them to generate innovative ideas, involving them to decision making so as to creating the right culture; **Communicating changes with staff in regular meetings**; Making strategic choice and investing in strategic partnerships to increase capacity and responsiveness; Carrying out priority and treats analysis; **Managers holding multiple functions**; Revising strategy in regular management meetings; Gathering feedback from customers; Checking KPIs for early reaction to modifying goals and targets; Demonstrating a 'united front', hands on approach and commitment in bringing strategic changes to the organisation.

Nothing to add – a comprehensive and complete list. Pivotal activities highlighted.

RQ2. What are the key features of the strategy process in the context of SMEs?
Strategy process in TFC has a focus on environmental scanning, service market, operational efficiency, cost cutting, quality, customer relations, flexibility and investments to layout, systems and human resources as well as strategic partnerships. Thus, staying in business therefore differentiating, opportunity seeking, flexibility/responsiveness, operational and financial focus, shifting to service sector therefore moving mass manufacturing to cheap cost countries and customer intimacy are distinctive features as they are the emerging themes.

As per the initial section, a motivating factor was the preparation of the business for divestment dressed up as potential growth – the above features are an accurate recording of the factors identified by the company as to how best to achieve these aims.

RQ3. What strategy tools are being employed in SMEs?
Benchmarking carried out operational practices with similar companies in the local context. Also the firm uses priority and threats analysis which is a customer made version of SWOT in the firm.

Second step was done in practice informally and without the actual terminology.

RQ4. How do strategic initiatives link to implementation in SMEs?

They link with emergent opportunities and/or planned strand of actions. Strategies sometimes seem to emerge from actions and sometimes are intended and thus planned from a top down fashion. Communication both internal and external plays an important role in execution of plans and strategic initiatives (e.g. constant communication and growing with the existing clients; creating a common language internally about strategies such as jump ons). Also, resource allocation (i.e. HR, financial and other) makes it possible to put strategic plans/decisions into action. For example, a new layout on the shop floor, planning overtimes for employees.

TFC was highly Top down. However, they had systems in place to make the operational staff think that there was an element of bottom up approach but in reality this was not the case! It was effectively used to motivate staff rather than contribute to strategic decision making.

MANY THANKS FOR YOUR HELP & TIME. Please return this form to Aylin Ates.

Appendix VI. Cross case analysis

Table 6.4. Cross case analysis of strategic initiatives

Strategic initiatives			
BLAIRS	**CEMTRON**	**HOUSTON**	**TFC**
▪ Business 'turn around' in 1997 ▪ Remove waste in system and making production processes more efficient ▪ Introduction of new product lines ▪ Reduce inefficiency in tendering process ▪ Focus on market penetration strategy in South-East England, London area ▪ Sell a wider range of products in relatively high volumes in make to order environment (bespoke products business model) ▪ Installation of a range of new equipment to keep up with demand and to increase manufacturing capacity ▪ Employ outstanding people and offering a world class rewards and benefits	▪ Induction of NPI (New Product Inception/ Introduction) programme in order to establish long term customer relationships (golden-cuff effect) before targeting volume ▪ Developing business in China and shifting manufacturing and assembly to Far East ▪ Moving from being a sole manufacturer to a service provider regarding logistics and warehousing which are deemed to be higher value businesses in the UK ▪ Reducing dependency to one major customer and instead diversification of the customer base ▪ Developing and	▪ Focus on bottling rather than co-packing ▪ Diversification of the customer base to reduce dependency to one customer ▪ Improving production processes and productivity ▪ Price restructuring ▪ ERP, MIS (Management Information System) implementation ▪ Organisational restructuring regarding roles and responsibilities ▪ Building ongoing relationships with customers	• To change from a high margin, small number of customers and high volume manufacturer to more of a service provider that is serving to an increasingly diverse customer base. • Diversify its customer base in response to previous bad experiences from depending on one or two major customers. • Expand to foreign operations of existing customers and building strong relationships (due to declining local market size within the UK). • To response threats from low cost economies on the topics of remaining cost competitive, the reverse engineering of products, preventing of stealing IP (Intellectual Property) without moving operations to China and/or India. • Partnering up with an Estonian manufacturer for the provision of all mass manufactured components and assemblies (investing in strategic

Strategic initiatives			
BLAIRS	**CEMTRON**	**HOUSTON**	**TFC**
package ▪ Implement QRM (Quick Response Manufacturing) to cope with wide range of products and demand variations.	implementing an Internal Communication Process		partnerships). • To facilitate the value added flexibility of operations whilst minimising cost. • Improving internal efficiency in order to stay competitive. • Focusing on removal of waste in order to deliver flexibility and profit so as to be a high value service provider.

Table 6.5. Cross-case analysis matrix for thematic pattern searching

Company / Strategy process phase/activities	Blairs of Scotland	Cemtron	Houston Co-pack	TFC
FORMULATION PHASE				
Analyse external environment	▪ Foreseeing, monitoring, assessing and enacting with the external environment ▪ Carrying out market research to understand customers (1) and company position in the market ▪ Analysing the environment by attending tradeshows (2) ▪ Plotting the industry cycle to follow up demand ▪ Communicate suppliers, customers, stakeholders and banks(1) continuously ▪ Monitoring economic trends (3) and interpreting them for decision making	▪ Monitoring industry, sector and business trends globally (3)	▪ Environmental scanning through informal ways ▪ Monitoring competitors (1) ▪ Communicating customers (1) ▪ SWOT analysis to understand capabilities, to evaluate market opportunities (3) and to exploit resources	▪ Scanning environment and reacting legislative changes (3) mainly informal ways, word of mouth, trade shows (2) ▪ Communication with customers (1)
Analyse company core competencies/ capabilities	▪ Analysing capabilities	▪ Developing unique capabilities to differentiate in the sector	▪ SWOT analysis to understand capabilities, to evaluate market opportunities and to exploit resources	
Evaluate opportunities	▪ Seeking opportunities for sustainable performance	▪ Seeking and analysing opportunities in the environment ▪ Carrying out what-if scenarios, 3 month rolling forecasts, risk analysis ▪ Evaluating and pursuing opportunities	▪ SWOT analysis to understand capabilities, to evaluate market opportunities and to exploit resources ▪ Seeking opportunities and financial resources	▪ Evaluating opportunities in the environment
Strategic choice		▪ Strategic choices made		▪ Making strategic choice and investing in strategic partnerships to increase capacity and responsiveness
Define grand strategy and goals	▪ Developing mission and vision (4)	▪ Defining grand strategies and core elements of the business as well as a roadmap how to get there ▪ Developing and implementing training	▪ Developing focused strategies (clear focus on customer and services) in 2001 ▪ Strategy development	

Company Strategy process phase/activities	Blairs of Scotland	Cemtron	Houston Co-pack	TFC
		strategy and succession planning for managers	▪ Vision and mission development (4)	
Define short-term objectives and action plans	▪ Objectives and weekly targets (5) are set	▪ Setting targets (5) for growth		▪ Defining short term objectives and targets around quality and shipment dates
IMPLEMENTATION PHASE				
Execute strategy	▪ Project management to achieve goals	▪ Execution of strategy and expanding activities into service market ▪ Implementing 5S and balanced scorecard ▪ Measuring departmental performance via balanced scorecard to manage cash.		▪ Continuous improvement activities
Allocate resources ▪ Planning and budgeting ▪ Workforce alignment	▪ Managing cash flow ▪ Investment in new product lines (6) ▪ Recruiting new people who shares the same values and vision/ HR management and workforce alignment ▪ Investing in new machines (6)	▪ Resource allocation (HR and financial) ▪ Investing in new buildings and equipment (6) ▪ Planning and budgeting through drawing a yearly financial plan ▪ Human resources planning	▪ Justification of resources ▪ Investments in equipment and systems (e.g. ERP, MIS, a new bottling line) (6) ▪ Planning and budgeting ▪ Investing (6) in operational process improvements	▪ Allocation of HR to service areas such as SCM and NPI ▪ Allocating human resources and overtime planning ▪ Workforce alignment through training and motivation
Institutionalise strategy ▪ Communicate ▪ Embed strategy	▪ Investing in people, training (7) ▪ Systematic inventive thinking programme implemented to foster ideas (8) ▪ Developing KPIs for strategy evaluation and communication (9)	▪ Communicating strategy (9) internally ▪ Developing and implementing training (7) strategy and succession planning for managers ▪ Communicating with employees (9) to inform them on strategic changes ▪ Managing strategic changes and establishing a desired culture ▪ Institutionalising strategy through involving employees in coming up innovative ideas/ empowering people (8) to take more responsibility	▪ Developing the person in the role/training (7) ▪ Developing SOPs and KPIs (9) to ensure business process improvements	▪ Institutionalising and embedding strategy through creating a common language/jargon (e.g. jump on s) ▪ Staff appraisal systems implemented ▪ Encouraging staff to generate innovative ideas (8) involving them to decision making so as to creating the right culture ▪ Communicating changes with staff in regular meetings (9)
Manage strategic change	▪ Defining roles and responsibilities (10) ▪ Benchmarking in order to make changes in the firm such as pay scales, image etc	▪ Defining roles and responsibilities (10) ▪ Managing strategic changes and establishing a desired culture ▪ Forming cross functional change management teams	▪ Restructuring prices ▪ Internal restructuring (10) in 2005 ▪ Strategic repositioning in 2005	▪ Reorganisation (10) around operational areas such as a new layout, Kanban and Kaizen systems ▪ Managing change through empowering people

Company / Strategy process phase/activities	Blairs of Scotland	Cemtron	Houston Co-pack	TFC
	▪ Managing strategic change ▪ Removing blockers to change and new direction	▪ Reducing resistance to change		▪ Demonstrating a 'united front', hands on approach and commitment in bringing strategic changes to the organisation
REVIEW & CONTROL PHASE				
Gather feedback from strategic actions	▪ Discussing sales statistics in monthly board meetings so as to gather feedback from strategic actions	▪ Revising strategy according to feedback gathered from customer satisfaction surveys, personnel questionnaires, checking KPIs (11) on a monthly basis and checking sales, revenue, capacity, stock, profit in 9 am daily meetings		▪ Gathering feedback from customers
Revise strategy	▪ Reviewing strategy via SWOT and pricing analysis	▪ Revising strategy according to feedback gathered from customer satisfaction surveys, personnel questionnaires, checking KPIs (11) on a monthly basis and checking sales, revenue, capacity, stock, profit in 9 am daily meetings	▪ Developing SOPs and KPIs (11) to ensure business process improvements	▪ Revising strategy in regular management meetings
Appraise, test and reconcile strategy with departmental plans and needs and modify goals if required	▪ Checking KPIs (11) for strategy evaluation		▪ Reviewing business strategy yearly, every 6 months progress check review, quarterly reviews to explain financial results to staff, revising personal and departmental goals in management meetings	▪ Checking KPIs (11) for early reaction to modifying goals and targets
OTHER				
	▪ Negotiating with banks/lenders (12) ▪ Negotiating with trade unions (12) on skills development ▪ Using external expertise (14) such as universities and market research companies for managing several aspects of the strategy process ▪ Interacting with legislative bodies (12)	▪ Seeking new customers (13) ▪ Developing projects to involve customer design so as to enhance customer relationships (13) ▪ Improving operational efficiency so carrying out cause analysis ▪ Communicating with customers to establish open long term relationships (having cost meetings with customers) (13)	▪ Convincing investors (12) to back up the business/ negotiations/persuading (12) them (Tomatin, a big customer, collaboration and invested in developing bottling business)	▪ Making improvement suggestions to client's design to maintain long term customer relations (13) ▪ Benchmarking processes ▪ Bringing in external expertise (14) ▪ Carrying out priority and treats analysis ▪ Managers holding multiple functions

The pattern is seen in at least two of the companies in Table 6.5 (highlighted in red)

(1) Monitoring and communicating with customers, suppliers, stakeholders, banks, competitors

(2) Participating in tradeshows

(3) Following economic trends, sectoral, market and legislative changes

(4) Developing vision and mission

(5) Setting targets

(6) Investing in new equipment, systems and buildings

(7) Training and developing employees

(8) Fostering innovative ideas among employees

(9) Communicating changes with employees

(10) Organisational restructuring regarding roles and responsibilities

(11) Checking KPIs

(12) Negotiating, interacting and convincing investors and legislative bodies

(13) Involving in customer projects to establish long term relationships

(14) Bringing in external expertise (universities etc)

Table 6.6. Pattern searching across within-case analysis answers to the RQs

Research Question \ Company	Blairs of Scotland	Cemtron	Houston Co-pack	TFC
RQ2. What is the key focus of the strategy process in the context of manufacturing SMEs?	The strategy process is characteristically focused on regenerating the business (15), resource allocation (financial and human resources), stake holder relationships (19), market analysis to spot opportunities (17), human resources management and operations management (18). Flexibility/responsiveness (QRM implementation for instance) (16), opportunity seeking (17), and efficiency are at the core of strategy processes in the organisation. As the MD says 'the trick is staying flexible but stopping yourself being diverted once you have been decisive'. (16) Another important feature of the strategy process is being strongly tied to organisational values and culture (*from thought to finish*!).	The strategy process features by exploiting superior technical and operational knowledge (18), opportunity seeking globally (17), focus on services, shifting manufacturing overseas (20), diversification of customer base (19), regenerating the business (15), customer intimacy, openness, honesty, improvement suggestions to client's design (19), internal communication, training, financial management, ongoing environmental analysis and reacting changes in the environment quickly. On the other hand, flexibility (16) is deemed to be difficult to achieve since it is not always possible to give what customer wants (19).	Maintaining close customer relations (19) and employee development and having a clear focus (i.e. focus on 5 key customers) (19) are the main features of the strategy process in the Company. Strategy process in the Company also focuses on seeking financial resources in an opportunistic fashion (17), regenerating the business thorough differentiating (15) and operational productivity improvements (18). Operational excellence is deemed to be very important by whisky brands (18) so Houston co-pack is sharing productivity gains and making the customer see Houston Co-pack as an extent to their business (19). Another important aspect of strategy process is flexibility. The firm is careful about agreeing what it is delivering then focuses on flexibility in products and services (16). The Company not only focuses on short term results but also long term strategic issues are considerably well thought and acted upon.	Strategy process in TFC has a focus on environmental scanning, service market (20), operational efficiency, cost cutting, quality (4), customer relations (5), flexibility (16) and investments to layout, systems and human resources as well as strategic partnerships (20). Thus, staying in business therefore differentiating (15), opportunity seeking (17), flexibility/responsiveness (16), operational (4) and financial focus, shifting to service sector therefore moving mass manufacturing to cheap cost countries (20) and customer intimacy (19) are distinctive features as they are the emerging themes.
RQ3. What strategy tools, techniques and methods are being employed in manufacturing SMEs?	The company employed a number of strategy tools when decision making and execution. For example, *vision/mission* statements (21) directs the communication of company objectives and values and are attached on glass in foyer. *Market research/survey, industry cycle plots* (25), *capabilities maturity model and benchmarking* (24) are other strategy tools used in decision making processes. For example, the firm used benchmarking when purchasing a new MIS system and before reorganising salaries and	They adopt a number of strategy tools when decision making, environmental scanning and execution. They draw on *mission* statements (21) to formalize what the company is trying to achieve and to communicate it. The mission statement (21) of Cemtron is 'to provide competitive, customer driven, total quality solutions to the electronics sub-contract manufacturing sector.' They also use several tools which provide help to	*SWOT is carried out (22)* prior to vision and mission setting for the business. SWOT (22) also helped understanding company capabilities and resources as well as capturing opportunities in the environment. *Job costing and profitability analysis* is used in financial areas (26) to make decisions. Job costing and profitability analysis is used to restructure service offerings and	*Benchmarking* (24) carried out operational practices with similar companies in the local context. Also the firm uses priority and threats analysis which is a customer made version of SWOT (22) in the firm.

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Research Question	Company	Blairs of Scotland	Cemtron	Houston Co-pack	TFC
		benefits for staff. Capabilities maturity model is used by the Finance Director to understand company capabilities so as to make strategic choices. Besides, *KPIs* (23) are in place in result of negotiations and discussions in the organisation and set to check how the company is doing against objectives and targets. Last but not least, *Six box approach, project management* and benchmarking (24) are the tools the management team is employing during operational processes. They also review strategy via SWOT (22) and pricing analysis in strategy away days.	decision making, analysing opportunities in the environment and planning resources. These tools are *what-if scenarios* (25), *risk analysis, forecasting, basic pricing modelling, budgets and other financial terms (e.g. ROI, profit), balance sheet* (26) *and cause analysis*. Cause analysis helps understand manufacturing related problems and root causes so as the company focuses on those problem areas. Besides, the firm utilizes some strategy tools for gathering feedback from strategic actions such as *customer satisfaction surveys* (25), *personnel questionnaires* and checking *KPIs* (23). Customer satisfaction survey (25) results and balance sheet are providing information for measuring the company performance. Forecasts, scenarios and feedback (25) are discussed in daily 23 am meetings to react quickly to business changes. KPIs (23) are checked on a monthly basis in order to understand whether the business is making money and solvent. In addition, *5S, balanced scorecard and succession planning* are among strategy tools the firm is using when executing operational and other internal strategies. For instance, 5S and quality improvement programmes are implemented in the firm. Also, the HR department is working on a training strategy for managers and shop floor staff using succession planning so as to move employees to the next level into taking more responsibilities as the business grows. This is inline with the MD's ambition to seek more opportunities in the environment. A the management team	prioritizing jobs. Although the firm lost business from Allied, a big customer because they thought Houston services were expensive, after the job costing and profitability analysis Houston reassured its strategy and decided to keep what they were doing before. Also *KPIs* (key performance indicators) are used (23). One of the key customers, Allied, asked the Company to implement some performance measures initially. Now this tool is used on a monthly basis. Also *vision and mission* statements (21) are used to communicate business objectives and strategy.	

Company Research Question	Blairs of Scotland	Cemtron	Houston Co-pack	TFC
		takes on \ore responsibility into day-to-day management of the business, he will have more time to spend time abroad and seek new business opportunities and partnerships into future direction of the business.		
RQ4. How do strategic initiatives and decisions lead to implementation in manufacturing SMEs?	In 1997s the new vision and strategic plans and strategic changes were executed in the company through *workforce alignment* and *human resources* (28) management. In order to achieve this people sharing the vision stayed in the business only. At that period, the new strategy and implementation were linked with the MD's autocratic management style from a top down fashion (29). Another important element in linking strategies with implementation plans is *maintaining good relationships with banks* and other lenders. The Company *communicates* (27) its financial targets with lenders openly and the managers expressed that consistency in what you are promising and actually doing are important in negotiations with lenders. Also taking a *proactive role* and involving in government bodies to get the industry deregulated helps the firm link strategic plans with actions. The firm spent considerable effort into elimination of waste and inefficiencies in tendering process in construction sector in this way.	The strategies emerge from actions and feedback from the environment and complemented with execution of necessary changes in the organisation through both planned and emergent strategic action plans (29). In achieving this, *communication* channels (27) with stakeholders remains key in linking strategic plans with execution. Thus, the firm is spending a considerable effort in finding ways to communicate what, with whom and how much/how often. It is an essential process to communicate planned changes and to inform employees about management level decisions in Cemtron. The firm is spending a considerable management time for creating a better fit between organisational changes and the employees' perception about the changes. Also, *seeking financial resources/ investments* (28) sought is another significant theme which enabled regenerating the business in 1999s. When the business was losing money under previous ownership, an opportunity came along and a London based investor had seen future in the business and invested for reinventing the business. Since then, the business is constantly seeking opportunities in the global business environment.	Planned or emergent strategic initiatives (29) link with actions and implementation plans via *communication* (27) with competitors, customers and employees. For example, price restructuring and productivity improvement decisions emerged as a result of communication with customers and monitoring competitor service offerings. Besides, persuading customers to do business with Houston because of their reliable service offering helped making customers being dependant to the firm. Also, justification of resources and *seeking financial resources* (28) to invest into new markets play an important role in linking plans with actions i.e. Financial investment needed to set up the bottling business was provided by an investor which was opportunistic. Training, investing in people (28) and developing the person in the role are also important to enable people to institutionalising and embedding the strategy. Execution of strategic decisions is carried out mostly through communication channels (27), meetings, discussions, and so on.	They link with emergent opportunities and/or planned strand of actions. Strategies sometimes seem to emerge from actions and sometimes are intended and thus planned from a top down fashion (29). *Communication* (27) both internal and external plays an important role in execution of plans and strategic initiatives (e.g. constant communication and growing with the existing clients; creating a common language internally about strategies such as jump ons). Also, *resource allocation* (i.e. HR, financial and other) (28) makes it possible to put strategic plans/decisions into action. For example, a new layout on the shop floor, planning overtimes for employees.

Company / Research Question	Blairs of Scotland	Cemtron	Houston Co-pack	TFC
Broad RQ: How does the strategy process work in manufacturing SMEs?	Strategies and related processes are associated with continuity of the business and high performance. In order to achieve this, the firm seems to adopt an analytical approach to manage its strategies. This approach may result in new emergent strategies however the firm engages with a rational set of strategic activities to seize those opportunities. Regular/formal strategy away days, frequent/formal management meetings, written down and published strategy documents, SWOT analysis are some examples as evidence towards a formal approach to strategy process. The firm appears to employ a fairly analytical approach rather than bold trial and error based decision making. This was manifested in two ways. First, most major decisions were made based on the results of financial analysis (i.e. pricing analysis). Second, the management team tasked with the mission of planning and evaluating the company's future in regular strategy away days. SWOT analysis and feedback from strategic actions such as sales and financial figures were the order of those strategy meetings. However, there are both emergent and planned aspects of the dynamic relations (31) between strategic decisions/ initiatives and implementation plans. For example, bespoke products business strategy emerged following an extensive market research.	Cemtron do not employ a very exhaustive and analytical approach to decision making and execution of strategy. There are not much structured ways of doing things in Cemtron. There are guidelines but mostly informal (30) because the company does not want to block people's imagination by limiting them with too many structures in place. Strategy process works informally (30) without written down or published strategy documents.	Strategy process does not rely on quantitative and formal methods generally. For example, a strategic activity such as scanning the environment is done mostly via word of mouth. The strategy process is more informal (30) and messy rather than being analytical, linear and neatly planned as seen on the conceptually ordered map. There seems to be no specific beginning or end to the strategy process. Strategic plans and implementation activities do not follow each other sequentially but instead they interact dynamically (31). Sometimes, implementation activities result in new emergent or planned strategic decisions and sometimes strategic plans lead a series of implementation activities.	In TFC the strategy process is carried out in a fairly informal fashion (30). There is evidence that there are no written down or published long term strategy and vision. Many arrows indicate that the strategy process is cyclical and iterative (31) between actions and strategic plans and decisions.

Pattern codes for research questions

RQ2. What is the key focus of the strategy process in the context of manufacturing SMEs?

At a general level across four companies (in ==turquoise== and ==teal==):

    (15) A focus on regenerating the business and differentiation

    (16) Flexibility and responsiveness

    (17) Opportunity seeking

    (18) A focus on operational excellence (high quality, cost minimising)

    (19) Customer relationships (diversification, suggesting improvements to client design, sharing earnings)

Specific to Cemtron and TFC in electronics sector (in ==gray==):

    (20) A focus on service market and outsourcing mass manufacturing abroad

RQ3. What strategy tools, techniques and methods are being employed in manufacturing SMEs?

Most commonly used tools (if three or more company is adopting the relevant tool – in ==pink== and ==violet==)

    (21) Vision and mission statements

    (22) SWOT

    (23) KPI

Less frequently used tools (at least two companies are using the tool – in ==gray==)

(24) Benchmarking

(25) Market research (surveys, customer feedback, industry cycle plots, scenario planning)

(26) Financial analysis (job costing, profitability analysis, pricing, forecasting, budgets, balance sheet, ROI)

RQ4. How do strategic initiatives and decisions lead to implementation in manufacturing SMEs?

At a general level across four companies (in green and dark yellow)

(27) Via communication

(28) Via Resource allocation (financial and human) and investments

(29) Sometimes from a top-down fashion sometimes bottom-up fashion (in gray)

Broad RQ: How does the strategy process work in manufacturing SMEs?

Most commonly (at least three companies demonstrate the relevant theme- in yellow)

(30) Informally without published strategy documents and statements

(31) Cyclical and iterative activities interact dynamically putting the strategy-process to work