A FRAMEWORK FOR DEVELOPING A STRATEGY FOR A SMALL INFORMATION TECHNOLOGY COMPANY

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ABSTRACT

Much has been documented about the importance of effective strategic planning as a basis for an organisation to gain a sustainable competitive advantage. Inadequate strategic planning is also widely recognised to be one of the major factors that contribute to the failure of most small organisations. At the same time, developing a strategy for an information technology organisation is increasingly becoming a complex exercise, considering the rate at which the field is growing and the need for organisations in this field to respond quickly to changing market demands. For large organisations, it may be a matter of ensuring that existing, tried and tested strategies are frequently updated. For small organisations on the other hand, this may be a nightmare of an exercise.

In this research, the author explores a number of strategic planning approaches with the aim of identifying elements in them that could assist the strategy development process of a small information technology company. After a detailed analysis of conventional approaches to strategic management, it suggests a framework which uses the Core Competence Approach to strategy development as a basis. It is supplemented by selected techniques of Strategic Choice as a toolset for systematic decision-making within the strategy development process of a small information technology company. Also included, is a case study on the application and evaluation of the suggested framework for an initial strategy-development process at a typical small information technology company.

PREFACE

The work described in this dissertation was carried out in the School of Mathematics, Statistics and Information Technology, University of Natal, Pietermaritzburg, from November 2000 to January 2002, under the supervision of Professor Don Petkov.

These studies represent the original work by the author and have not otherwise been submitted in any form for any degree or diploma to any University. Where use has been made of the work of others, it is duly acknowledged in the text.

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS

AIDA   Analysis of Interconnected Decision Areas

BEE   Black Economic Empowerment

ERP   Enterprise Resource Planning

KCI   Knowledge Constitutive Interests

ICT   Information and Communications Technology

ISD   Information Systems Development

IT   Information Technology

ITMC   Information Technology Management Consulting

JDE   J. D. Edwards software

MS   Microsoft Software

R&D   Research and Development

SAP   Structure Application Programming software

SAST   Strategic Assumptions Surfacing and Testing

SMME   Small, Micro and Medium Enterprises

SSM   Soft Systems Methodology

TSI   Total Systems Intervention

UE   Uncertainty pertaining to the working Environment

UR   Uncertainty pertaining to other Related fields

UV   Uncertainty pertaining to guiding Values

CHAPTER 1

INTRODUCTION

It is known that, in the past, successful companies were built over generations. Since the invention of computers, successful companies, particularly those in the field of IT, started growing to similar sizes as those in other more established fields in less than a generation. Over the last 15 years, companies like Microsoft Corporation, have grown from almost nothing to multi-billion dollar companies. More astonishingly, over the last five years, "dot.com" companies have grown from nothing to multi-billion dollar companies in a matter of months. These recent developments in wealth creation have created major opportunities for investors and more so for small companies in the field of IT.

According to Duhaime (2001:109), "the world economy depends on small business". She states that, from the United States alone there are more than 23 million firms with a workforce smaller than 500 employees. These firms provide the majority of United States' private employment, accounting for 53 percent of the non-farm workforce, and they generated virtually all the new jobs during the first half of the 1990s. They produce 51 percent of the private gross domestic products in the United States. Small firms make a crucial contribution to technology and innovation. In the twentieth century, small United States firms pioneered the development of the aircraft, the optical scanner, the personal computer, soft contact lenses, the zipper and e-commerce on the World Wide Web.

In South Africa, small business plays an important and growing role in the economy. Statistical data from the National Small Business Regulatory Review showed that there are an estimated 302 000 micro and very small firms employing approximately 1 328 300 employees, 63 000 small enterprises employing 1.3 million people and 11 560 medium-sized enterprises employing approximately 900 000 people in South Africa (Ntsika Agency, 1998:29). Thus the role SMMEs play in terms of providing employment and boosting the economy within the South African context is significant and should be supported and encouraged. There are, however, many problems facing the SMME sector. Ntsika Enterprise Agency

suggests that two of the main problems facing SMMEs, are a lack of management expertise (planning expertise being particularly deficient) and technology transfer (Bukula, 1998:55 ; Thomas, 1995:13). This research, through the integrated nature of the topic, aims to contribute to the area of management (strategy formulation specifically) by providing a strategy-formulation model for use within the SMME sector.

It is, however, worth noting that despite the successes achieved by small IT companies in the recent years, a significant number of these companies do not succeed. Regardless of the reasons for such failures, the IT industry continues to present enormous opportunities for small companies. Analysts predict that the trend will continue for many years to come.

As much as this is encouraging for small companies, the lack of a clearly thought through strategic vision can result in ineffective strategies that can make a small company unsustainable within a short period of time. Also, due to high degrees of entrepreneurship in small companies, there is a dire need for co-ordinated vision development systems.

1.1   The Background to the Research Problem

Developing a strategy for an IT organisation, is increasingly becoming a complex exercise, considering the rate at which the field is growing and the need for organisations in this field to respond quickly to changing market demands. For large organisations, it may be a matter of ensuring that existing, tried and tested strategies are frequently updated. For small organisations where no prior strategies existed, it may be an almost impossible exercise.

Greiner (1972:100) gives five phases of organisational growth. The first phase being the period during which the organisation is small in size and new in its existence. Growth during this phase is characterised by challenges relating to such issues as leadership control, leadership personal contact with staff, administration, etcetera. Organisations that

continue to grow despite these challenges, are bound to face further challenges throughout the other phases of their growth.

Recognising the inherent nature of creativity and active pursuit for change associated with small and young organisations, calls for the review of existing strategic planning methods and their appropriateness, particularly with regard to small and young, but growing, organisations. This review of existing strategy development methods becomes even more appropriate when considering developing a strategy for a small organisation in the fast growing area of IT service provision.

A small organisation has an option to remain small or sell off to a larger organisation. Should an organisation opt for further growth, at some stage during the initial phases of growth, the organisation will be faced with the challenge of making important strategic decisions that will enable its expansion programme. According to Hisrich and Peters (1998:51), "to grow or not to grow" is an important decision taken by an entrepreneur in determining the future of his/her organisation. Their view is that, for "those that choose to grow, it is necessary to be prepared for growth and to understand its implications." The Expansion Method Matrix, (Linch, 1997:504) represents typical expansion options for consideration by a growing organisation. In later chapters, the options presented in the Expansion Method Matrix in relation to the organisation's choice of strategic direction will be explored.

It is imperative for small organisations whose viability can be determined by a simple entrepreneurial decision, to consider the appropriateness of some strategic framework for growing the organisation. This is supported by the notion that an organisation's strategy could determine its viability in the light of the predictable, the unpredictable and the unknown changes that may occur in its most important environment (Quinn, 1988:89).

The motivation for developing a framework for strategy development for a small information technology (IT) company came as a result of a real-life

need within an IT services company, Southern Focus. Southern Focus is a small IT company that provides IT services to large private and government institutions in South Africa. Over a period of twelve months, the company grew from being an applications development company using Oracle technologies, to being a diversified IT services company with partnerships including Microsoft and SAP.

As a result of some significant successes that the company has achieved in the immediate past, a number of organisations have presented further lucrative growth opportunities, not only within Southern Focus's areas of competence, but in areas where the company has limited experience as well.

Recognising the unforeseen growth that the company was experiencing, the management team became increasingly concerned about the company's future, as there was no commonly shared strategy driving the company into the future. Some of management's concerns were that certain managers were beginning to promote products and services that other managers did not realise had become part of the company's product or service offerings. In an attempt to create a shared growth strategy for the company, it became critical that management undertook a strategy development process for the company. In reviewing existing methods of strategy development, a need was identified for a strategy development framework, specifically geared towards the unique circumstances and challenges of a small IT company.

It is, therefore, the aim of this research to develop a strategy development framework by combining current strategic planning methods to assist small IT organisations to develop and implement appropriate strategies.

1.2   Goals of the Research

The main goal of the research is to develop a framework for strategy development for a small information technology (IT) company. The context of the research will be a typical small IT company. The case study on the practical implementation of the framework will be based on Southern Focus, a small IT services company in South Africa. Southern Focus is used in this research, only for the purpose of illustrating the application of the proposed planning process. Although the motivation for developing the framework is based on the urgency for such a framework in the fast growing field of IT, the framework is generic in nature and as such can be considered for other small companies in other fields. However, major distinctive features of other fields need to be taken into consideration when the application of the framework is considered. In general, the framework is valid for all small companies, particularly those that believe that competitive advantage can be derived from focus on core competencies. Based on preliminary investigations, we envisaged that the advantages of the size of the management team of a typical small company would be recognised. Applying techniques that facilitate systematic decision-making within a chosen strategy-development approach, should be valued.

The main goal of the research will be pursued through the following sub-goals:

- an investigation of the factors affecting the strategic planning process within small organisations. Included in this investigation, will be the analysis of unique features of small businesses in the IT industry;

- an investigation and analysis of suitable approaches to strategy development and their contribution to the strategic management process.   Included in this investigation, will be an analysis of other theories with the view of finding those theories that can enhance the overall strategy development process;

- the development of a framework that will guide the strategy development process of a small IT company;

- the experimental application of the framework as an action research initiative to evaluate the potential for its contribution with regard to meeting the desired outcomes of a small IT company;

- drawing conclusions for improvements of the strategy development process within a small IT company.

1.3 Scope and Delimitations of the Research

The scope of the research will cover strategic planning for a typical small IT company going through the process of developing its strategy. Based on existing methods of strategic planning, combined with proven tools for enabling decision-making, a framework for strategy development for a small company will be suggested. The framework will present a guideline for strategy development within a small organisation. The results of the application of this framework will provide a blueprint for ongoing management and monitoring of the company's direction into the future.

The experimental application of the framework will be conducted within an IT company, Southern Focus, purely on the basis of the urgency of the requirement for such a framework within this fast growing field. Its application could be considered for other small companies operating in fields outside of the IT field.

1.4 Research Methodology

A useful triad for the justification of research (Robey, 1996:103) includes research aims, theoretical foundations and research methods. Research aims determine both the theoretical foundations and the research methods, whereas theoretical foundations determine the research methods (see Figure 1.1).
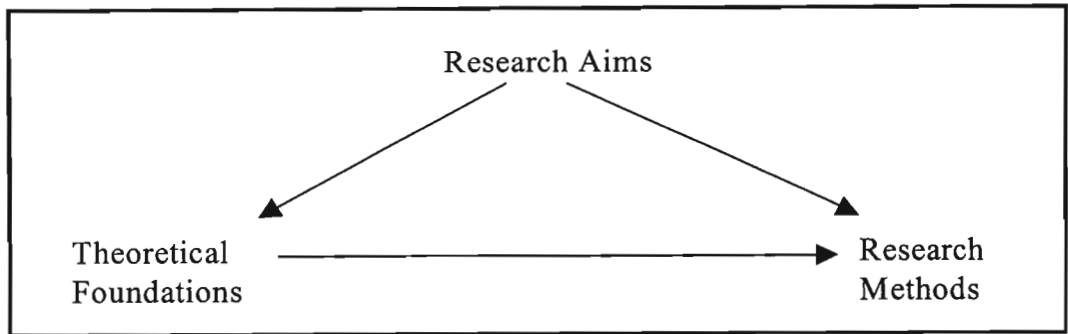
Figure 1.1 A Triad for the Justification of Research (adapted from Robey , 1996:103)

It has been suggested that the theoretical foundation of research is what distinguishes it from the realm of theoretical unfounded management consultancy (Jackson, 1995:31). The starting point in determining the appropriate research approaches, is the aims of the research as outlined in 1.2 above.

One of the sub-goals of this research is to conduct a detailed analysis of suitable approaches to strategy development and their contribution to the strategic management process. The theoretical foundations of this research are formulated on the basis of the literature analysis on the issue. In addition, the theoretical foundation is justified by an in-depth review of other decision-making theories. This is done with the view of determining their contribution towards the development of a framework for strategy development for a small company.

The aim of this research is to develop a framework for developing a strategy for a small IT company. According to Checkland and Holwell (1998:104) and Checkland (1981:201) the justification of the theoretical foundations and the research methods are very important for revealing the basic feature of the research. In deciding on the research method, the issue was whether a single approach could be applied to this problem or whether a combination of several approaches, or parts of them, should be applied. The research method applied in this research, is action research, because

of the direct involvement of the author with the company in which the framework was to be tested experimentally.

Action research can be described as a family of research methodologies that pursue action (or change) and research (or understanding) at the same time (Baskerville and Wood-Harper, 1996:239). In most of its forms it does this by using a cyclic or spiral process which alternates between action and critical reflection, and in the later cycles, continuously refining the methods, data and interpretation in the light of the understanding developed in the earlier cycles.

It is thus an emergent process that takes shape as understanding increases; it is an iterative process that converges towards a better understanding of what transpired. In most of its forms, it is participative (as change is usually easier to achieve when those affected by the change are involved) and qualitative.

The ideal domain of the action research method is revealed in three distinctive characteristics of the method (Baskerville and Wood-Harper, 1996:240):

- the researcher is actively involved, with the expected benefit for both the researcher and organisation;
- the knowledge obtained can be immediately applied. There is no sense of a detached observer, but that of an active participant wishing to utilise any new knowledge based on an explicit, clear conceptual framework; and
- the research is a cyclical process linking theory and practice.

For this study the action research method was applied at Southern Focus with the chief executive officer being the facilitator of the process of applying the strategy development framework. After a review of the literature on strategic planning, it was decided to operationalise the action research methodology through a combination of the Core Competence Approach (as a guideline for building a strategy based on developing

technologies and capabilities for competitive advantage) and selected techniques of Strategic Choice (facilitating incremental decision-making and managing uncertainties). The detailed justification of the chosen approaches for the framework is presented in Chapter 4. The results of the strategy development process at Southern Focus were for immediate application as there was an urgent need for developing the Company's strategy. The evaluation of the usefulness of the framework was solicited through a questionnaire completed by participants at the end of the strategy development process.

1.5   Significance of the Research

This research will investigate methods and techniques that can be generalised to assist small companies in the field of IT to effectively develop strategies based on repeatable processes towards developing cohesive strategies that will allow them to take advantage of the new opportunities whilst building sustainable businesses.

The aim of this research will therefore be to develop a framework for building a strategy that can influence the strategic management process in a small IT company.

The results of this research will also present a management support framework for those investing in small IT companies. At the same time, small IT companies can use the framework developed during this research as a basis for the development and ongoing review of their own strategies.

It is, therefore, anticipated that as a result of this research, the high rate of failure associated with small IT companies will be significantly reduced through the application of this strategy development framework.

1.6   Overview of the Structure of the Dissertation

This dissertation is structured in the following manner. The first Chapter is an introductory chapter articulating the goals of the research, its importance and justification. The second Chapter is an analysis of the IT environment in which Southern Focus operates. The third Chapter explores current research on strategic planning approaches. The fourth Chapter is an exploration of a suggested framework for developing a strategy aimed at influencing the management process in a small IT company. Chapter 5 is a case study on developing the strategy for Southern Focus. Chapter 6 focuses on evaluating the suggested framework and on the way forward.

CHAPTER 2

THE SMALL INFORMATION TECHNOLOGY COMPANY

2.1 Overview of the Strategic Management Process in Small to Medium Businesses

Small businesses have an important and growing role in the economy of South Africa. Statistical data from the National Small Business Regulatory Review showed that there are an estimated 302 000 micro and very small firms employing approximately 1,328,300 employees, 63,000 small enterprises employing 1.3 million people and 11,560 medium sized enterprises employing approximately 900,000 people in South Africa (Ntsika Agency, 1998:29). Thus, the role SMMEs play in terms of providing employment and boosting the economy within the South African context is significant and should be supported and encouraged. There are, however, many problems facing the SMME sector. Data provided by Ntsika Enterprise Agency suggest that two of the main problems facing SMMEs are a lack of management expertise (planning expertise being particularly deficient) and technology transfer (Bukula, 1998:55, Thomas, 1995:13).

This research aims to contribute to the area of management (strategy formulation specifically) by suggesting a strategy development framework for use by IT companies within the SMME sector. The emphasis of the research is placed on the SMME sector in the IT industry; firstly on the basis of the need for such companies to have a means for dealing with the amount of innovation and technological diversity currently being experienced within the industry, and secondly on a real-life requirement for a growth strategy for Southern Focus.

Small to medium enterprises have by definition from 50 to 200 employees (National Small Business Act, 102 of 1996). The relatively small number of employees (and consequently management staff) found within the micro enterprise business category, suggest that strategy formulation would be singular rather than collaborative, thus excluding the need for sophisticated

approaches to strategic management (Berry, 1998:459). Although strategy is important for all sizes of business, formalised strategy tends to be generated in business of the small to medium size (Berry, 1998:460). This dissertation illustrates the need for advanced strategic management approaches tailored for the needs of small companies within the IT sector.

One of the major threats to the small to medium enterprise's success, is the deficiency within the realm of planning, and especially strategic planning being the most overlooked (Murphy, 1996:113, Thomas, 1995:15). Research has identified that management effort within the small business is dominated by operating issues with little time and effort dedicated to strategy formulation or strategic management as a whole (Fogg, 1994:165). This is particularly problematic as it has been shown that strategic planning is important, if not essential, for successful long-term development in small to medium enterprises (Berry, 1998:462). Strategic planning has been statistically associated with performance enhancement, growth in turnover and attainment of corporate and profit objectives in small to medium enterprises (Peel and Bridge, 1998:850, Berry, 1998:457)

Considering the aim of this research, it is relevant to define strategy formulation within the small to medium enterprise and to contextualise it in terms of the process of strategic management. Thompson and Strickland (1995:3) define strategy formulation as "the entire direction setting management function of conceptualising an organisation's mission, setting performance objectives and crafting a strategy. The end product of strategy formulation is a strategic plan." Van Aart and Van Aart (1997:37) discuss strategic management in small business as a process consisting of three phases. The first phase is the strategy formulation phase, the second, the strategy implementation phase and finally the strategy evaluation phase. In the next Chapter a number of strategic planning approaches are investigated in greater detail, with the view of determining their potential contribution towards the strategic planning process of a small IT company.

Many small businesses claim not to have the planning expertise, the financial resources or the technological resources for strategic planning (Brouthers, Andriessen, and Nicolaes, 1998:135). This is particularly evident in the initial stages of business development. Berry (1998:458) claims that strategic planning should evolve as the business grows. Strategy formulation should thus follow a life cycle determined by the stages of growth of the small to medium enterprise. It has been cited that initially formal strategy formulation is inappropriate as management and financial resources do not allow for elaborate strategic management techniques. As the firm expands and stabilises, a progression towards strategic orientation and more formalised, sophisticated planning techniques must ensue in order to ensure the future survival and long-term success of the company. During later life-cycle stages (expansion and maturity), the importance of developing long-term objectives and strategies is increasingly emphasised. Strategy formulation should become more formal and explicit as the business grows, and should occur on a regular basis (Berry, 1998:458, Murphy, 1996:77). Thus, this research will be concerned with small to medium enterprises which could be grouped in the expansion or maturity stage of the stages of business growth model, as defined by Nolan and Gibson (1974:76) as strategy formulation becomes an appropriate activity for them.

Strategy formulation involves activities such as formulation of the business mission, analysis of internal and external environments, stakeholder analysis, organisational strength and weakness analysis, opportunities for growth establishment, definition of objectives and decision-making in terms of strategy choice (Mintzberg and Quinn, 1991:38). The strategy-formulation process must thus support and enable the above set of decision-related activities or objectives to be fulfilled. Venkatraman and Ramanujam (1987:690) suggest that the effectiveness of the strategy-formulation process must be measured according to how well the planning system helps the organisation fulfil the objectives of planning.

The strategy-formulation process has been described by researchers as primarily concerned with strategic decision-making (Brouthers, Andriessen, and Nicolaes, 1998:135). Many managers prefer to make strategic decisions based on intuition rather than on rational approaches. Insufficient internal and external data gathering often causes decisions to be made on irrational, intuitive foundations rather than representative data, leading to sub-optimal and often short-sighted decision-making and consequently strategy (Fogg, 1994:101). When a firm uses a rational approach (which includes a rational decision-making approach) to strategy formulation, it improves its chances of being successful in the market. (Brouthers, Andriessen, and Nicolaes, 1998:136). This assertion provides support for a strategy formulation framework for small to medium business.

Whilst recognising the need for a strategic planning framework for small to medium companies, there is even a more urgent need for such companies in the IT sector. It is interesting that IT companies that have created the centre stage for globalisation have at some stage in the recent past been small companies. Therefore, if IT continues to be the enabler of businesses into the future and has the potential to create new opportunities in the information age, there is every reason to encourage and support small companies in the IT sector. If the global trends in the recent past are nothing but the beginning of an evolution of digital economies, there certainly is no better time than now to start constructing frameworks for building sustainable future economies that will support the social imperatives that the world strives for.

To achieve this however, one needs to understand the challenges that small IT companies face and hopefully ring-fence some of the areas that prohibit the desired successes of these companies. Later in this Chapter, an assessment and analysis of a typical small IT company is conducted. This assessment highlights the need for a specific strategy development framework for a small IT company.

This brief overview of the strategic management process illustrates the importance of strategy formulation for small to medium enterprise success. Also included, are the components and activities necessary to complete the process, when the process becomes applicable to small business. This constitutes an effective process. It also highlights even greater challenges that are faced by small to medium companies in the IT sector and finally provides a case for a framework for assisting management during the strategic planning process of a small IT company.

2.2   Defining a Small Business and its Characteristics

According to the South African National Business Act 102 of 1996, Small, Micro and Medium Enterprises (SMMEs), in the industries of Finance and Business services are defined as:

Size or Class	Total full-time equivalent of paid employees *Less than:*	Total annual turnover *Less than:*	Total gross asset value (fixed property excluded)
Medium	100	R 20.00 m	R 4.00 m
Small	50	R 10.00 m	R 2.00 m
Very Small	10	R 2.00 m	R 0.40 m
Micro	5	R 0.15 m	R 0.10 m

The IT industry will be classified under the Finance and Business Services category. Any organisation outside these classifications will naturally be referred to as a large organisation. This dissertation focuses on the group of companies refered to as SMMEs as per the National Business Act 102 of 1996.

According to Duhaime (2001:110), a typical strategic framework applicable to large organisations is equally applicable to small organisations. She emphasises, however, that for small companies, the process needs to recognise the high levels of vulnerability that characterise small

organisations as compared to larger ones. At the same time, there are advantages that are inherent in small organisations, which should be borne in mind during the overall strategic management process.

Based on this view, one can conclude that the sustainability of a small company will be dependant on its management's ability to manage its strategy, particularly those elements of the strategy that could have a significant impact on its financial resources. If one considers the amount of activity and innovation seen worldwide in the IT sector over the past decade, and the demise of a number of innovative small IT companies, there is clearly a need for a structured approach towards ensuring sustained survival of small companies in this industry.

A large company can survive after unsuccessfully pursuing a strategic direction. For a small company on the other hand, unless it has access to sufficient financial resources, this could mean the end of its existence. Therefore, access and management of financial resources in a small company are key elements in the strategic management process and will require different management focus as compared to larger companies, particularly in the phase of growth currently experienced by the IT industry.

The other unique characteristic of a small company that should be borne in mind in the strategy development framework, is its ability to respond quickly to a changing operating environment. This is a unique advantage and, as such, the process of regularly reviewing the strategy, should be built into the culture of a small organisation up to the point when it has a significant impact on the financial resources available for the process. Therefore, a small company requires a process to be put in place through which it reviews its strategy on a regular basis to allow for it to adjust based on prevailing market conditions.

Accordingly, a typical framework for building a strategy should be equally relevant in the context of a small organisation. Any credible methodology for building a strategy should therefore still be valid for a small company,

except that stronger emphasis should be placed on the application of techniques that will allow it to make informed decisions and manage issues in a systematic manner. At the same time, the entire strategy should be reviewed on a regular basis to ensure that the company is at all times relevant in the operating environment within which it exists. Specifically for the IT industry, it may be necessary for the company to add to, alter or sometimes discontinue its product offerings as a result of prevailing market trends.

2.3   General Characteristics of the Information Technology (IT) sector

It is acknowledged that there is not a single IT industry but a range of industries commonly referred to as the IT industry and in some circles referred to as the Information and Communications Technology (ICT) industry.

According to Berry (1998:453), the Organisation for Economic Cooperation and Development (OECD) defines the ICT sector as, "The industries that produce the products (goods and services) that support the electronic display, processing, storage, and transmission of information."

For the purpose of this dissertation this definition is taken as being comprehensive enough to cover the ICT sector in its entirety. The major industries comprising the ICT sector are generally acknowledged as including:

Manufacturing and Sales

- Computer Hardware ;

- Telecommunications Equipment

Services

- IT Professional Services (including custom software application development and maintenance);

- Computer Software (packaged software products – cross industry and vertical market applications);

- Telecommunications Service.

For the purpose of this dissertation, the strategic framework being developed, will focus on a small IT company in the services industry, specifically providing professional IT services, including custom development, integration and maintenance of software applications. As pointed out earlier, the framework developed for this industry may be applicable to other industries. However, differences exist amongst the above highlighted industries and, as such, these differences may require significant changes to the approach used in this industry.

The IT professional services company's main assets are its people. Its products are its people. The quality and relevance of the company's personnel skill levels reflect the intellectual capital that the company possesses.

Highlighted earlier in this Chapter, a key challenge for a small IT company is its vulnerability. In the context of a small IT organisation, the questions are whether the company can afford to source, grow and maintain the appropriate technologically-oriented skill levels to support its strategic objectives, and, whether the company can timeously adjust its strategy in response to a changing IT environment.

These are the questions that our desired strategic framework is to answer and they will form the basis for ensuring that the framework used for a small IT company addresses, amongst other things, the main issues that deal with vulnerability and the company's ability to respond to changing market demands.

According to Linch (1997:489), small resource capability and competence-driven organisations have to manage the fact that they do not have at their disposal vast resources as compared to larger companies by:

- employing consultants on a temporary basis for specific engagements;
- concentrating resources on particular tasks that are more likely to yield added value and competitive advantage; and
- offer superior service.

These are some of the strategies that can be employed by small IT companies. Although these strategies can be seen as good suggestions to dealing with survival challenges faced by small IT companies, the industry is too dynamic for them to be sufficient to ensure appropriate strategies, suitable for all IT companies, are implemented.

The next section contextualises some of the challenges faced by small IT companies by directing attention to a typical small IT company, Southern Focus, through an assessment of its innovation capabilities. The rationale for specifically focussing on innovation capabilities is based on an assumption that the nature of the innovativeness of the IT industry requires the players, particularly those with entrepreneurial elements to nurture their innovative capacity for sustained competitive advantage.

2.4 Assessment of Southern Focus's Innovation Capabilities

Southern Focus has been in operation for approximately four years. Since its formation, the Company has grown from operating on a regional level only (KwaZulu/Natal), to operating on a national level (South Africa). The services provided have primarily been on IT management consulting and information systems development. As a result of significant exposure to numerous systems development activities, the Company pursues a number of options aimed at giving it niche product offerings into the future. These product offerings are currently at different stages of development. It is anticipated that due to the fast changing market demands, these product offerings may end up being completely different to their original design by the time they reach the marketplace. Nevertheless, it is believed that through consistent innovation, these products or parts of them will allow the

Company to gain competitive advantage by responding quickly to market demands in the future.

At a high level, the Information Technology Management Consulting (ITMC) unit of Southern Focus works on developing and implementing IT strategies and outsourcing strategies for its clients. On the other hand, the Information Systems Development (ISD) unit works on custom development of commercial applications, primarily using Oracle and Microsoft technology platforms as the preferred applications development toolsets.

Due to the limited resources available within the Company, it primarily funds its R&D operations from income generated by projects it is engaged in. The management team, therefore, recognises that time to market for some of its R&D activities is crucial to the survival of the Company. In other words, although the financial resources are a limitation, R&D activities cannot be too drawn out and unfocused. R&D products need to reach the market within the quickest possible timeframes. It is for this reason, primarily that the management team of Southern Focus aspires for their strategic planning initiative to be as comprehensive as possible, whilst allowing for regular reviews to allow for adaptation as and when market conditions change.

In general, the management team of Southern Focus is in agreement that the Company's strategy should take a resource-based view as opposed to a product-market view. According to Burgelman et al. (1988:130), "the product-market view of strategy is primarily concerned with how the company competes with its products and services, whilst the resource-based view of strategy is concerned primarily with how the firm can secure the factors needed to create the core competencies and capabilities that form the basis for establishing and sustaining competitive advantage". These authors are of the view that strategy is inherently a function of the quantity and quality of the firm's capabilities. The Company believes that for it to gain sustainable competitive advantage in the future, it needs to take a resource-based view as its strategy, and as such, its strategy development

process has to be geared towards acquiring, developing and maintaining core competencies in areas perceived to have growth potential whilst allowing for ease of diversification based on market demands.

For the purpose of this dissertation, the Innovative Capabilities Audit Framework is used to assess Southern Focus's innovation capabilities in preparation for the strategic planning initiative and to assess its readiness to pursue a resource-based view in its strategy development process. Figure 2.1 illustrates the Innovative Capabilities Audit Framework – Business Unit Level.
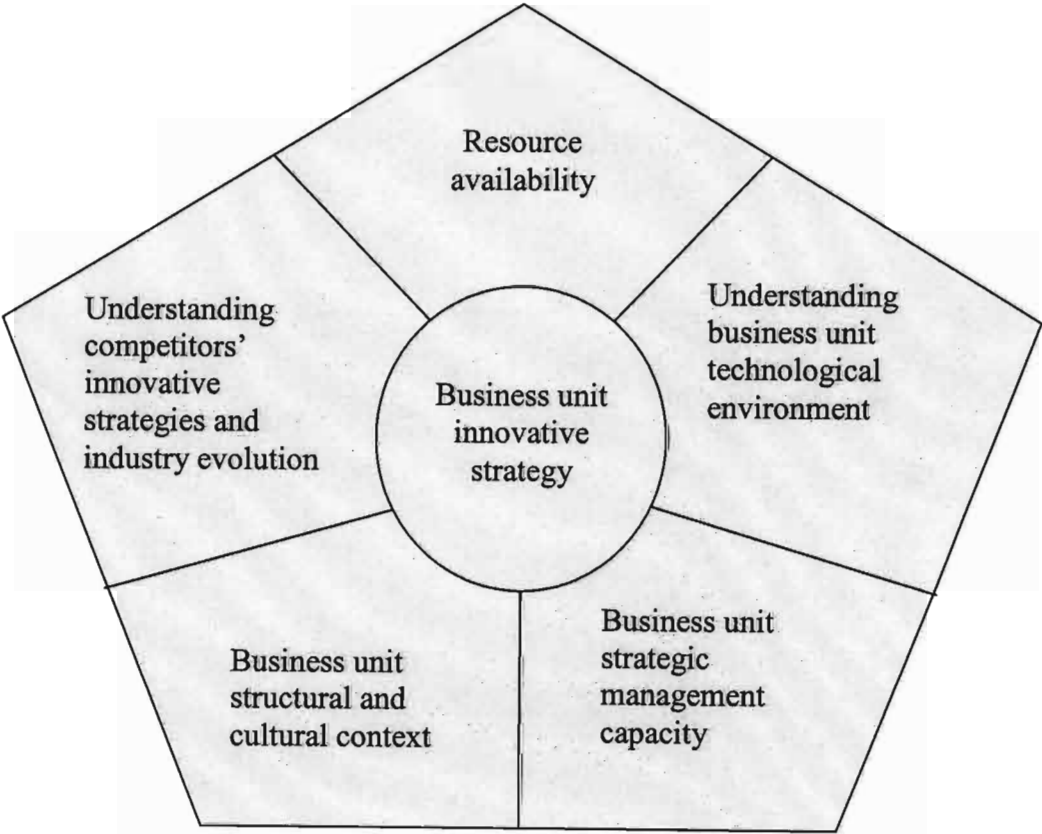
Figure 2.1 Innovative Capabilities Audit Framework – Business Unit Level (adapted from Burgelman et al., 1988:131)

Starting with the ITMC unit of Southern Focus, Table 2.1 details responses to the innovation capabilities assessment exercise for each of the five categories of the Innovative Capabilities Audit Framework in Figure 2.1.

Input to the audit exercise was sought from Southern Focus's management team. It was understood that management's views might be narrow and biased but they have a good understanding of the Company's resource availability and structural and cultural context.

The Innovative Capabilities Audit Framework, for a business unit highlights five categories of variables that influence the innovation strategies of a business regarding new products and services and/or new production and delivery systems in terms of:

- timing to market entry;
- technological leadership or followership;
- scope of innovativeness; and
- rate of innovativeness.

Table 2.1 Southern Focus's Responses to the Innovative Capabilities Audit – ITMC Business Unit

1. Resource Availability and Allocation
Level of R&D funding and evolution:
The Company funds its R&D activities from profits generated by projects across the Company. It spends approximately 5% of its revenue on R&D activities. Primarily this goes towards research and development of new methodologies and investigations on new service offerings in the consulting field.   *This investment is relatively low compared to main competitors but is deemed to be a step in the right direction considering that the main competitors in the regions of operation are predominately large multi-national companies with much larger financial resources for R&D.*
Breadth and depth of skills at business unit level in R&D and market research:
The skills assigned to R&D activities for this business unit are limited. Generally, the Company conducts these activities in line with a running project for a client, that is, consultants perform R&D functions as part of a client engagement.

Table 2.1 Southern Focus's Responses to the Innovative Capabilities Audit – ITMC Business Unit (continued...)

Distinctive competences in areas of technology relevant to business unit:
The areas of focus for this business unit are IT strategy and outsourcing strategy development and implementation. Primarily existing methodologies for undertaking such projects are customised for each engagement. The on-going challenge is that of maintaining the use of the existing methodologies due to the fact that most of the skills employed in this business unit are contract staff who bring on-board other methodologies to engagements.
Allocation of R&D to: - Existing product/market combinations;   - New product development for existing product categories; and   - Development of new product categories.   *In general R&D is performed as part of a project commissioned by the client. As a rule, methods used for a particular engagement are kept in the knowledge repository to allow for learning and customisation for other clients.*
2. Understanding Competitor's Innovative Strategies and Industry Evolution
Intelligence systems and data available: *This is driven by word of mouth and information from existing clients on competitors' proposals.*
Capacity to identify, analyse and predict competitors' innovative strategies: *None except for publicly available information.*
Capacity to identify, analyse and predict industry evolution: *Purely driven by market demands.*
Capacity to anticipate facilitating/impending external forces: *Purely driven by market demands.*
3. Understanding the Business Unit's Technological Environment
Capacity for technological forecasting: *Limited capacity. Main sources are Gartner Group, Meta Group seminars, etc. Also, presentations by multi-national consulting firms are used for this purpose.*

Table 2.1 Southern Focus's Responses to the Innovative Capabilities Audit – ITMC Business Unit (continued...)

Capacity to assess technologies relevant to business unit:
Generally, the assessment is done on a project-by-project basis.
Capacity to identify technological opportunities for business unit:
This is done on a project-by-project basis.
4. Business Unit Structural and Cultural Context
Mechanisms for managing R&D efforts:
Managed at budget allocation level.
Mechanisms for transferring technology from research to development:
Development is done when excess capacity is available from projects.
Mechanisms for integrating different functional groups in the new product development process:
Integration is considered when a client shows interest and is done as part of the project.
Mechanisms for funding unplanned new product initiatives:
None.
Mechanisms for eliciting new ideas from employees:
Not structured although it is encouraged.
Evaluation and reward systems for entrepreneurial behaviour:
Sales commission in place.
Dominant values and definition of success:
Predominantly, client satisfaction.

Table 2.1 Southern Focus's Responses to the Innovative Capabilities Audit – ITMC Business Unit (continued...)

5. Strategic management Capacity to Deal with Entrepreneurial Behaviour
Business unit level management capacity to define substantive development strategy:
Ad-hoc.
Business unit level management capacity to assess strategic importance of entrepreneurial initiatives:
Ad-hoc. Done on a project-by-project basis.
Business unit level management capacity to assess relatedness of entrepreneurial initiatives to core capabilities:
Not enforced. Often not considered. Projects assessed on profitability.
Capacity of business unit level management to coach product champions:
There is a personnel mentorship programme.
Quality and availability of product champions in the business unit:
Often stretched due to project commitments.

Based on the assessment of the ITMC business unit at Southern Focus, it is clear that the Company recognises and encourages innovation and entrepreneurship, but does not have systems in place and does not employ dedicated personnel to support the necessary process. Furthermore, the capabilities development process is more reactive then proactive, mainly as a result of competence building initiatives being largely driven on a project-by-project basis.

Table 2.2 shows the results of a similar assessment exercise conducted for the Information Systems Development (ISD) unit of Southern Focus.

Table 2.2 Southern Focus's Responses to the Innovative Capabilities Audit – ISD Business Unit

1. Resource Availability and Allocation
Level of R&D funding and evolution:
The Company funds its R&D activities from profits generated by projects across the Company. In general, no specific funding is allocated to R&D for this business unit, however applications development personnel are assigned to R&D activities when they are waiting to be assigned to other projects. In the case of the Maritime portal development however, the systems development part was funded from an external source.
Breadth and depth of skills at business unit level in R&D and market research:
The skills assigned to R&D activities for this business unit are limited. Typically, market research is informed by experiences from current projects and R&D is performed by unassigned staff.
Distinctive competences in areas of technology relevant to business unit:
The areas of focus for this business unit are within the areas of application systems development, primary using the Oracle and the Microsoft technologies as development platforms. Development methodologies in these areas are well established and a lot of re-useable code exists within the Company.
Allocation of R&D to: - Existing product/market combinations; - New product development for existing product categories; and - Development of new product categories.
There is no specific resource allocation to R&D but assembling existing code to create new products is done efficiently although there is often a learning curve due to the fact that resources are not entirely dedicated to the exercise.
2. Understanding Competitor's Innovative Strategies and Industry Evolution
Intelligence systems and data available:
Development technology suppliers generally provide market intelligence as part of their partnership programmes.
Capacity to identify, analyse and predict competitors' innovative strategies:
None except for publicly available information.

**Table 2.2 Southern Focus's Responses to the Innovative Capabilities Audit
– ISD Business Unit (continued...)**

Capacity to identify, analyse and predict industry evolution:
Purely driven by market demands.
Capacity to anticipate facilitating/impending external forces:
Purely driven by market demands and information through existing partnership programmes with technology suppliers.
3. Understanding the Business Unit's Technological Environment
Capacity for technological forecasting:
Limited capacity. Main sources are Gartner Group, Meta Group seminars. Also, presentations by multi-national consulting firms are used for this purpose.
Capacity to assess technologies relevant to business unit:
Mainly driven by market demands. For example, SAP is being considered for this business unit although the Company does not yet have the capacity to deliver SAP based systems.
Capacity to identify technological opportunities for business unit:
There is a specific focus on Oracle and Microsoft technologies, however other technologies are considered based on the size of the project and availability of contract personnel to undertake the development project.
4. Business Unit Structural and Cultural Context
Mechanisms for managing R&D efforts:
Managed at budget allocation level.
Mechanisms for transferring technology from research to development:
Development is done when excess capacity is available from projects. In the case of the Maritime portal a funding option was pursued for the development phase.
Mechanisms for integrating different functional groups in the new product development process:
Integration is considered when a client shows interest and is done as part of the project.

Table 2.2 Southern Focus's Responses to the Innovative Capabilities Audit – ISD Business Unit (continued...)

Mechanisms for funding unplanned new product initiatives:
None.
Mechanisms for eliciting new ideas from employees:
Not structured, but encouraged.
Evaluation and reward systems for entrepreneurial behaviour:
Sales commission in place and bonuses for delivery on time and budget.
Dominant values and definition of success:
Predominantly, client satisfaction.
5. Strategic management Capacity to Deal with Entrepreneurial Behaviour
Business unit level management capacity to define substantive development strategy:
Ad-hoc. This is primarily due to the fact that projects in this business unit generally take a long time to complete, i.e. minimum six months.
Business unit level management capacity to assess strategic importance of entrepreneurial initiatives:
Ad-hoc. Done on a project-by-project basis.
Business unit level management capacity to assess relatedness of entrepreneurial initiatives to core capabilities:
Not enforced. Often not considered. Projects assessed on profitability and use of latest technology.
Capacity of business unit level management to coach product champions:
There is a personnel mentorship programme.
Quality and availability of product champions in the business unit:
Often stretched due to project commitments.

For the ISD business unit at Southern Focus, the assessment indicates a need to streamline the approach towards R&D. In general, there is a drive to support innovation and entrepreneurship but there is no strategy or support structure to ensure and measure effectiveness of the initiative being undertaken by the Company. Furthermore, technology suppliers mainly provide market intelligence. As part of the strategy development process it may be necessary to consider other methods of gathering market intelligence based on management's view of the future.

Having completed the capabilities assessment exercise for the two business units at Southern Focus, the next step is to perform a corporate level assessment of capabilities. This assessment is aimed at assessing the Company's overall ability to identify and exploit synergies across all business units. The objective is to make an assessment at a corporate level of how the corporate innovation capabilities enhance the innovation capabilities at business unit level, thereby identifying opportunities for developing corporate-wide capabilities. For this exercise, the Innovative Capabilities Audit Framework – Corporate Level is used. Figure 2.2. illustrates the framework.

According to Burgelman et al. (1988:140), the corporate level innovative capabilities can be characterised in terms of:

- The scope and rate of development of new products and services and/or production and delivery systems that are derived from combining innovative capabilities across existing business units;
- The scope and rate of new business development based on corporate R&D and technology development efforts; and
- Timing of entry with respect to the above.

Based on the fact that the business unit audits of both the ITMC and the ISD units of Southern Focus revealed a consistent lack of strategy and support systems to ensure effective innovation within the Company, the responses for the corporate level assessment are noted at a macro level. Table 2.3 shows the responses to the corporate innovation capabilities audit at Southern Focus.
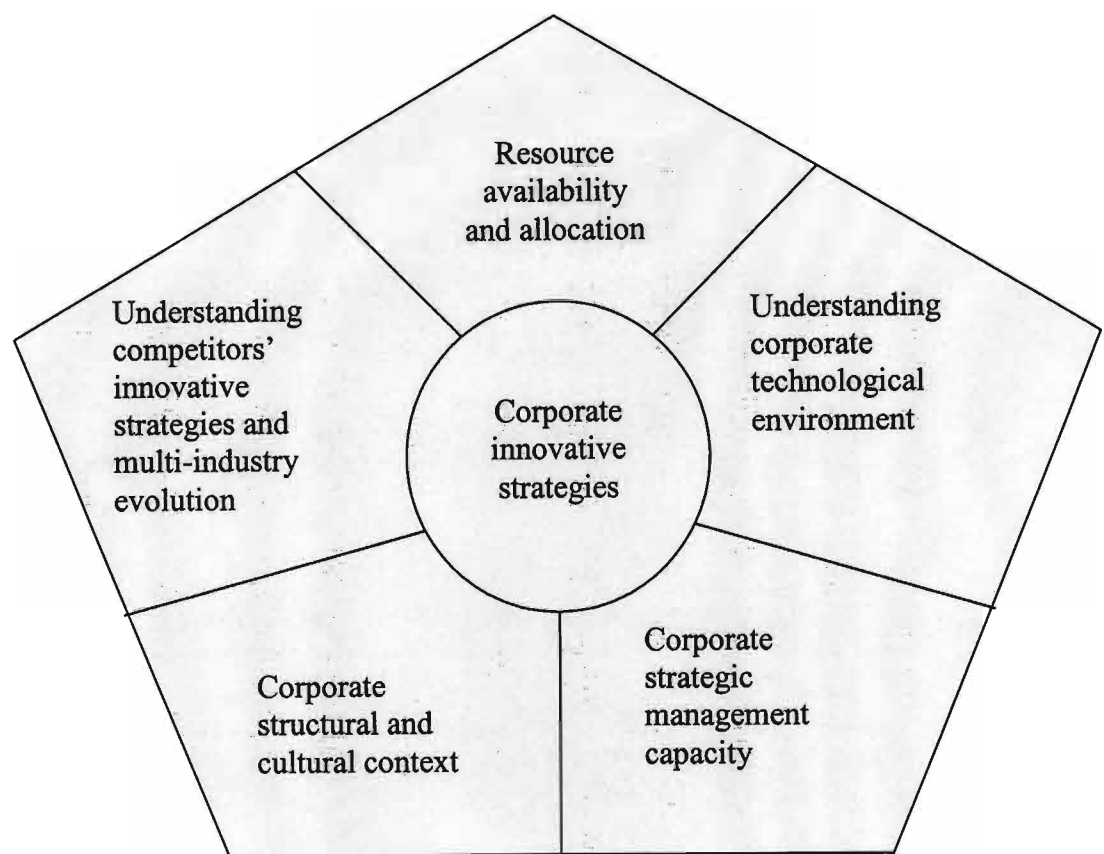
Figure 2.2 Innovative Capabilities Audit Framework – Corporate Level (adapted from Burgelman et. al, 1988:140)

Table 2.3 Southern Focus's Responses to the Innovative Capabilities Audit – Corporate level

1. Resource Availability and Allocation
In general, R&D across all business units is controlled at corporate level. In the case when this can be incorporated into a project environment, R&D becomes the responsibility of the project manager. It is planned that a corporate budget will be set aside in future, but currently no formal structure exists. One strategy that is being considered is that of all R&D requiring corporate attention be funded from external sources.
2. Understanding Competitor's Innovative Strategies and Multi-Industry Evolution
At corporate level, this understanding is acquired through participation of the management team in industry seminars, Computer Society, partnership programmes and competitor product launches and marketing campaigns.

Table 2.3 Southern Focus's Responses to the Innovative Capabilities Audit – Corporate level (continued...)

3. Understanding the Corporate Technological Environment
Limited capacity. Main sources are Gartner Group, Meta Group seminars, etc. Also, large multi-national's marketing campaigns are used for this purpose. Largely, corporate technological environments are determined by client demands. For example, involvement in a new technological environment is sometimes determined by the size of the opportunity.
4. Business Unit Structural and Cultural Context
The organisation has a flat structure with the cultural aspect being managed at business unit level. At this stage mainly administration and business development activities take place.
5. Strategic management Capacity to Deal with Entrepreneurial Behaviour
Ad-hoc.

Based on the fact that Southern Focus has a flat structure, where most of the innovation and decision-making takes place at business unit level, there is clear need (as highlighted in the corporate innovative capabilities audit) to put in place mechanisms to allow for taking advantage of synergies across business units. Some of the challenges currently facing management include demands by clients for the Company to undertake projects in which the Company has no prior experience. This is a common occurrence in the IT industry in general. Some organisations buy services on the basis of criteria such as culture, acceptability of the service provider and its ability to adapt to new environments, as opposed to the actual service. As a result, the challenge is to consolidate best practice and core competence development across the business units of the Company.

Also, client-driven innovation initiatives force the Company to be more reactive than proactive. This is partly as a result of limited financial resources within the Company. The challenge facing Southern Focus management, is that of maintaining reasonable focus towards capability

building whilst taking advantage of short-term opportunities for financial gain. Another notable challenge highlighted by the capabilities assessment exercise, is to introduce a system of gathering market intelligence and thus allowing management to have a common view of the shape of the industry. This would then enable management to build consensus on the quality and quantity of unique competencies required to meet current and future capability demands.

The innovative capabilities assessment conducted at Southern Focus identifies the reasons for the requirement of a strategic planning framework that would be best suited for a learning and innovation-seeking small company in the IT industry.

In the next Chapter, we explore some of the commonly used approaches and techniques of strategic planning. Based on the perspectives in this Chapter – which highlight the need for a different approach – the commonalities between small and large organisations will form the basis of identifying and applying generic approaches in building the strategic framework. The uniqueness of a small organisation, particularly in the IT industry will affect the choice of additional techniques towards the desired framework.

CHAPTER 3

INVESTIGATION INTO CURRENT RESEARCH ON STRATEGIC PLANNING APPROACHES

3.1   Introduction to the Strategic Management Process

In this Chapter, we investigate the different approaches to the strategic management process. Firstly, the strategy component is introduced in the context of the overall organisational perspective. Secondly, the need to understand and manage stakeholders in the strategic management process is recognised. Thirdly, some of the commonly used approaches for defining corporate strategy planning are explored in more detail. At the same time, other non-contemporary theories of strategic management are investigated with the view of finding their contribution to the strategic management process. These theories are the Soft Systems Methodology and the Strategic Choice Approach. Furthermore, the Core Competence Approach to strategy development is explored. Throughout, these approaches are analysed in the context of their relevance to the strategic management process of a small IT organisation, noting some of the challenges identified through the innovative capabilities assessment of Southern Focus, covered in Chapter 2. Finally, conclusions are drawn in order to set a stage for developing a framework for developing a management strategy for a small IT company.

The organisation's strategy could determine its viability (Quinn, 1988:214). Therefore, any organisation that does not have a clearly defined strategy has the task of formulating a strategy most appropriate for itself with the aim of ensuring its sustainability in its environment of operation. The reason why organisations find it important to consider going through the strategy formulation exercise is supported by the view that if organisations do not have strategic plans, "…they will become victims of the marketplace instead of being the victors who shape it." (Silbiger, 1993:307). Although this view is true for any size organisation, it is perhaps more applicable for small

organisations, purely because of the higher degree of vulnerability associated with smaller organisations.

It is important to note that the strategy cannot be formed in isolation as it is an integral part of the entire organisation (Silbiger, 1993:308). The Seven S Model, (Silbiger, 1993:308) highlights the degree of interconnectedness that strategy has with other parts of the organisations.

The Seven Ss are:
- Structure;
- Systems;
- Skills;
- Style;
- Staff;
- Superordinate Goals/Shared Values;
- Strategy.

Figure 3.1 depicts the Seven S Model. At a high level, the main components of the Seven S Model are:

Structure: The way the organisation is structured affects its strategic planning process and its ability to change.

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Strategy: Plans to respond or anticipation of changes in the organisation's external environment, customers and competitors.

Style: Style or Culture is the aggregate of behaviour, beliefs and symbols that is conveyed to people throughout an organisation over time.

The Seven S
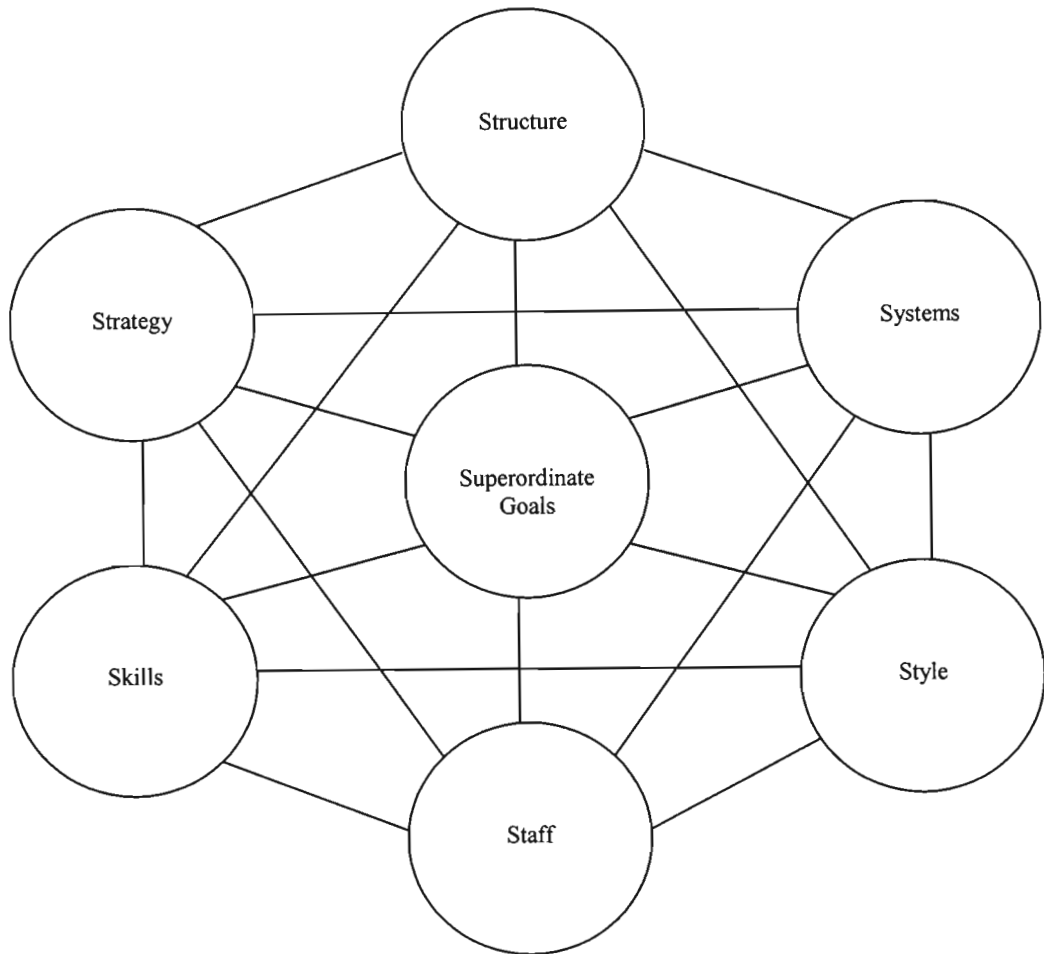
Figure 3.1 The Seven S Model (adapted from Silbiger, 1993:309)

Staff: The human resources systems, which includes appraisals, training, wages and the intangibles, such as employee motivation, morale and attitude.

Skills: The distinctive abilities and talents that an organisation possesses through its staff.

Systems: The procedures, both formal and informal, by which an organisation operates and gathers information.

Superordinate Goals: The guiding concepts – values and aspirations – the fundamental ideas around which the business is built.

Based on the Seven S Model, a "perfect" organisation is an organisation in which all the Ss complement each other and consistently advance the organisation's goal. Therefore, a strategy development process will have an impact on or be impacted on by the nature of the decisions made on all the Ss within an organisation. According to Berry (1998:460), the parts in a small company can vary in terms of sophistication depending on the stage of growth that the company is in. As highlighted in the assessment of Southern Focus in Chapter 2, the strategy part has become critical and the interconnectedness of the strategy to the other parts of the organisation, should be recognised.

Although the definition of "strategy" used in the Seven S Model, broadly explains the meaning, other definitions more specifically highlight the characteristics of a strategy, for example Johnson and Scholes (1999:37) say that,

> "Strategy is the *direction* and *scope* of an organisation over the *long term:* which achieves *advantage* for the organisation through its configuration of *resources* within a changing *environment,* to meet the needs of *markets* and to fulfil *stakeholder* expectations."

The definition above depicts the major characteristics of a strategy. These characteristics are borne in mind throughout this dissertation and are explored during the analysis of strategic management in the subsequent sections. Also, this definition is particularly relevant to a small IT organisation.

In this Chapter, we review a number of approaches currently being used to formulate strategies for organisations, bearing in mind the interconnectedness of the strategy to the rest of the organisation. At the

same time, these approaches are reviewed with the aim of identifying those approaches that are particularly relevant to the strategic management issues of small businesses, particularly those in the IT area. As highlighted in Chapter 2, there are great expectations on small businesses' contribution towards the global economy and even greater expectations on small business in high growth industries like the IT industry. As such, the aim will be to suggest a strategic management framework suitably tailored for the challenges facing the small IT company.

On completion of this review exercise, we should be in a position to choose the approach most suitable for developing a strategy for a small IT organisation.

Prior to proceeding with the process of developing the strategy, the first, and the most important issue to consider, is that of identifying parties with vested interest, or stakeholders. In the case of a small organisation, there may be fewer stakeholders as compared to a large organisation. However, even in this case, there will always be a number of stakeholders, and as such, it is imperative that their expectations are adequately considered as part of the strategy development process.

3.2 Managing Stakeholders within the Strategy Development Process

Before one can proceed with defining a strategy and its possible impact within an organisation, one needs to understand some ownership issues relating to the strategy. Ownership issue refers to the parties that have a vested interest in the organisation for whom the strategy is defined and implemented. By identifying the parties that have a vested interest in the strategy or identifying the stakeholders, one is then able to manage the expectations of these stakeholders and thus ensure that developed strategies are in line with expectations. According to (Banville et al., 1998:17), people are said to be stakeholders because they have vested interest in a problem in any of three different ways: (1) by mainly affecting it; (2) by being affected by it; or (3) by both affecting it and being affected by it. The recognition of all stakeholders within a strategy development process is

important as it makes decision-makers aware that there are other socio-political issues that might require dealing with as part of the overall strategy development process. Therefore, the identification of all stakeholders, as part of the company's strategy development process, should contribute to a better consideration of the socio-political dimension within the overall strategy development process.

According to Vroom (1974:70), there are three types of stakeholders, leading to different types of treatment depending on the classification. If the process is essentially autocratic (A type), stakeholders are most likely to be merely 'observed'. If the process is consultative (C type), some stakeholders will be consulted in some way but the decision remains that of the person(s) in charge of the problem. Finally the third type (G, as in group), the decision is made by the group of persons, normally a subset of stakeholders, assembled around the problem. For the purpose of this research, the G type, that is the management of the small IT company, is responsible for development of the company's strategy. However, the process has to recognise other stakeholders of type C, for example, the board of directors who might need to be consulted during the process or for final approval of work done by the strategy development team.

Another method of identifying stakeholders is that which is suggested by Savage *et al.* (1991:65) where stakeholders are broadly categorised as 'external stakeholders', 'corporate stakeholders' or 'organisational stakeholders'. Savage *et al.* (1991:65) use two strategic dimensions, that is, their potential for threat to the organisation and their potential for collaboration with the organisation. They propose four different classes of stakeholders: supportive, marginal, non-supportive and mixed blessings. For each class of stakeholder, they suggest a way that can be used to manage them, that is, involve, monitor, defend and collaborate. This is illustrated by Figure 3.2.

Stakeholder's potential
for threat to the organisation

	High	Low
High	Type 4 MIXED BLESSINGS Strategy: COLLABORATE	Type 1 SUPPORTIVE Strategy: INVOLVE
Low	Strategy: DEFEND NON-SUPPORTIVE Type 3	Strategy: MONITOR MARGINAL Type 2

Stakeholder's potential for cooperation with the organisation
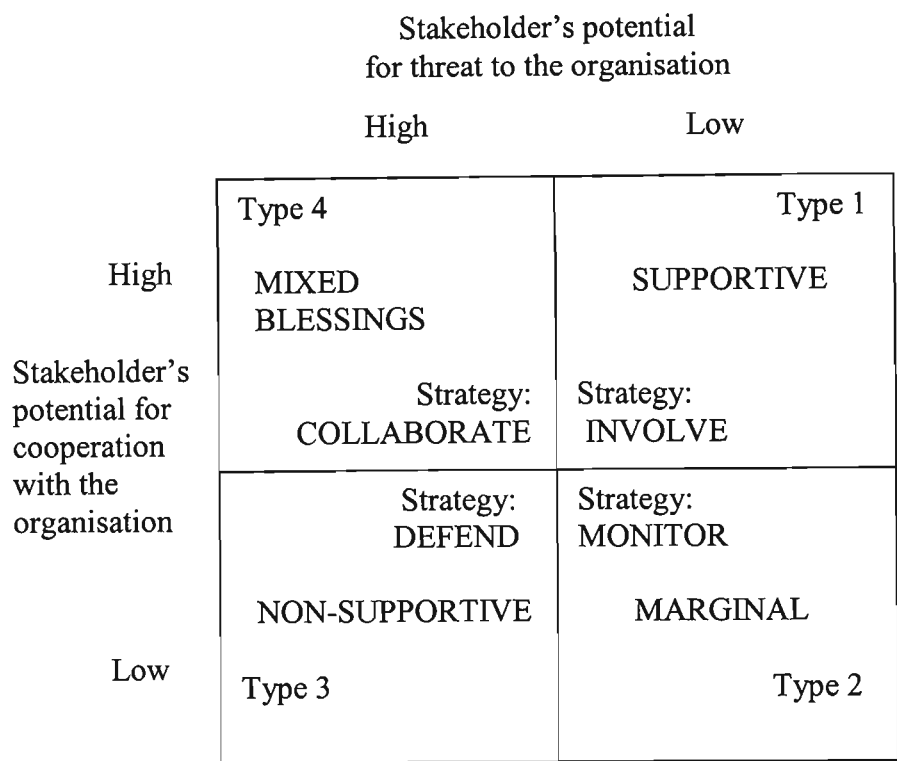
Figure 3.2 Typology of Stakeholders (adapted from Savage et al. 1991:66)

Another interesting view of stakeholder classification is that provided by Martin (1985:103), the seven Fs as illustrated in Figure 3.3. The *family* (F1) includes 'the people who see the issue as essential to their survival.' For *friends* (F2) the issue is important, but not essential to their survival. *Fellow-travellers* (F3) 'see the issue as desirable but neither essential or important'. *Fence-sitters* (F4) are neutral but could easily switch between factions. *Foes* (F5) 'are clever adversaries but can be open to collaboration or even ephemeral coalition on issues of mutual interest. It is best to consider foes as temporal, territorial and situational'. The faction of *fools* (F6) 'includes people with erroneous perceptions, inconsistent behaviour or fragile loyalty, who often unknowingly act against their own interest and are more dangerous by accident than by design'. *Fanatics* (F7) will do anything, including self-destruction to oppose the action(s) considered. In summary, F1, F2 and F3 are natural allies that should nevertheless not be taken for

granted; F4 and F5 are potential allies while F6 and F7 are 'blind resources' and both of these two can be circumstantial allies or enemies.

F1: family

F2: friends

F3: fellow-travellers

F4: fence-sitters or foreigners

vested interest positive

vested interest negative

close at hand

alliance potential

remote distant

F5: foes

F6: fools

F7: fanatics

•Use all 7F as a capacity base
•Natural allies: F1, F2 and F3
•Potential allies: F4 and F5
•Blind resources: F6 and F7
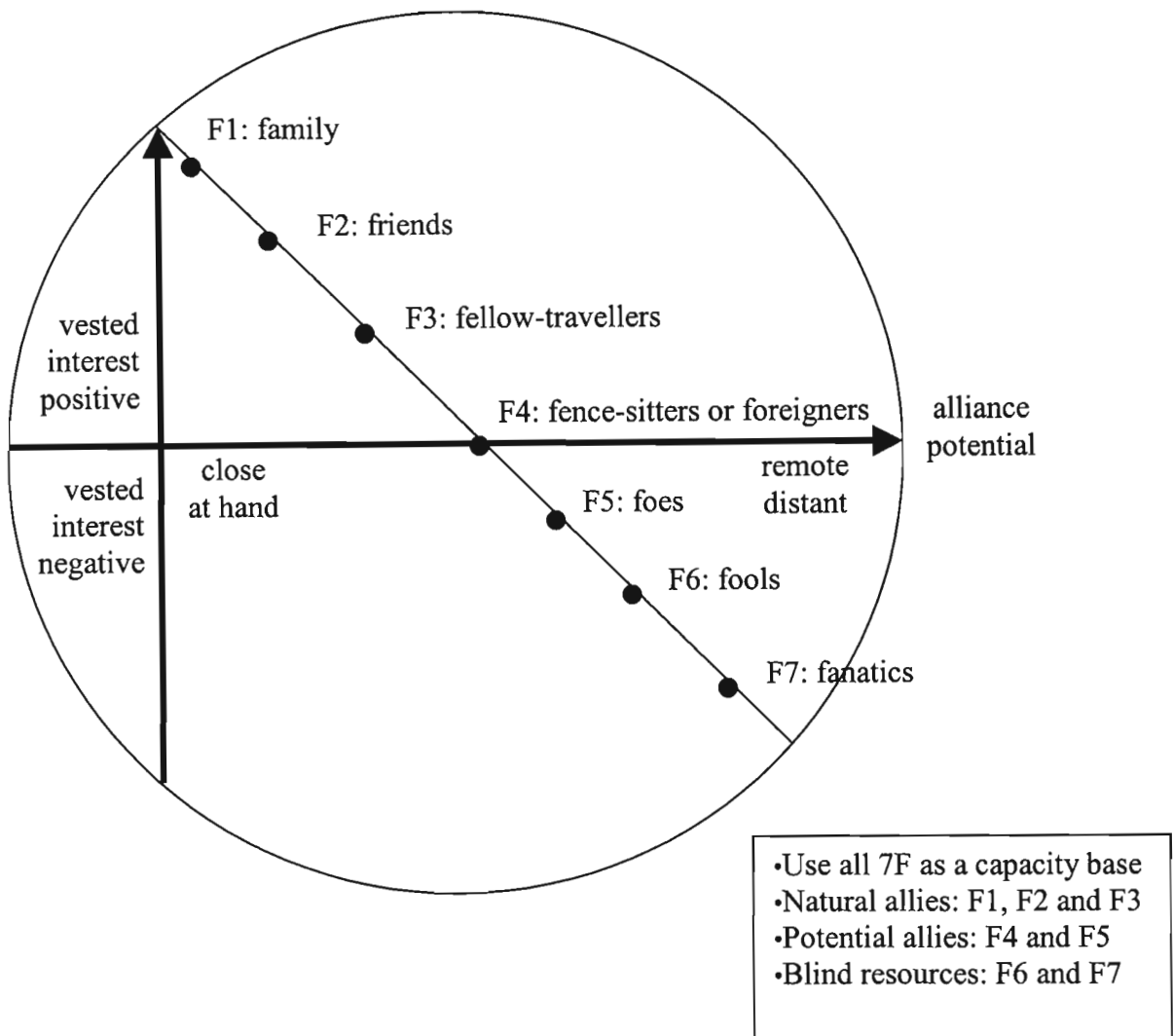
Figure 3.3   Martin's Classification of Stakeholders (adapted from Martin, 1985:103)

In the context of this dissertation, this model is useful for the implementation phase of the strategy development process. When different courses of action have been decided on by the strategy development team, that is, type G of Vroom's (1974:65) method of stakeholder classification; and type 1 of Savage et al. (1991:68), model of stakeholder classification, this model could be applied to each course of action to assess potential support for each action.

Using the term of the 'system of systems methodologies' of Flood and Jackson (1991:213), one can see that an approach to stakeholder management can be incorporated into the strategy development process to deal with complex socio-political situations. The issue of stakeholder management in this dissertation is relevant purely as a means of contextualising the basis for defining, implementing and managing the strategic planning process. Therefore, regardless of how well the stakeholders have been defined for the problem of defining the strategy, it is only if one knows which and how those stakeholders have been taken into consideration that one can reasonably put into context the ongoing review of the process.

3.3   Overview of Strategic Management Approaches

There are a number of approaches which address the issue of formulating strategies for organisations. In this Section, the relevance and applicability of some of the popular approaches, currently employed by organisations, is reviewed. Also, in this Section, investigation of the differences and similarities between linear approaches and cyclical approaches is conducted. Based on this investigation, one can extract certain elements on which there is sufficient consensus and incorporate them at a later stage when formulating the framework for developing a strategy for a small IT company. Elements on which there is insufficient consensus, will also be borne in mind at the stage of formulating the strategy development framework.

Linch (1997:17) sees three core areas in the corporate strategy process. He defines the three core areas as follows:

Strategic Analysis – The organisation, its mission and objectives have to be examined and analysed. Corporate strategy provides value for the people involved in the organisation – its *stakeholders* – but it is often the senior managers who develop the view of the organisation's overall objectives in the broadest possible terms. They conduct an examination of

the *objectives* and the organisation's *relationship with its environment.* They will also analyse the *resources* of the organisation.

Strategic Development – Strategy options have to be developed and then selected. To be successful, the strategy is likely to be built on the particular skills of the organisation and the special relationships that it has or can develop with those outside – suppliers, customers, distributors and government. For many organisations, this will mean developing advantages over competitors that are sustainable over time. There are usually many options available and one or more will be selected.

Strategy Implementation – The selected option is next to be implemented. There may be major difficulties in terms of motivation, power relationships, government negotiations, company acquisitions and many other matters. A strategy that cannot be implemented is not worth the paper it is written on.

Linch (1997:18) describes the practical nature of interlocking and overlapping of the core areas through Figure 3.2.
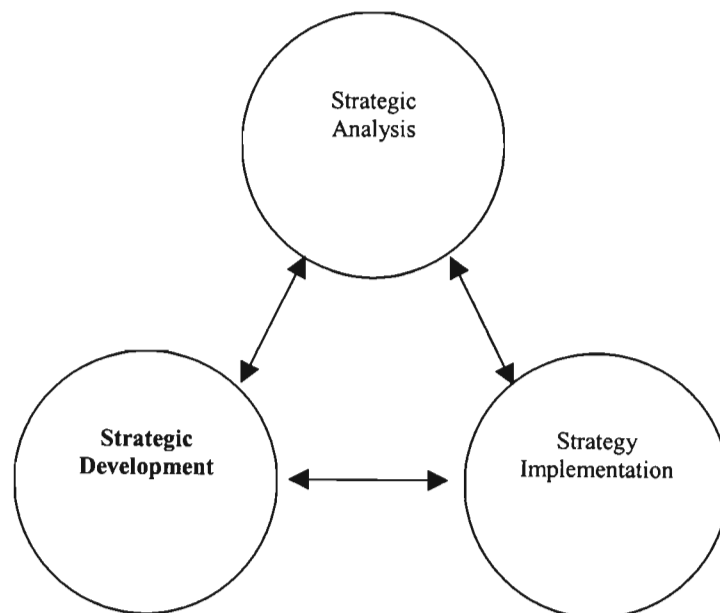
Figure 3.4 The Three Core Areas of Corporate Strategy (adapted from Linch, 1997:18)

As indicated in Figure 3.4, this approach highlights the cyclical nature of the strategic management process. It also highlights some major considerations within the different elements of the strategic management process. It is, however, at a high-level and does not provide for methods of conducting the actual strategy development process and, furthermore, does not provide techniques for dealing with an environment of a small company.

Another view on the strategy management process is that of Johnson and Scholes (1999:37). They offer three main areas of the strategic management process. Their model (see Figure 3.5) is similar to that used by Linch (1997:17).

```
                    ╭──────────╮
                   │  Strategic  │
                   │  Analysis   │
                    ╰──────────╯

     ╭──────────╮              ╭──────────╮
    │  Strategic  │ ◄────────► │  Strategy   │
    │   Choice    │            │Implementation│
     ╰──────────╯              ╰──────────╯
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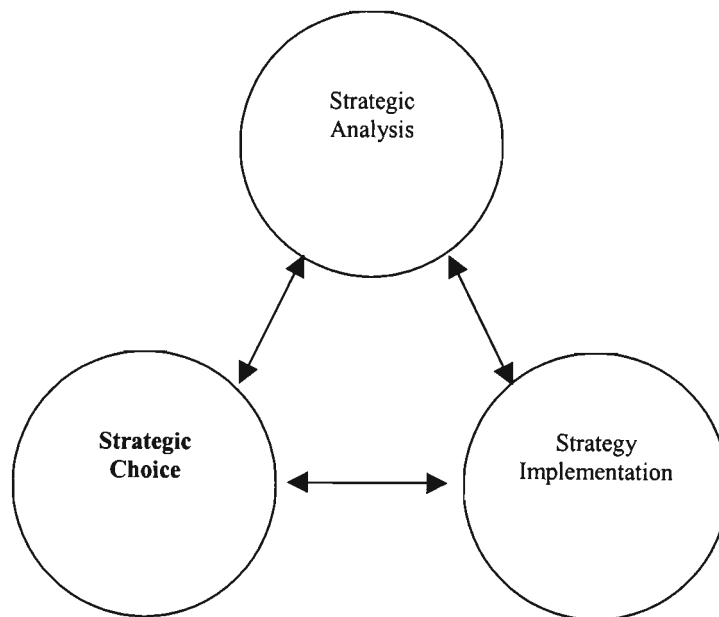
Figure 3.5 A basic model of the strategic management process (adapted from (Johnson and Scholes, 1999:39)

In their definition of the three main areas, they include:

Strategic Analysis – The strategist seeks to understand the strategic position of the organisation.

Strategic Choice – The formulation of possible courses of action, their evaluation and the choice between them.

Strategy Implementation – The planning of how the choice of strategy can be put into effect, and managing the changes required.

There is obvious consensus on the above strategic process approaches, although different terms are being used, that is, strategy development and strategic choice when referring to the process of defining, choosing and evaluating the desired strategy for the organisation. There is also consensus between the views as to the cyclical nature of the strategic management process.

The following tables highlight the similarities in elements and contents relating to the above views on the strategic management process.

Linch (1997:24):

ELEMENT	CONTENTS
Strategic Analysis	• Environment • Resources • Vision, mission and objectives
Strategic Development	• Options • Rational selection • Finding strategic route forward • Considering strategy, structure and style
Strategy Implementation	• Resource allocation, strategic planning and control • Organisational structure and people issues • Managing strategic change • Building a cohesive corporate strategy

Johnson and Scholes (1999:38):

ELEMENT	CONTENTS
Strategic Analysis	• The environment • Expectations and purpose • Resources, competence and capability
Strategic Choice	• Bases of strategic choice • Strategic options • Strategy evaluation and selection
Strategy Implementation	• Managing strategic change • Resource allocation and control • Organisation structure and design

Although there are close similarities in terms of the cyclical nature of the process and the contents of each of the elements between the above approaches, both approaches are at a very high level. They provide the guidelines for the strategy development process. However, they do not provide techniques for execution within a small company's strategy development process.

Another notable view on the strategic management process is that expressed by Robbins and De Cenzo (1998:82). Their model is linear in nature and sees the strategic management process as a series of nine sequential steps, namely to:

• Identify the organisation's current mission, objectives, and strategies;
• Analyse the environment;
• Identify opportunities and threats in the environment;
• Analyse the organisation's resources;
• Identify the organisation's strengths and weaknesses;

- Reassess the organisation's mission and objectives on the basis of its strengths, weaknesses, opportunities, and threats;
- Formulate strategies;
- Implement strategies; and
- Evaluate results.

Thompson and Strickland (1998:3), on the other hand, view the management process as involving five tasks:

- developing a strategic vision and business mission;
- setting objectives;
- crafting a strategy to achieve the objectives;
- implementing and executing the strategy;
- evaluating performance, reviewing new developments, and initiating corrective adjustments.

The views presented by Robbins and De Cenzo (1998:82), and those presented by Thompson and Strickland (1998:3), largely express a linear approach to the strategic management process. Within a small company, due to the size of the management team, the strategy development process has the environment to take a cyclical approach to process. Not withstanding the advantages of a cyclical approach within a small company, these approaches lack the methods and techniques for dealing with the context of a small company.

Based on the above analysis of the different approaches to the strategic management process, there seems to be a general agreement in terms of what needs to be considered in the process. The author submits that perhaps the differences are in the terminology and tactical approach towards reaching the common objective. There are differing views as to whether the strategic management process is of a cyclical or linear nature. Overall, however, these approaches on their own do not provide the

methods and techniques for dealing with peculiarities of small IT organisations.

Considering the parameters of this dissertation, we can conclude, therefore, that there is sufficient consensus that any of the above approaches provide the necessary fundamentals to serve as a basis for a framework for developing strategy for an organisation. However, if they were to be considered for a strategy development process within a small IT organisation, they would need to be supplemented by methods and techniques that recognise the context of a small organisation in the IT industry. Thompson and Strickland (1998:15), submit that it is important to ensure that the fundamentals of strategic management drive the whole approach to managing the strategy development process.

According to Johnson and Scholes (1999:38), the different elements of the strategic management process are interlinked and not sequential. Their view is that, in practice, strategic choice and strategy implementation may overlap and since strategic analysis should be on-going, it will overlap with the implementation of strategy. Moreover, their view is that the process of strategic management requires continuous testing and readjustment of the strategy, particularly if the environment is considered as a continually changing influence on the organisation. This view is simplified diagrammatically, as shown in Figure 3.6. In the specific case of the IT industry, as highlighted in Chapter 2, this diagram would indicate a much steeper line for the 'environmental change' than for most other industries over the same period of time. As a result, the strategic change exercise would require more frequent re-visits. This would ensure that the strategy pursued by the organisation in this industry, allows for it to adjust accordingly based on prevailing environmental changes. This is particularly important if the organisation is small, because its viability could depend on the strategy it pursues at any given point in time.

This view is also supported by Mintzberg (1987:80). In his opinion, the strategy emerges, adapts to human needs and continues to develop over time.

In attempting to clarify the different approaches to the strategic development process, Linch (1997:44) refers to the linear approaches as being, the prescriptive approach and the cyclical approaches as being, the emergent approach.

Change

.... Environmental change

———— Strategic change

Time
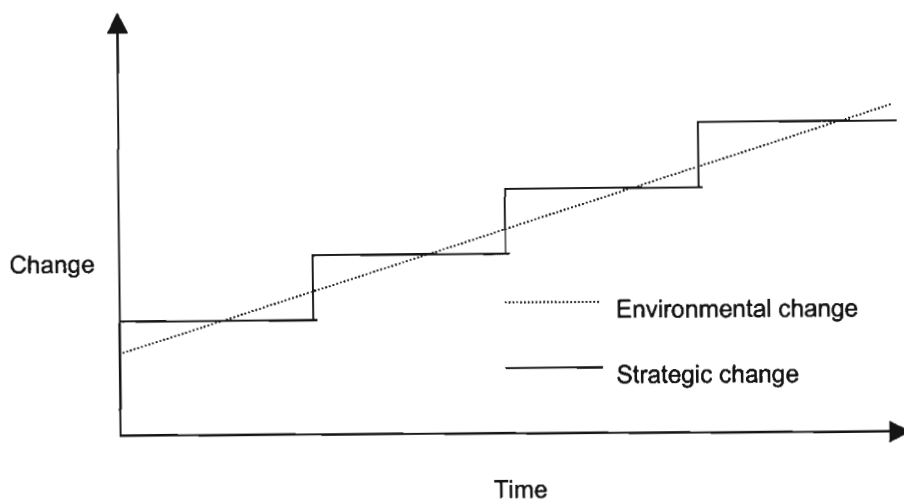
Figure 3.6 Incremental Change (adapted from (Johnson and Scholes, 1999:50)

3.3.1 *The Prescriptive Strategic Process*

This process is a strategy in which the objective has been defined in advance and the main elements have been developed before the commencement of the strategy.

The Prescriptive Strategy Process allows for the strategy to be adjusted if circumstances change significantly.

The Prescriptive Strategy Process is a somewhat linear process in the sense that after defining the objective, the process includes analysis of the environment, the development of strategic options

and the choice between them. The chosen strategy is then implemented.

According to Mintzberg (1987:96), this approach makes six major assumptions:

- The future can be predicted accurately enough to make rational discussion and choice realistic;
- It is possible and better to forgo the short-term benefit in order to obtain long-term good;
- The strategies proposed are, in practice, logical and capable of being managed in the way proposed;
- The Chief Executive has the knowledge and power to choose between options;
- After careful analysis, strategy decisions can be clearly specified, summarised and presented; they do not require further development, nor do they need to be altered because circumstances outside the company have changed;
- Implementation is a separate and distinctive phase that only comes after a strategy has been agreed on.

3.3.2 *The Emergent Strategic Process*

This is a process in which the final objective is unclear and the elements are developed during the course of its life, as the strategy proceeds.

The process is one of experimentation to find the most productive route forward.

Generally consistent with actual practice in organisations, it takes account of people issues such as motivation, it allows experimentation about the strategy to take place, it provides an

opportunity to include the culture and politics of the organisation, and it delivers flexibility to respond to market changes.

Figure 3.7 diagrammatically reflects the relationships between the elements of the strategic management process based on whether a prescriptive or emergent approach is taken.

(a) The prescriptive approach

Strategic Analysis → Strategic Development → Strategy Implementation

(b) The emergent approach

Strategic Analysis ↔ Strategic Development / Strategy Implementation
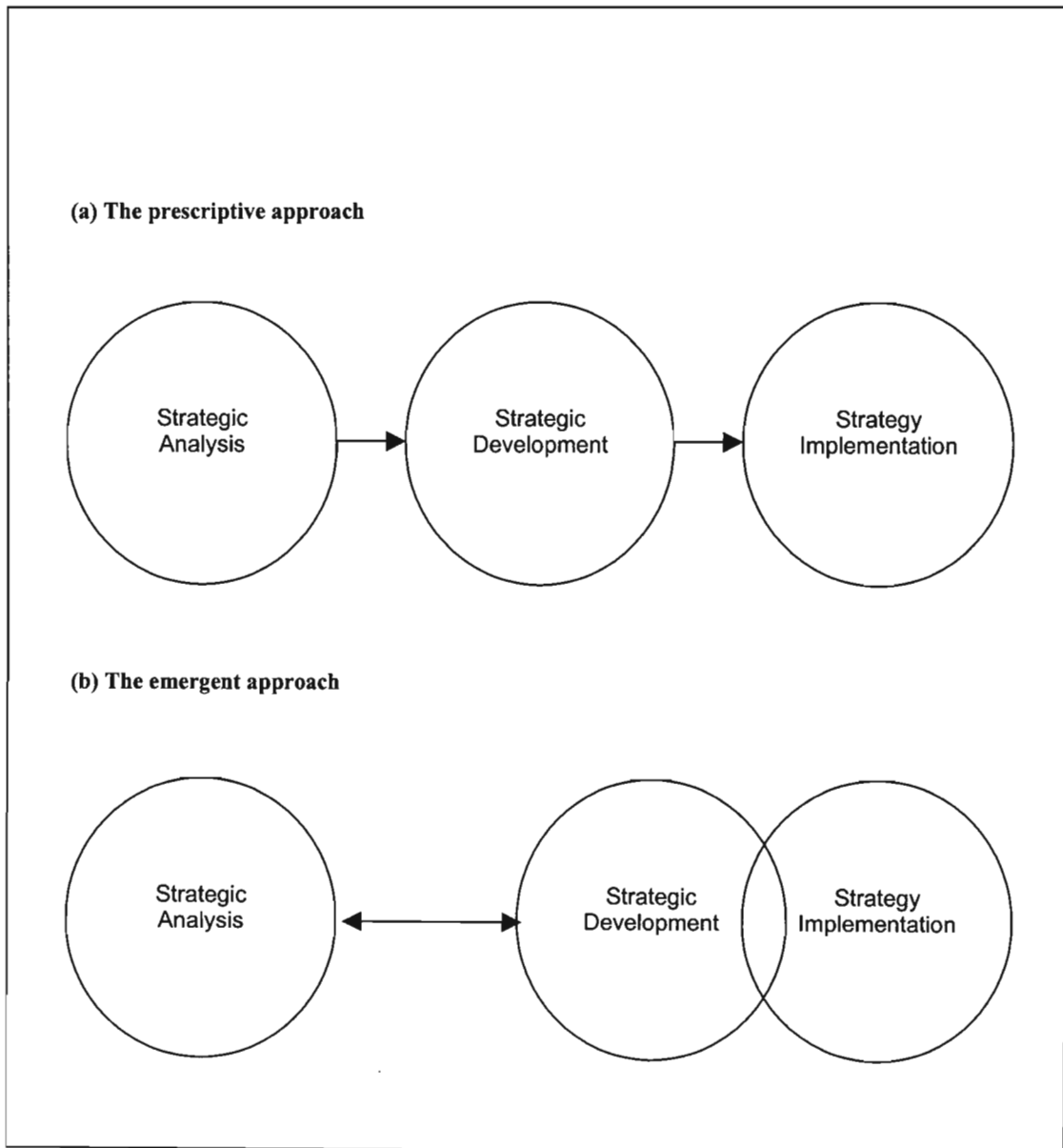
Figure 3.7 Prescriptive and Emergent Approaches to the Three Core Elements (adapted from Linch, 1997:39)

Mintzberg (1990:145), summarises the linear approaches as, "it appears at a point in time and is governed by a set of rules, fully formulated and ready

to implement." He refers to cyclical approaches as, "an emerging and changing strategy that survives by adapting as the environment itself changes." Based on this view, one would be biased towards a cyclical approach when considering an approach for a small IT company, since the strategy process requires flexibility and full adaptation mechanisms in its operating environment.

Another interesting view is "logical incrementalism" presented by Quinn (1988:231). He argues that strategy deals with "the unknowable, not the uncertain". According to this view, the strategy involves forces of great number, strength and combinatory powers that one cannot predict events in a probabilistic sense. Hence the strategy development process should proceed flexibly and experimentally from broad concepts towards specific commitments, making the latter concrete as late as possible in order to narrow the bands of uncertainty and to benefit from the best available information. This view somehow takes a different approach to other expressed in this Chapter. It sees the strategy-development process as being fragmented, evolutionary and intuitive. This view makes great sense particularly when dealing with strategies of innovation based companies. As highlighted in Chapter 2, decision-making processes in innovation-based companies require incremental commitments to allow for adaptation, should the need arise.

In concluding the argument of the validity of linear approaches versus cyclical approaches, we can see similarities in elements of the strategic management process. However, we have to take into consideration the dynamic nature of the operating environment and, at the same time, consider the need to monitor organisational imperatives when deciding on a strategic management approach. In the case of a small company, an emergent strategic approach becomes more relevant, as small companies are learning organisations and, as such, the strategy development process needs to allow for the learning process to take place. After all, it is a characteristic of a small company to have the inherent drive for experimentation and entrepreneurship throughout its strategic management

process. Specifically, for small companies in the IT industry, the need for regular cyclical approaches is unquestionable, particularly as the industry continues to experience unprecedented levels of innovation and turbulence globally.

Finally, all the investigated approaches to strategic management provide the necessary fundamentals to guide the process of strategy development. They, however, lack the methods and techniques to facilitate the process of developing a strategy, particularly for a small company in the IT industry. In such an environment, one also has to recognise one of its characteristics, that is, a learning organisation driven by the need for experimentation and entrepreneurship. As such, a cyclical approach to the strategic management process within a small company is more appropriate.

Based on the above analysis, we continue now to investigate the potential contribution of other theories within the strategic management process, with the view to identifying appropriate methods and techniques that can enhance the quality of the strategy development process, in the volatile IT industry.

3.4 Potential Contribution of Systems Thinking to the Strategic Management Process

Having explored some of the approaches to the strategic management process, in this Section, we have a closer look at systems thinking. Our aim is to find the appropriateness of systems thinking as a framework for the strategy development process and its potential contribution to enhancing the strategy development process through its methods and techniques.

According to Jackson (1991a:140), Soft Systems Thinking emerged as a result of dissatisfaction with the development and limitations of hard systems thinking. Jackson presents the basic ideas of Churchman's Social Systems Science, Ackoff's Social Systems Sciences, including Interactive Planning, Mason and Mitroff's Strategic Assumptions Surfacing and Testing

(SAST), and Vickers' notion of "appreciative system". As Jackson (1991a:142) points out, Vickers' social theory is not in itself interpretive but, is nevertheless, important as one of the starting points for Soft Systems Methodology (see Checkland,1981:187, Checkland,1995:50).

The original formulation of Soft Systems Methodology (SSM) was a seven stage methodology (Checkland, 1981:187). The essence of stages 1 and 2 is to find out what the problem is. That is summarized in a "rich picture" that expresses the features of the situation.

In stage 3 the root definitions are formulated by identifying six elements, which may be formulated as follows:

- Customers - the victims/beneficiaries of the purposeful activity;
- Actors - those who are involved in the activities;
- Transformation process - the purposeful activity transforming an input into an output;
- Weltanschauung - the view of the world that makes the root definition meaningful in context;
- Owners - who can stop the activity; and
- Environmental constraints.

In stage 4 the conceptual models that are built, are constructed by drawing out the minimum number of verbs that are necessary to describe the activities that would have to be present to carry out the tasks named in the root definition. In stage 5 the models are compared with reality. Thus, one can define likely changes that would have to be made in order for reality to better reflect the systems thinking contained in the models. Stage 6 involves the implementation of changes that are both desirable and feasible.

The above formulation of SSM is currently known as "mode 1" SSM (Checkland, 1995:51).

Mode 2 SSM was introduced as a two-stream inquiry in 1990: a logic-based stream of analysis and a stream of cultural analysis, including also social system analysis and political system analysis (Checkland and Scholes, 1990:210). Some interpreted this as a replacement of the original seven stage model in SSM mode 1. Others continued to use the seven stage model, especially in educational books (see Daellenbach, 1996:15). Checkland (1995:52) assumes that more sophisticated users would apply "mode 2" SSM as a way of making sense of real-world problem-solving activity.

In general, both SSM mode 1 and mode 2 can be useful to allow the working group to better understand the problem at hand. In the case of a strategic management process the incorporated methods and techniques can assist in facilitating consensus building as to the nature of the problem and thus allow for more effective decisions to be made.

Another approach that originally used the same philosophical base as the System of Systems Methodologies for its development, is Total Systems Intervention (TSI).

Total Systems Intervention

Total Systems Intervention original form, (known now as TSI (*version one*) according to Midgley (1997:125)), employs a three-phase process as originally defined by Flood and Jackson (1991:217):

- Creativity, in which metaphors are used to represent aspects of the organisational problem situation. To be appropriate for TSI, a problem should have the characteristics of a "mess", following Ackoff (1974:67). This phase involves idea generation (for example, brainstorming), image generation (metaphors), and reflective evaluation.

- Choice of the appropriate systems methodology for the particular problem situation. This choice is based on the strengths and weaknesses of a system methodology revealed through the analysis of its role in the System of Systems Methodologies. The methods are considered with regard to the four key dimensions of an organisation: organisational processes, structure, culture and politics.

- Implementation of the intervention using the chosen methodology which itself provides a feedback to the creativity phase.

TSI is systemic at two levels: At the level of individual methodologies that are used, since they are systemic on their own; and at the level of the meta-methodology, since it provides means to choose a suitable methodology during the Choice phase. It assumes that one can view different methodologies in a complementary manner but at the level of whole methodologies (see Mingers, 1997a:15). The latter can be seen as restrictive from a practical point of view. TSI (*version one*) is based on the same philosophical base as the System of Systems Methodologies. It assumes that it can operate above different paradigms.

It can be noted that probably TSI is over elaborated, a critique raised first by its authors (Flood and Jackson, 1991:220). Other criticism is related to the philosophical base of TSI and the System of Systems Methodologies, and comes mainly from the field of postmodernism. Ellis (1995:213) is of the opinion that, regarding the applicability of the approach on a wider scale as a consulting tool, this remains to be seen. The same author also reports that, even if the interventionist in using TSI is committed to social awareness and human emancipation, the realisation of these principles rests with the dominant group in the organisation (Ellis, 1995:213).

Mingers (1997b:428) provides serious criticism of several aspects of Total Systems Intervention. He raises the issue that the theory on which TSI is based, Habermas's theory of Knowledge Constitutive Interests (KCI), has

been criticised, and is no longer used by Habermas himself. This is recognised by Jackson (1997:87) as well. He raises as potential questions for future research, issues such as, "if TSI claims to stand 'above the paradigms' how can this claim be grounded?". In one of the early debates on TSI, it was pointed out that different paradigms constitute different realities and, as such, they provide answers, either explicitly or implicitly, to all three human interests in the KCI theory (Tsoukas, 1993:65). If it has to abandon this claim, does it mean that TSI constitutes a new paradigm in its own right (Jackson, 1997:3)? The latter idea is promoted, for example, by Midgley (1996:111). Another weakness indicated by Jackson (1997:370) is that TSI emphasises the use of "whole" methodologies. A significant weakness of TSI, according to Jackson (1997:370), a weakness that makes it untenable, is its complacency about being able to operate "above the paradigms".

A more recent version of TSI, which will be called here TSI *version two*, was developed by Flood (1995:230) in response to the previous criticisms to TSI. It includes, apart from the three phases within TSI (*version one*), also three modes into the process of problem solving (Flood, 1995:230):

- *Critical review mode* when relevant methods are evaluated for their potential to be used in a problem situation;
- *Problem solving mode* in which the three phases of TSI are present in a recursive form;
- *Critical reflection mode* which serves to reflect upon the intervention and the methods applied.

Flood (1995:190) has dropped the use of the System of Systems Methodologies as a basis for this second version of TSI, with the intention of making the latter closer to practising managers emphasising its orientation to consultancy work. This raises the issue of how critical TSI is in its emancipatory mission if it is considered by Flood (1995:190) to be a potent force for effective management (Mingers, 1997a:17). According to Jackson (1997:330), that work represents "ontological commitment to

'organisations as whole systems' consisting of interacting parts and with needs in the 'four key dimensions' of organisational processes, design, culture and politics. 'Organisations as systems' functionalism is reborn".

Postmodernism has also influenced the evolution of TSI. One indication of the influence of postmodernism is the suggested subsequent change of the name of TSI to Local Systemic Intervention, to stress the need for widely informed and locally relevant intervention (Flood, 1996:1).

Recently Jackson (1997:330), while favouring a development of TSI *version one* at the meta-methodological level, indicated that he would prefer to call it "critical systems practice" to underscore that this must be a research vehicle for critical systems thinking and not simply a consultants' charter (Jackson, 1997: 5). It can be concluded that the breakthrough achieved by TSI is to postulate a meta- methodology for using methodologies adhering to different paradigms in the same intervention on the same problem situation (Jackson, 1997: 3).

Based on the above, it can be concluded that systems thinking approaches assist stakeholders in getting a better understanding of the problem but not to the extent to be used as a strategy development framework tool for an organisation, since they lack focus in attention to the specific nature of strategic management. They assume, rather, that the decisions will emerge naturally in the discussion between the stakeholders. However, managers are often working under time constraints and, hence, it is worth it to explore more focused methodologies oriented towards the needs of strategic management.

The next Section investigates the contribution of the Strategic Choice Approach to the overall strategy development process. The rationale for this investigation is that, besides warranting consideration as a strategy development framework, it has sophisticated techniques for facilitating the decision-making processes.

3.5   Potential Contribution of the Strategic Choice Approach to the Strategy Development Process

There is a number of reasons why there is value in exploring the Strategic Choice Approach (Friend and Hickling, 1987:37). One of the reasons is its recognition of the need to manage uncertainties often associated with a complex decision-making process. Another reason is that it is not necessarily an approach for developing a strategy for an organisation but rather an approach for complex problem solving. It supports the view that the decision-making process is not a linear process but a process where the decision makers can move from one stage to another as and when necessary. The origins of the Strategic Choice Approach are in the areas of operational research, mathematics, social science, philosophy and management. It emerged through the experience of its authors, in relation to complex managerial interventions conducted by the Tavistock Institute in the United Kingdom.

The Strategic Choice Approach highlights the fact that the decision-making process is the ability to manage uncertainties, and classifies uncertainties into three categories. According to Friend and Hickling (1987:50), these categories are:

- *Uncertainties pertaining to the working Environment (UE)*

    This kind of uncertainty can be dealt with by responses of a relatively technical nature. These uncertainties are often as a result of a lack of knowledge about the circumstances and consequences of different ways forward.

- *Uncertainties pertaining to guiding Values (UV)*

    This kind of uncertainty calls for a more political response. These uncertainties are often as a result of a lack of clarity in the direction and thus conflicting objectives, priorities, interests, etc.

- *Uncertainties pertaining to Related decision fields (UR)*

This kind of uncertainty calls for a response in the form of exploration of the structural relationships between the decisions currently in view and other decisions with which it appears to be interconnected. These uncertainties are often as a result of a view by decision-makers that a decision cannot be made in isolation, as it has a dependency on other decisions not in the current decision area.
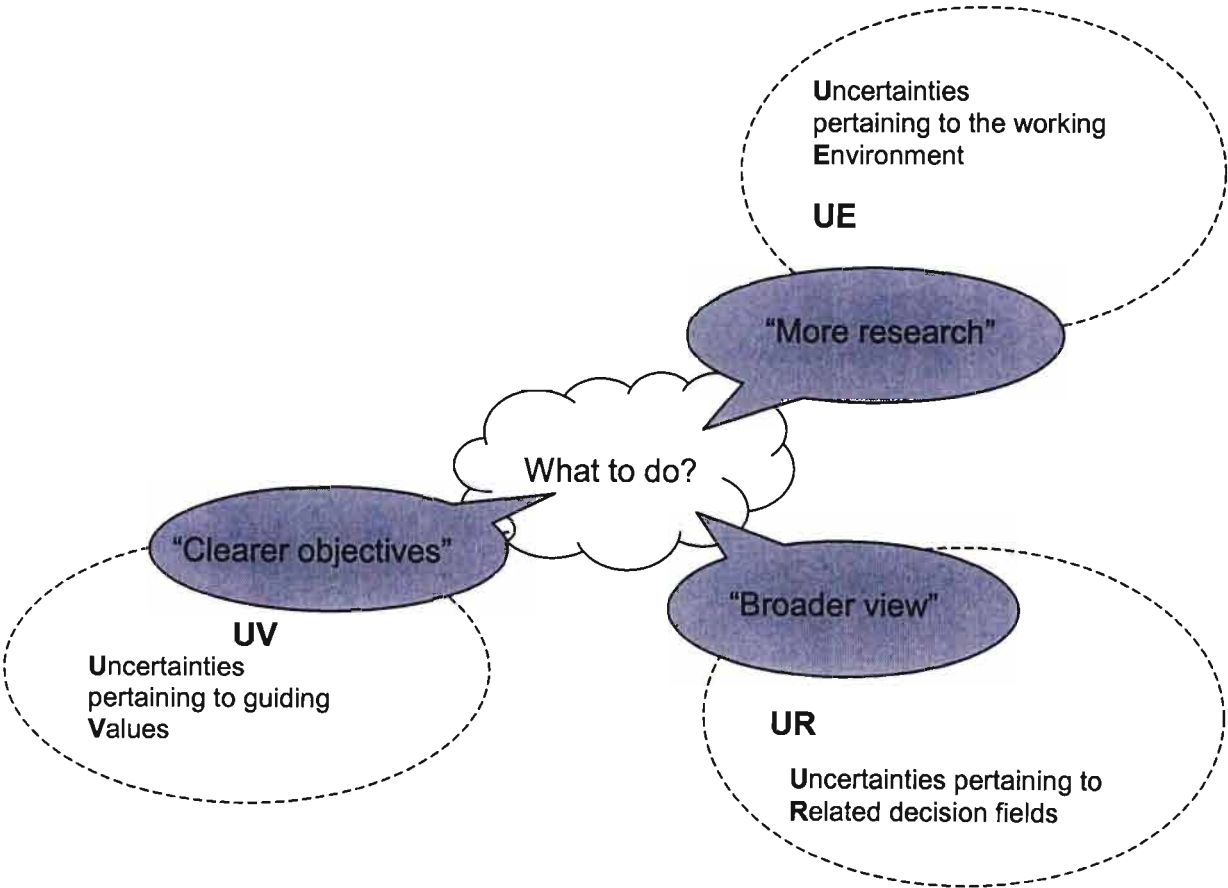
Figure 3.8 Three Types of Uncertainty (adapted from Rosenhead, 1989:124)

To illustrate how Strategic Choice handles uncertainties as a method of managing uncertainty during a decision-making process, Figure 3.8 shows the classifications of the different types of uncertainties and the appropriate actions that can be taken to resolve them.

In a sense, all the approaches that have been explored in this Chapter so far, deal with the decision-making process within what Friend and Hickling (1987:51) refer to as the UE category. Therefore, the potential contribution of the Strategic Choice Approach to the process of developing a strategy for an organisation, lies in that it recognises that this process should be done taking into account uncertainties outside the working environment for which the strategy is being developed. It highlights the fact that these uncertainties cannot be ignored as they may have an effect on the strategic planning process.

At the same time, it is important to note that the Strategic Choice Approach can further contribute through its techniques of managing uncertainties within the different phases or stages of any of the traditional models of strategic planning. Even at this level, it takes a cyclical approach through its modes of shaping, designing, comparing and choosing to manage, not only uncertainties pertaining to the working environment, but also uncertainties pertaining to guiding values and related fields for any complex decision-making process within any of the strategic planning approaches.

In a small company in the IT industry, uncertainty largely epitomises one of the major characteristics of its operating environment, from an internal as well as an external point of view. Therefore, there is significant value in considering at least the specific techniques of managing uncertainties as part of the toolset for the strategy development framework for an organisation under consideration.

Figure 3.9 illustrates the different modes of Strategic Choice and the cyclical nature of the decision-making process within it.

Within each of the modes of Strategic Choice, a number of techniques are applied to assist the decision-makers reach consensus on the desired objectives of each mode of the decision-making process. In the context of the framework for strategy development within a small IT company,

attention is drawn to these techniques for the purpose of this research. The specific techniques are covered in more detail in the next Chapter.

Problems   **Decisions**

Shaping Mode   **Choosing Mode**

Designing Mode   **Comparing Mode**
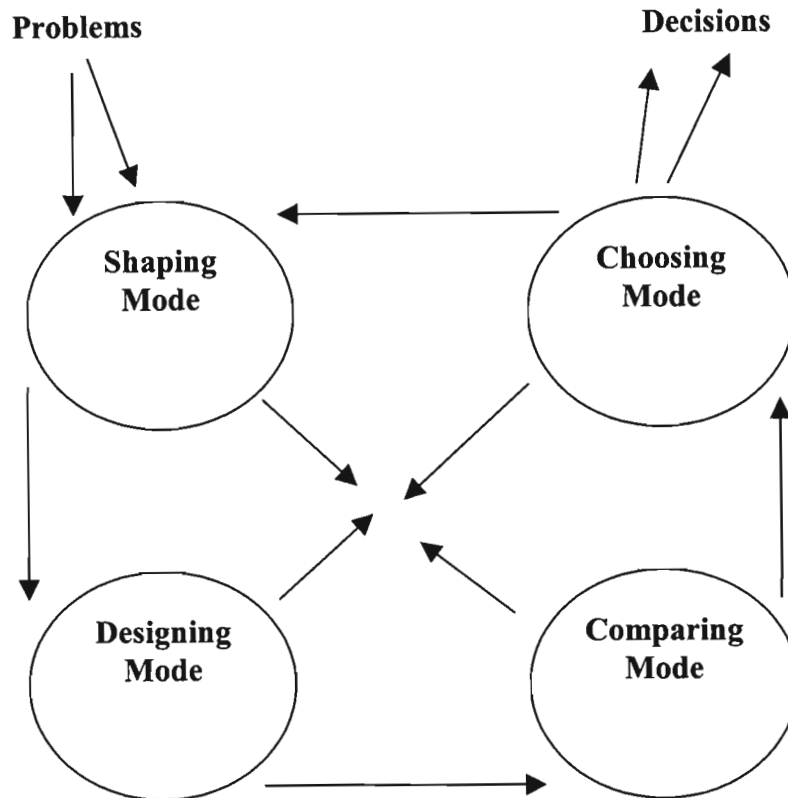
Figure 3.9 Four Modes of Strategic Choice (adapted from Rosenhead, 1989:127)

According to Fahey and Randall (2001:3), strategy is a synonym for choices. They argue that the sum of the choices that the organisation makes about where and how to commit its resources, determines whether the organisation wins in the marketplace – whether it can get and keep customers and out-perform rivals.

Based on this notion, one has to place significant value in the contribution of Strategic Choice in the overall context of strategic management. Fahey and Randall (2001:5), further argue that the choices made by the organisation, are influenced by its understanding of current and potential change and the capacity to anticipate, create and leverage change.

Strategic Choice techniques can be used during the strategic formulation process to assist managers to understand:

- what levers the organisation can manipulate to make change work to their advantage;
- once they learn to pull the right levers, how they can continue to improve their performance; and
- how they can continuously exploit change for superior performance.

Fahey and Randall (2001:9), further view strategy as creating or leveraging change in three related ways:

- ***Scope:*** Through the choice of products or solutions a firm offers, and the customers it seeks to serve, an organisation determines the scope of its strategy. Thus, the organisation has to determine (1) the kind of service it wants to offer; (2) the customers to whom it wants to offer this service; and (3) the geographic regions on which it is going to concentrate.

- ***Posture:*** How aggressively a firm competes in its chosen businesses, or product-customer segments, to attract, win and retain customers establishes the posture of its strategy. So, the question that arises, is, "how will the organisation differentiate its offerings?"

- ***Goals:*** The choice of what attainment a firm will pursue, sets the goals of its strategy. That is, "what results is the organisation aiming for?"

Based on this view, one can anticipate that the success of an organisation's strategy will be dependent on the quality of the choices that the organisation makes throughout the strategy formulation process.

According to (Friend and Hickling, 1987:51), the most distinctive feature of this approach, is the way it helps users in making incremental progress towards decisions by focussing their attention on alternative ways of managing uncertainty. It combines a concern for complexity with an emphasis on real-time decision-making. Jackson (1991a:140) expresses a critical opinion in that soft operational research approaches, including Strategic Choice, do not have a coherent philosophical base and justification. However, the evidence presented in Friend and Hickling (1987:51) shows that soft operational research approaches, in fact, work in practice and hence further investigation into the sources of success of the Strategic Choice Approach might be appropriate.

Therefore, as one goes through the process of developing a strategy, regardless of the strategic planning model, the decision-making process can further apply the Strategic Choice framework and techniques to enhance this process. This can be done by addressing interconnected organisational problems in a strategic manner. However, based on the above exploration of the Strategic Choice Approach, it can be concluded that it is good as an approach to allow stakeholders to make informed decisions and to manage uncertainties in a systematic manner. However, it is not good enough to assist as a strategy development framework for an organisation, since it lacks focus on the strategy development process. Its techniques could serve as valuable tools within a more focused approach to strategy development though (see the one explored in the next Section). In addition, these techniques allow for dealing with the peculiarities of the environment within which a typical small IT company operates, that is, the importance of managing uncertainty, the need to recognise the interconnectedness of decision-making areas, the need to comprehensively explore alternative courses of action and the need to create a dynamic environment that would allow for continuous experimentation.

3.6 The Core Competence Approach to Strategy Development

Having explored a number of conventional approaches to strategy development, one can see that most of them provide for a generic framework that allows for the strategy development teams to pay attention to the key components of the company's strategy. Most of them are generic and are applicable to any size of organisation. The Core Competence Approach, on the other hand, takes the line that there may be limited, but highly valued, resources within an organisation and as such, aims at unlocking the value in such resources to give the company the competitive advantage it requires. This approach is ideal as a strategy development framework for a small knowledge-based company, as these companies often have limited resources, skills and technologies to take to the market. However, if the skills and technologies can be consolidated and market offerings be focused around the key competencies that the company possesses or can develop, the company can make significant strides towards developing market leadership around these competencies.

According to Prahalad and Hamel (1990:80), "The real sources of advantage are to be found in the management's ability to consolidate corporate-wide technologies and production skills into competencies that empower individual businesses to adapt quickly to changing opportunities." They also argue that, "Outsourcing can provide a shortcut to a more competitive product, but it typically contributes little to building the people-embodied skills that are needed to sustain product leadership. Nor is it possible for a company to have an intelligent alliance or sourcing strategy if it has not made a choice about where it will build competence leadership."

Based on the above view, the contribution of another approach worth exploring as a framework for the strategic management process, is the Core Competence Approach to strategy-making. This may be particularly relevant considering that the strategy framework being developed is for a

knowledge-based organisation. Unlike most approaches to the strategic management process, this approach is geared towards knowledge-based organisations. In addition, it recognises the need to deal with the scarcity of leading-edge skills as associated with the IT industry.

Winter (1987:132) equates knowledge and competence with strategic assets. According to Mosakowski (1998:630), although research on the resource-based view of strategy argues the firms' internal resources determine their competitive outcomes, there are other movements within this stream that stress competence-based competition (Hamel and Heene 1994:212). Mosakowski (1998:630) highlights, however that what is common throughout is the emphasis on knowledge-based resources. One of the views presented by Dyer and Singh (1998:665), is that competitive advantage arises from the ability to accumulate resources and capabilities that are rare, valuable, non-substitutable and difficult to maintain. According to Miller and Shamsie (1996:530), these resources could either be property-based or knowledge-based.

For the purpose of this dissertation, the interest is in knowledge-based resources and, as such, find the Core Competence Approach most suitable for the process of developing the strategy framework for a knowledge-based organisation. Andreu and Ciborra's (1996:118) view, that resources used in context, can develop into core competence or capabilities that can differentiate further, justifies a closer look at the Core Competence Approach as an approach for the strategic management process. McKelvey and Aldrich (1983:112), view distinctive competence as "the combined workplace (technological) and organizational knowledge and skills that together are most salient in determining the ability of an organization to survive" (p.112). Others, like Nelson and Winter (1982:116), use the concept of "routines," which they believe play a similar role to genes in biological evolution. Burgelman (1994:29) states that research has found strong inertial forces associated with distinctive technical competencies, but maintains that strong technological competencies are likely to generate innovation.

The Core Competence Approach to strategy making was developed by Prahalad and Hamel (1990:80) who, define the core competencies to be "the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies". Their view is that the strategy making process is an innovative and a discovery process that seeks to create the shape of future markets and industries by anticipating customer needs and leveraging resources to provide unique value to customers. The Core Competence Approach to strategy making requires management's ability to challenge existing business and industry models by allowing diversity of opinion and perspectives, willingness to suspend judgment, and openness to new ideas. These authors provide three criteria for identifying a firm's core competence. A core competence should:

- provide potential access to a wide variety of markets;
- make significant contribution to the perceived customer benefits of the end product; and
- be difficult for competitors to imitate.

Their view of the strategy-making process sees four interlinked components, illustrated in Figure 3.10 below:
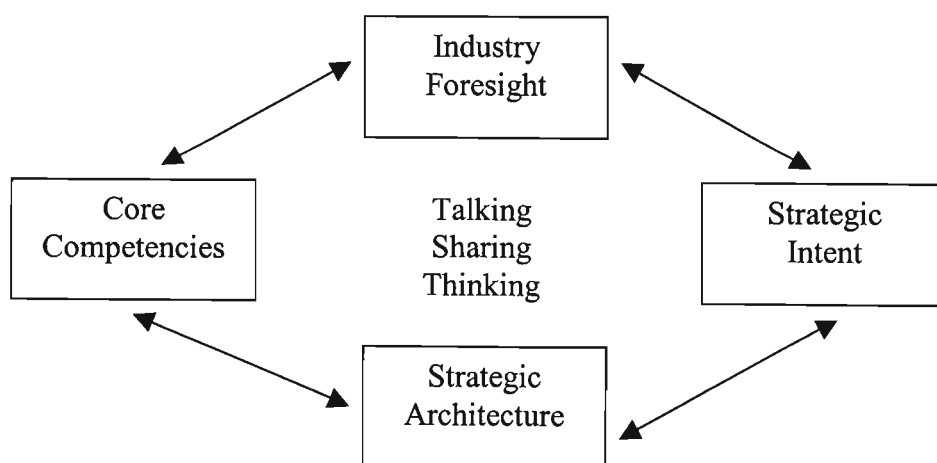
Figure 3.10. Core Competence Strategy Making Process (adopted from (Prahalad and Hamel, 1990:82)

- **Industry foresight** develops a view of the future based on deep insights into trends in lifestyles, technology, demographics and geopolitics;

- **Strategic intent** identifies an ambitious, compelling, leadership position for the future which provides a sense of direction, discovery and destiny;

- **Core competencies** are the underlying integrated bundles of skills and technologies which are competitively unique and re-deployable;

- **Strategic architecture** maps the pathway to the strategic intent by identifying the corporate challenges needed to develop the functionalities and core competencies.

This approach mainly recommends the development of a change journey (strategic architecture) towards a clearly defined vision (strategic intent) based on strategic capabilities (core competencies) to meet the perceived requirements of a shared view of the future (industry foresight).

As depicted in Figure 3.10, according to Prahalad and Hamel (1990:82), the strategy-making process is a creative process of learning and discovery that requires time for thinking, discussion, asking difficult questions, reflection, imagination, convergent thinking, debate, disagreement, insight, experimentation, involvement, conversations, divergent thinking, synthesis, meetings, workshops and team projects.

For a successful implementation of the Core Competence Approach to strategy making, Clark (2000:120) introduces a process model that identifies four categories of key factors that may influence the implementation of the core competence strategy making process. Figure 3.11 illustrates these factors.
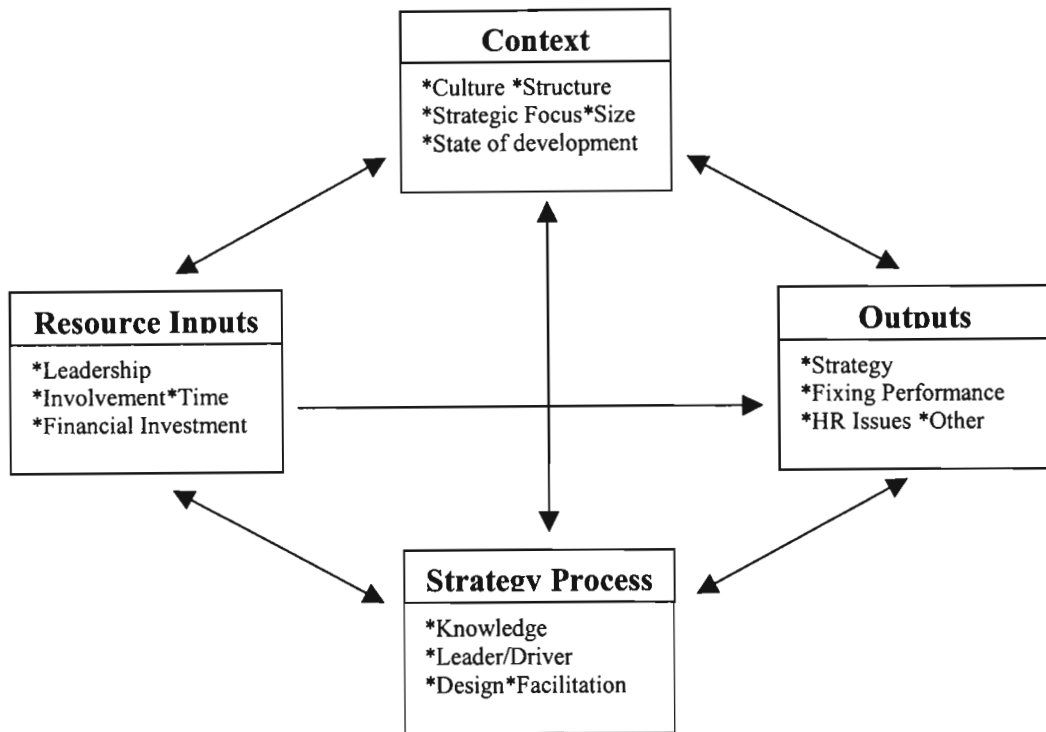
Figure 3.11 Strategy process: implementation factors (adopted from (Clark, 2000:120)

- **Resource Inputs** refers to the critical involvement of resources such as leadership, the organisation, time and financial investment in the strategy making process;

- **The strategy process** refers to the need to develop in-depth knowledge and understanding of the specific content of the Core Competence Approach;

- **Context** refers to factors such as culture, structure, size, stage of development and strategic focus of the organisation, that may have an impact on the ability to implement this approach to strategy;

- **Outputs** are the new core competence-based strategy and strategic intent (shared direction for the future), an understanding of the organisation's core competencies, development of industry foresight and a pathway forward (strategic architecture). Other output may include such benefits as fixing performance gaps, human resource issues and other intangible benefits.

As demonstrated by the above factors, the application of the Core Competence Approach, could be effective within a small IT company. The Core Competence Approach takes the view that the strategy-making process is an innovative and a discovery process. With the IT field expanding rapidly, the strategy development process requires a framework, that seeks to continuously review the shape of future markets and industries by anticipating customer needs and leveraging resources to provide unique value to customers. The Core Competence Approach to strategy making allows for management of a small IT company to have the framework to challenge existing business and industry models by allowing diversity of opinion and perspectives, willingness to suspend judgment and openness to new ideas.

Also interesting to note is support for one of the key success factors in Clark's (2000:121) theory, that is, the importance of organisational culture in the strategy making process. Knowledge-based organisations, that is, organisations that see creation, development, application and possession of information and knowledge as the key factor to their ability to sustain competitive advantage, should know organisational culture(s) and cherish and nurture those that enable and sustain their competitive distinctness (Blackler *et al.*, 1998:70). Franklin (2000:130) further supports this notion by emphasising that, "culture should take primacy in managing the processes of strategic change – that is, in *'doing the strategy'*".

Whilst bearing in mind the key factors that may affect the successful application of this approach, Clark (2000:121) also highlights some of the

issues that may create problems in the implementation of the Core Competence Approach. These include:

- Change of leadership mid-way through the strategy-making process;
- Change of ownership mid-way through the strategy-making process;
- Change of structure mid-way through the strategy-making process; and
- Short-term focus on tasks that appear to be more compelling and urgent.

If one views the Core Competence Approach to strategy-making approach as a complete methodology for strategy-making, particularly for knowledge-based organisations, one can also note that the factors involved in the implementation process are similar to those involved with other traditional strategy-making models. The consensus about the importance of culture is also noted, particularly in small organisations. This approach is more suitable for the type of organisation around which this dissertation seeks to build the strategy framework. It anticipates change and encourages innovation, that are characteristics of a successful small company in the IT industry.

3.7 Conclusion

In this Chapter we set the stage for defining a framework for developing a strategy for a small IT company. Before investigating the possible approaches that can be incorporated into a framework, it is necessary to highlight the integral nature of the strategy within the overall organisational framework, so as to ensure that any strategy is not developed in isolation of other elements of the organisation. In the case of a small company, there exist strong views that the level of sophistication required for the different parts of the organisational make-up, are dependent on the organisation's stage of maturity. However, the strategy

part might require early attention, particularly for companies in the IT industry, purely on the basis of inherent volatility in the industry. At the same time, this Chapter highlights the importance of managing stakeholders with the view of ensuring that any strategy developed, takes into account the possible influence of other expectations from all those who would be affected by the strategy. It is pointed out that it is important to ensure that all stakeholder expectations are adequately considered during the strategy-development process.

In this Chapter, we also investigate some of the commonly used approaches to strategic management and entertain an argument on the choice between the linear or cyclical approaches. We conclude that in certain cases, particularly in large organisations, it may be necessary to apply linear approaches to ensure monitoring and measuring some of the high level corporate objectives. On the other hand, in dynamic environments, like the IT industry, it is necessary to apply cyclical approaches to quickly adjust the strategy in response to changing environments. In addition, the cyclical approaches are found to be more relevant to smaller organisations as they allow for continuous assessment of the environmental changes that might affect the company's sustained viability. Most of the approaches explored, are found to be sufficient as guidelines for the strategic planning process but lack the methods and techniques for dealing with the context of a small company in the IT industry.

Finally, in this Chapter we investigate other theories that may contribute to the strategic management process of a small IT company and conclude that Soft Systems Methodologies can be applied but purely for the sake of better understanding some of the complex problems, particularly with socio-political dimensions. Also, the Strategic Choice Approach can be applied mainly to enhance the decision-making process by addressing interconnected organisational problems in a strategic manner. However, its techniques are more valuable if applied within an approach focused on the strategy development process, particularly as a means of assisting in

managing uncertainty, largely characteristic of the environment within which a typical small IT company operates. Another approach that is explored is the Core Competence Approach to strategy development. This approach is as good as the other approaches explored earlier in the Chapter but its focus on knowledge-based organisations and its inherent support for innovation and continuous learning, makes it more suitable for a small IT organisation, the type of organisation this dissertation is developed around.

Although one needs to highlight the importance of well thought through choices at every decision-making point throughout the strategy formulation process, for the purpose of this dissertation, we apply some of the Strategic Choice techniques at selected points using the Core Competence Approach as the framework for strategy development to demonstrate the value of these techniques in the decision-making process of a small IT company.

CHAPTER 4

THE FRAMEWORK FOR STRATEGY DEVELOPMENT FOR A SMALL INFORMATION TECHNOLOGY COMPANY

4.1   Rationale for the Strategy Development Framework

Strategy formulation is an important and often difficult activity facing SMMEs. The nature of today's organisational decision-making and strategy formulation has changed dramatically from the single-handed intuitive approach, which was prevalent in the past, to a more collaborative approach (Fogg, 1994:120). This is partly because of the different types of problems that SMMEs face. Problems in general are often no longer clear cut and simple, but rather extensive, interconnected, multidimensional and fuzzy (Saaty, 1994:232).

Duhaime (2001:110) sees the only merit for considering differences in strategic management issues in a small business, as opposed to larger organisations, pertains to vulnerabilities and advantages over larger rivals. In her view, small businesses do not have much room for error in their choices of strategy: the products or solutions they choose to offer, how they choose to compete, and the goals they strive to attain. The demise of many start-ups and new entrepreneurial ventures is as a result of their initial choices on products and services that are not in demand enough by customers. Those that initially succeed, often discover that they do not have the resources to deal with a sudden decrease in their marketplace performance.

The second issue with small business, is that they are more vulnerable than larger organisations to the changes of rivals, customers and suppliers. They do not have the resources to negotiate as larger organisations due to their size and scale.

Thirdly, small organisations are often vulnerable to dependence on limited product/service offerings, limited customers or limited geographical coverage.

On the other hand, Duhaime (2001:110) sees inherent in small organisations, some advantages due to their closeness to a small set of customers. Small firms should be able to observe change in and around their customer base faster and more insightfully than their larger, bureaucratic rivals.

According to Duhaime (2001:110), the single commonality between small organisations and large organisations that is relevant when looking at strategic differences, is that they often fall prey to newly arrived small rivals. For small businesses to survive and succeed they, like their larger rivals, need to recognise various change agents – new competitors, changing customer preferences, technology developments and changes in governmental policies, and devise strategies to contend with them.

For this reason, small businesses, in general, are no different than any other form of organisational entity. In the context of the strategic management process, small businesses should apply the same principles, as would larger organisations, whilst bearing in mind their level of vulnerability and the opportunity to effect strategic changes when the operating environment changes.

Based on the literature reviewed up to this point, there is sufficient consensus on the applicability of fundamental strategic management principles to both larger and small organisations. The quality of the decision-making processes is more crucial in smaller organisations as poor decisions could easily affect the ability for a small organisation to continue to operate. The need for timely quality decisions is even more accentuated in the case of such companies in the IT industry. This is due to the industry's unique characteristic of high degrees of innovation and turbulence currently being experienced.

In addition to regularly spending time on strategic issues as would be necessary for organisations of any size, Duhaime (2001:111) suggests that small businesses need a system integrated with the business plans, with a management control process for review of results and correction of the organisation's course. It is particularly important for small businesses to develop written plans and to communicate with their stakeholders a variety of objectives.

The business plan is a commonly used method, and is particularly useful to small businesses as a way of incorporating its strategy and goals, Duhaime (2001:112). It communicates to stakeholders, deep understanding of the issues affecting the business and how ready the management team are to cope with them. If we recognise the value of a business plan in the context of a small business, perhaps it can be viewed as a mandatory output of a small business's initial strategy development process. It can further be used as a dynamic tool during the process of reviewing and monitoring the validity of an existing strategy. Furthermore, it imposes on the company an obligation to address key issues such as business objectives, overall business strategy, marketing and human resource planning.

According to Bygrave (1997:109), the eight reasons why a small business should have a business plan, are:

- To sell yourself on the business;
- To obtain bank financing;
- To obtain investment funds;
- To arrange strategic alliances;
- To obtain large contracts;
- To attract key employees;
- To complete mergers and acquisitions; and
- To motivate and focus your management team.

Therefore, for small businesses, the strategy formulation process is critical as it allows management to be equipped with the necessary knowledge to deal with some of the issues highlighted above.

A strategy formulation approach that addresses high level strategic issues whilst allowing for discussion within the management team, is most appropriate and practicable within a small organisation and can form the basis for the development of such tools as business plans that are necessary for small organisations. One of the advantages of smaller organisations is that the management team can meet and discuss strategic issues with minimal logistical hurdles. At the same time, decisions made, can quickly be communicated to the rest of the staff without major communication barriers.

During strategic planning processes, small organisations can take advantage of such versatility by applying strategic planning approaches that recognise the need to deal with issues at a high level but also allow for management to get close to issues that the company faces on a day-to-day basis.

The following sections describe the framework within which the strategy development process can be carried out. At the same time, some of the recommended techniques for assisting in the decision-making process, are highlighted.

4.2 The Important Principles of the Suggested Strategy Development Framework for a Small IT Company

In Chapter 2 of this dissertation, an analysis of the various issues involved in the IT industry is undertaken. This illustrates a need for a framework for strategic planning for a small IT company. In Chapter 3 a number of conventional approaches to strategic management is analysed. In addition, some of the theories that have a potential contribution towards enhancing the quality of the strategic planning process, are investigated. This confirms the view that a different approach for dealing with the strategic planning

process of a small IT company is required. It is also shown that some of the conventional approaches to strategic planning can be useful as a guideline for the process but the framework needs further support by techniques that allow for the management of uncertainties, whilst encouraging innovation and on-going learning throughout the strategic planning process.

Based on the analysis thus far, the framework for strategic planning for a small IT company shall be guided by the principles reflected in Table 4.1:

Table 4.1   The Principles that Underpin the Strategic Planning Process of a Small IT Company

P1	The framework must be guided by an approach that places emphasis on the key elements of the strategic planning process.
P2	The framework must allow for incremental decision-making and review throughout the strategic planning process.
P3	The framework must capture debates, discussions, discovery of new ideas, divergent/convergent thinking and experimentation.
P4	The framework must allow for the recognition of the strategy's effect on all stakeholders and incorporate plans for dealing with such effects.
P5	The framework must be flexible and reviewable on a regular basis to allow for exploration of new ideas that enter the IT industry from time to time.
P6	The framework must have as its output, commitment towards actions to be taken immediately, actions to be taken at an agreed time in the future and contingency plans.
P7	The framework must allow for commitments made during the strategy development process to be translated into major elements of the business plan, for example, marketing, financial and human resource requirements.

The above principles are derived from the analysis of the drawbacks of existing strategic planning approaches and the need to focus on issues

relating to small IT companies so as to provide for a holistic approach that improves the overall strategic planning process.

4.3   The Elements of the Strategy Development Framework for a Small IT Company

The basis for the suggested framework for developing a strategy for a small IT company, is the Core Competence Approach to strategy development. Using the Core Competence Approach as a basis for the framework, makes the suggested framework ideal for a small IT company, as it takes the view that the strategy-making process is an innovative and a discovery process. As more businesses continue to seek competitive advantage through IT, the pressure is on IT companies to develop strategies that are able to keep up with the market demands by anticipating market needs and leveraging resources to provide unique value to the market. The Core Competence Approach to strategy-making, allows for management of a small IT company to have the framework to challenge existing business and industry models by allowing diversity of opinion and perspectives within the strategy formulation process.

The Core Competence Approach focuses on the need for the strategic planning team to build the organisation's strategy around core competencies that the organisation possesses or is to acquire for it to be successful for the future (Prahalad and Hamel, 1990:102). It highlights the need to focus the strategic planning process around four focused components, that is, identifying the company's strategic intent, developing industry foresight for the company, identifying the company's core competencies, and developing the strategic architecture that supports the strategic intent. This approach also stresses the need for continuously sharing information, debating issues and revising decisions throughout the strategy development process.

Although the Core Competence Approach places emphasis on the need to share, discuss and revise decisions as regularly as possible, it does not have any specific tools or techniques to facilitate this. However it presents

a solid framework for the strategy development process for a small IT organisation and particularly those organisations that believe in the development of key core competencies as necessary for sustainable competitive advantage.

As a high level framework, for example, during the Strategic Intent phase of the strategy development process, it allows the team involved, to focus on developing a vision for the company and to apply their minds to an ambitious leadership position that they envisage for the organisation. During the Industry Foresight phase of the strategy development process, it allows for those members involved, to attempt to build a view of the future, that is, trends, lifestyles and geopolitics and to examine the future and get a view of the organisation's readiness for future challenges. During the Core Competencies phase of the strategy development process, it allows for those members involved, based upon the common view of the future and the desired strategic intent, to recognise the competencies that the organisation has and those competencies that still need to be developed for it to be competitive in the future. And finally, during the Strategic Architecture phase of the strategy development process, it allows for those members involved, to apply their minds to those building blocks for a pathway towards achieving the strategic intent.

Overall, the Core Competence Approach presents a solid framework for allowing those involved in the strategy development process to focus on major strategic issues that would necessitate a shared vision of the future of the company. However, it does not provide specific techniques for meeting the objectives of each of its components. This leads to the need to look for suitable methods to support it.

The suggested framework recommends that certain techniques of Strategic Choice be used to supplement the Core Competence Approach with the view to providing a complete toolset for the strategy development process of a small IT company.

The Strategic Choice Approach is useful, particularly when dealing with interconnected decision problems in any decision-making process, which require a systematic approach (Friend and Hickling, 1987:38). It allows for those involved to make incremental progress towards decisions by focusing their attention on alternative ways of managing uncertainty. This Approach does not provide a specific framework for strategy development, per se. For the purpose of this dissertation, only certain techniques of the Strategic Choice Approach are considered to be of interest. The reason why its overall process is not included in the proposed framework for strategic planning, is that the Core Competence Approach serves better the goals of this research. It is more oriented towards problem structuring of complex managerial problems. Certain techniques of the Strategic Choice Approach however, allow for those operating within a chosen strategy development methodology, to deal with interrelated decision problems and uncertainty in a systematic manner, as they would naturally arise with any strategy development process.

Broadly, techniques from the Strategic Choice Approach allow for those involved in a decision-making process to shape the problem at hand, design the solution, compare alternative courses of action and choose the desired course of action whilst managing uncertainties that may arise from time to time during the process (Rosenhead 1989:123). The following are some of the techniques of Strategic Choice that can be used within a chosen strategy development framework:

- **Decision Graphs** – These allow for the participants to get a visual view of the shape of the problem at hand. They allow for the participants to come to some agreement on the importance, urgency, focus and interrelatedness of the issues involved. See Appendix B for an example.

- **Analysis of Interconnected Decision Areas (AIDA)** – This technique allows for those involved in the process to explore specific courses of action available within the chosen area of focus. It

involves representing mutually exclusive options available within a decision area and deciding on whether options from other decision areas can be combined. After this technique has been applied, those involved begin to get a feel for feasible courses of action that can be taken within the given situation. See Appendix C for an example.

- **Judgemental Scale of Comparative Advantage** – The application of this tool is also useful when trying to build consensus whilst performing a comparison between two alternatives. Instead of using some numerical scale to compare two alternatives, this technique also allows decisions that may present themselves in a political context. See Appendix D for an example.

- **Uncertainty Graphs** – This technique allows for the team involved in the process to get a graphical view of the nature and impact of uncertainties that the working group has to deal with. It also indicates whether the uncertainty is of a technical, political or collaborative nature. At the same time, it highlights some of the exploratory options that have been identified up to that point in the decision-making process. See Appendix E for an example.

- **The commitment Package** – This tool allows for the team involved in the decision-making process to maintain documentation on the decision made that would allow for taking incremental steps towards decisions. It allows for the recording of immediate actions taken, choices of exploratory actions on any important areas of uncertainty, and choices of any procedural action for making decisions later where action is deferred. See Appendices F and G for examples.

4.4   The Suggested Framework for Strategy Development in a Small IT Company

The suggested framework for a strategy development process combines the strategic planning focus of the Core Competence Approach, with the systematic and incremental decision-making power of Strategic Choice techniques. It recognises the need to allow for those members involved in the strategy development process, to focus on major strategic issues. This would necessitate a shared vision of the future within the organisation, whilst making use of techniques that would allow for dealing with interconnected decision problems and focusing on alternative ways of managing uncertainty within the decision-making process. Figure 4.1 is a diagrammatical representation of the suggested strategy development framework for a small IT company.

This suggested approach enhances the quality of the results of the strategy-development process by allowing for the ability to systematically and effectively manage complexities within the strategy-development process, that other strategic planning methodologies do not allow for. It is innovative, since the proposed combination of the Core Competence Approach and the techniques of Strategic Choice was not reported before in the literature to the author's knowledge.

Figure 4.1 illustrates how the framework supports the strategy development process. Starting with the Strategic Intent component, the strategy development team's aim is to reach a consensus on an ambitious leadership position for the company in the future. This position could also be incorporated into the company's vision or mission statement. The use of decision graphs at this stage allows the strategy development team to agree on the important areas (decision areas) of consideration for incorporation into the company's strategic intent. It enables the team to develop a graphical view of these areas and their connectedness (decision links). As a result, the strategy development team will have arrived at an agreement, at least for that moment, on what group of areas (problem

focus) would contribute to the final definition of the company's strategic intent.
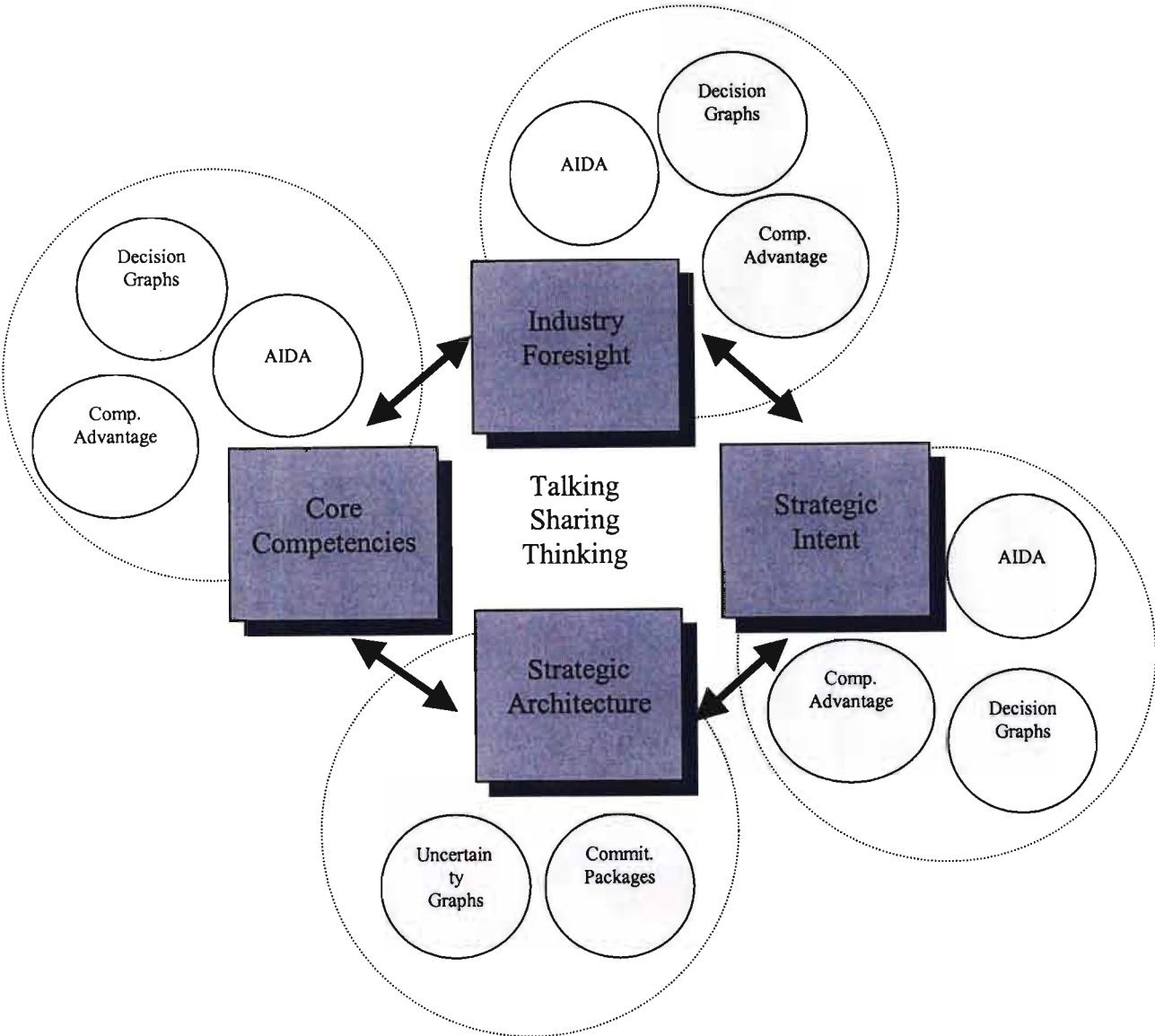
Figure 4.1 The Suggested Strategy Development Framework

At this point, the strategy development team begins to explore various choices they have within each of the areas in their selected problem focus. They use the Analysis of Interconnected Decision Areas (AIDA) method to determine which of the perceived choices are feasible when all available choices are taken into consideration. For example, the AIDA method will highlight those choices for the strategic intent that are not compatible with other choices in other selected areas of importance. Based on this, the

strategy development team begins to have a comprehensive view of all the feasible choices they have to allow them to build the statement reflecting company's strategic intent.

Finally, to complete the process of defining the strategic intent, the strategy development team defines and agrees on the criteria to use when deciding on the available choices. Once these criteria have been agreed upon, each of the possible combination of choices is assessed against each of the criteria using the judgemental scale of comparative advantage technique. This technique allows the team to develop a common view of the impact of each of their choices against what they agreed to be the desired effect of the company's strategic intent. At the same time, it allows them to further narrow their choices with the view of directing attention to those that provide for the elements of the strategic intent that have the desired effect.

At this point, the strategy development team has developed and agreed on the elements of the company's strategic intent. In the next step, responsibility is assigned for finalising the wording of the strategic intent and recording of any of the uncertainties identified that might affect the nature of the company's strategic intent. This completes the initial process of defining the company's strategic intent. The next task for the strategy development team is to develop a common view of the future of the industry. See Industry Foresight in Figure 4.1.

The application of the Strategic Choice techniques indicated in Figure 4.1 for the Industry Foresight and Core Competence stages is similar to their application for the Strategic Intent phase described above. The only difference, is their focus on achieving each of the objectives of each phase, that is, the development of a common view of the future of the industry and the identification of the perceived key core competencies, respectively. Otherwise, the process followed to define the company's strategic intent is also followed for these phases.

At this point, the strategy development team has defined the company's strategic intent, and made some commitments towards finalising it. Also, members have discussed and agreed on a view of the future. As far as they are aware, certain industry trends will emerge and the company has to be sustainable under these circumstances. Lastly, they explored and agreed on what they collectively perceive to be the necessary competencies required to reach the defined strategic intent within the agreed view of the future.

As reflected in Figure 4.1, the final task is that of defining the company's strategic architecture. In so doing, the strategy development team has a task of establishing a management tool that supports the journey towards reaching the defined strategic intent, bearing in mind the agreed view of the future and the perceived competencies required for sustained competitiveness in that environment. To accomplish this, the task requires the use of the uncertainty graphs and the commitment package. The uncertainty graph is drawn by the strategy development team to graphically reflect all the uncertainties that would have been identified throughout the other stages of the process, that is, strategic intent, industry foresight and core competencies. As part of this process, they agree on the best approach of resolving the uncertainties and at the same time, responsibilities and timeframes are assigned to each uncertainty. Finally, the commitment package is put together as a method of recording the team's decisions and approach across all stages of the strategy development process. This commitment package can be used as a performance management tool and as a basis for the on-going strategy review process.

Table 4.2 illustrates in a tabular format how the Core Competence Approach to strategy development can be enhanced with the power of Strategic Choice techniques.

The gist of this framework is that the Core Competence Approach components (of identifying the strategic intent, developing industry foresight

and identifying core competencies) focus on building a common perspective within the strategy development team of the current and future view of the company's operating environment. Strategic Choice techniques, such as, decision graphs, the AIDA method and the judgemental scale of comparative advantage, are most suitable to assist in meeting this objective. These techniques facilitate the necessary probing, debate and exploration of feasible options available to the strategy development team.

Table 4.2 – The Suggested Strategy Development Framework

Core Competence Approach Component	Strategic Choice Approach Technique
Identifying the company's Strategic Intent	• Decision Graphs; • Analysis of Interconnected Decision Areas (AIDA) method; and • Comparative Advantage Analysis.
Developing Industry Foresight for the company	• Decision Graphs; • Analysis of Interconnected Decision Areas (AIDA) method; and • Comparative Advantage Analysis.
Identifying the company's Core Competencies	• Decision Graphs; • Analysis of Interconnected Decision Areas (AIDA) method; and • Comparative Advantage Analysis.
Defining the company's Strategic Architecture	• Uncertainty Graphs; and • Commitment Packages

On the other hand, the definition of the strategic architecture component of the Core Competence Approach aims at reaching consensus amongst the strategy development team, on the desired roadmap towards reaching the identified strategic intent. The value of the uncertainty graphs, combined with the usefulness of the commitment packages provides the ideal set of tools for application in defining the small IT company's strategic architecture.

In summary, the basis for the suggested framework for developing a strategy for a small IT company, is the Core Competence Approach to strategy development. The framework takes the view that the strategy-making process is an innovative and a discovery process by focussing the strategy development process around identifying the company's strategic intent, developing industry foresight for the company, identifying the company's core competencies and developing the strategic architecture that supports the strategic intent. It also stresses the need for continuous sharing of information, debating issues and revising decisions throughout the strategic development process. It provides a basis for the suggested framework, allowing those team members involved in the strategy development process to focus on major strategic issues that would necessitate a shared vision for the company.

In addition, the framework is supported by selected techniques of Strategic Choice aimed at providing a supplementary toolset for the entire strategy development process of a small IT company. This toolset is useful, particularly when dealing with interconnected decision problems within any of the high-level components of the strategy development process. It facilitates incremental progress towards decision-making in a systematic manner. The different modes of Strategic Choice are not used in their full versions and only a limited set of techniques are utilised here. However, the names of the first three modes will be used to denote the activities associated with the definition of the stages of the Core Competence Approach. The tools applied during the strategic intent, industry foresight and core competencies components allow for decisions to be made on a

view of the future, that is, intent, market and competency requirements. On the other hand, the tools applied during the architecture component allow for consolidation of all decisions made previously into the final commitment package which serves as a basis for the company's strategy and input to the business plan.

4.5 Justification of the Framework: Its Validation and Legitimatisation

The justification of a framework, such as the one developed in this dissertation, is not a straightforward exercise as when one deals with models for example. In traditional science and engineering, operations research, and social science research, one usually justifies the research product, based on the canons of science. The product of this research is a strategic planning framework for a small IT company, that cuts across different paradigms. Using the canons of science for its justification, is therefore, more than a challenging task. The framework is about intervening in the real world situation in order to provide guidelines for a real life strategy development process. The ultimate and ideal validation of the framework requires successful implementation of the developed strategy within a small IT company. That is, once the suggested framework has been applied as part of the strategy formulation process, the emerging strategy is implemented and put to the test in a dynamic environment in which the company operates. One then needs to ascertain the extent of the successful implementation of the strategy, that is the ability to cope with the innovations and new ideas in the IT industry and its value to all stakeholders over time. To carry out this exercise within the scope and duration of this project, is unrealistic and, therefore other alternate means of justifying the framework will be pursued. But first, some important points need to be clarified.

The methods included in the proposed framework have been used on numerous occasions before (Friend and Hickling (1987:38), Rosenhead (1989:124)). Therefore, each of them has been experimentally validated and theoretically justified, following the same sources quoted earlier. Here,

they are combined to achieve a better outcome of their complementary use, combining their strengths.

In determining the development of the framework for strategic planning in a small IT company, the researcher proposed a model based on an analysis of the various issues typical of small IT companies. However, such a model was proposed for the purposes of understanding the environment that one has to deal with in developing a more appropriate strategic planning framework. The approach provides a fair general representation of reality that led to the adoption of various approaches towards developing the framework. While Southern Focus may not be entirely representative of all the small IT organisations, it is nevertheless justified in that based on its operating circumstances, it served as a competent and elucidating environment for the purposes of developing the framework.

The Southern Focus experimental implementation of the framework satisfies the two aspects of the validation of epistemological devices: the framework is operational and the model is relevant.

The next issue that needs clarification, is the ownership of the framework. This has an impact on the legitimisation of the framework. The answer is also not straightforward, especially when one considers the various stakeholders within a company. However, the primary intention of developing the framework is to provide those members responsible for the strategic planning process of a small IT company, with a strategic framework that is capable of improving the overall strategic planning process. By doing this, they will ensure the company's sustainability and competitive advantage in the future. Therefore, the issue of the legitimatisation of the framework rests purely on those members responsible for the definition and implementation of the company's strategy. Since the process involves all relevant stakeholders in the company, who support it unanimously, it can be considered as a legitimate one.

Many of the concepts and methods concerning validation have been developed in the context of making observations of the real world according to an experimental design. In general, validity can be defined as the quality of the fit between an observation and the basis on which it is made (Kirk and Miller, 1986:4). Landry et al (1996:445) suggest that model validation and model legitimisation are two overlapping, but nevertheless distinct, activities and for an OR model (also pertinent to the framework) to be acceptable, it has to be valid *and legitimate.* Similar views are expressed by Midgley (2000:106) when he states: "The term 'validity' is generally used by proponents of observational science: If a method is valid, it yields knowledge that reflects reality without known distortions or intervention by the observer. However those who believe that truly independent observation is impossible, tend to avoid the word 'validity' and talk about *legitimacy.*" The framework has to be legitimate in the eyes of those who will use it and those for whom it is intended. The less legitimate the framework is, the less likely it will be successfully implemented. A valid model is not necessarily a legitimate one and this holds true for the framework as well. The growth opportunities and the need for continuous innovative thinking in the IT industry resulting in enormous potential benefits for all stakeholders, will always be an indication of the validity and legitimisation of the framework.

The next Chapter is a case study of the application of the strategy development framework at a small IT company.

CHAPTER 5

A CASE STUDY ON THE APPLICATION OF THE STRATEGY DEVELOPMENT FRAMEWORK AT SOUTHERN FOCUS

5.1   Background to the Process

In an attempt to deal with the problem, management decided to embark on a strategy development process for the Company aimed at developing a common purpose and vision.   The strategy development process was to involve the management team in a participative environment, over a series of workshops. Although management did not dictate a specific approach for the facilitation of the process, they emphasised the need to incorporate strategy development methods that would allow the management team to systematically deal with complex situations that might arise from time to time during the process.

The approach that was applied as the basis for strategy formulation at Southern Focus, involved the application of a framework based on the Core Competence Approach to strategy development. At the same time, selected techniques of Strategic Choice were applied as a means of guiding the decision-making process through the different stages of the strategy development process.

The management team of Southern Focus participated in all the workshops, which took approximately 2 hours each. The participants at the workshop were:

- The Chief Executive Officer (Facilitator);
- The Financial Manager;
- The Systems Development Manager; and
- The Marketing Manager.

The generic scenario of each workshop included:

- explanation of the Core Competence Approach component being explored;
- explanation of the Strategic Choice techniques to be applied;
- participative application of proposed approaches; and
- consolidation and reflection on workshop proceedings.

Although the initial consideration was to apply all modes of Strategic Choice to all components of the Core Competence Approach, it was noted that there is some similarity in the final goals of that approach and those of the Core Competence Approach. The latter, however, was found to be more suitable for a framework for strategic planning but lacked specific techniques to assist management in resolving uncertainties and complex operational issues. The Strategic Choice Approach provided these necessary techniques and hence, it was decided to apply selected Strategic Choice techniques where appropriate to each strategy component in focus.

The following sections detail the proceedings of each of the workshops conducted, designed around the components of the Core Competence Approach to strategy development, that is, the identification of the Company's strategic intent, the formation of the industry foresight for the Company, the identification of the Company's core competencies and the definition of the Company's strategic architecture.

5.2 Identifying the Company's Strategic Intent (Workshop 1)

This being the first workshop, a fair amount of time at the outset went into explaining to the participants the purpose of the workshops, methods to be applied and rationale for selecting such methods for the strategy development process for the Company.

Due to the fact that the participants would be expected to give their input in the application of different techniques of Strategic Choice throughout the exercise, it was necessary to clearly display the objective of the exercise where it was visible and referred to at all times throughout the sessions.

For this workshop, the objective was:

To identify an ambitious, compelling, leadership position for the future of the Company, which provides a sense of direction, discovery and destiny.

To assist the decision-making process within this phase of the Core Competence Approach to strategy development, selected techniques of the Strategic Choice Approach were applied. In Strategic Choice terminology, these were selected techniques for shaping, designing and comparing.

5.2.1 Shaping the Company's Strategic Intent

During this part of the workshop, the emphasis was on identifying the *decision areas* or areas of choice within which the participants believed alternatives existed for identifying the company's Strategic Intent.

Figure 5.1 shows the decision areas identified by the working group through a brainstorming process. The group believed that the adoption of a strategic intent for the Company would depend on the group's combined choices around the decision areas highlighted in Figure 5.1.

The adopted strategic intent would have to reflect:
- The desired geographical scope of the Company's operation;
- The Company's position and nature of Enterprise Resource Planning (ERP) solutions service provision;
- The Company's image with regards to Black Economic Empowerment (BEE);
- The choice of service offerings that would be built into the strategic intent; and
- The location of the Company's head office depending on the choice of geographical focus.
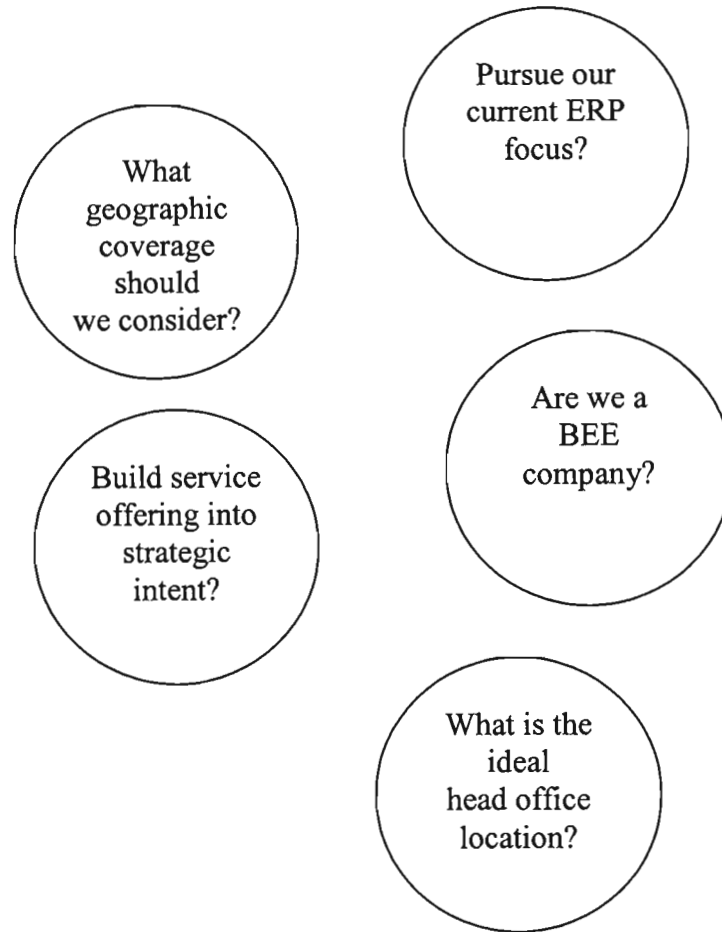
Figure 5.1 – Decision Areas for the Strategic Intent in their Initial Representation.

Having defined the decision areas, the group started to brainstorm the relationships amongst the decision areas and agreed on those they believed were important for the definition of the strategic intent of the Company, at least at this stage of the process.

The decision graph technique of Strategic Choice was used to paint a picture of the group's deliberations on the strategic intent of the Company. Figure 5.2, shows a decision graph that was developed. It depicts the agreed decision links, reflecting the interrelated decision areas identified earlier. At the same time, it depicts the agreed problem focus for this stage of the process.

PROBLEM FOCUS

Pursue our
current ERP
focus?

DECISION LINK

DECISION AREA

Are we a
BEE
company?

Build service
offering into
strategic
intent?

What is the
ideal
head office
location?

What
geographic
coverage
should
we consider?
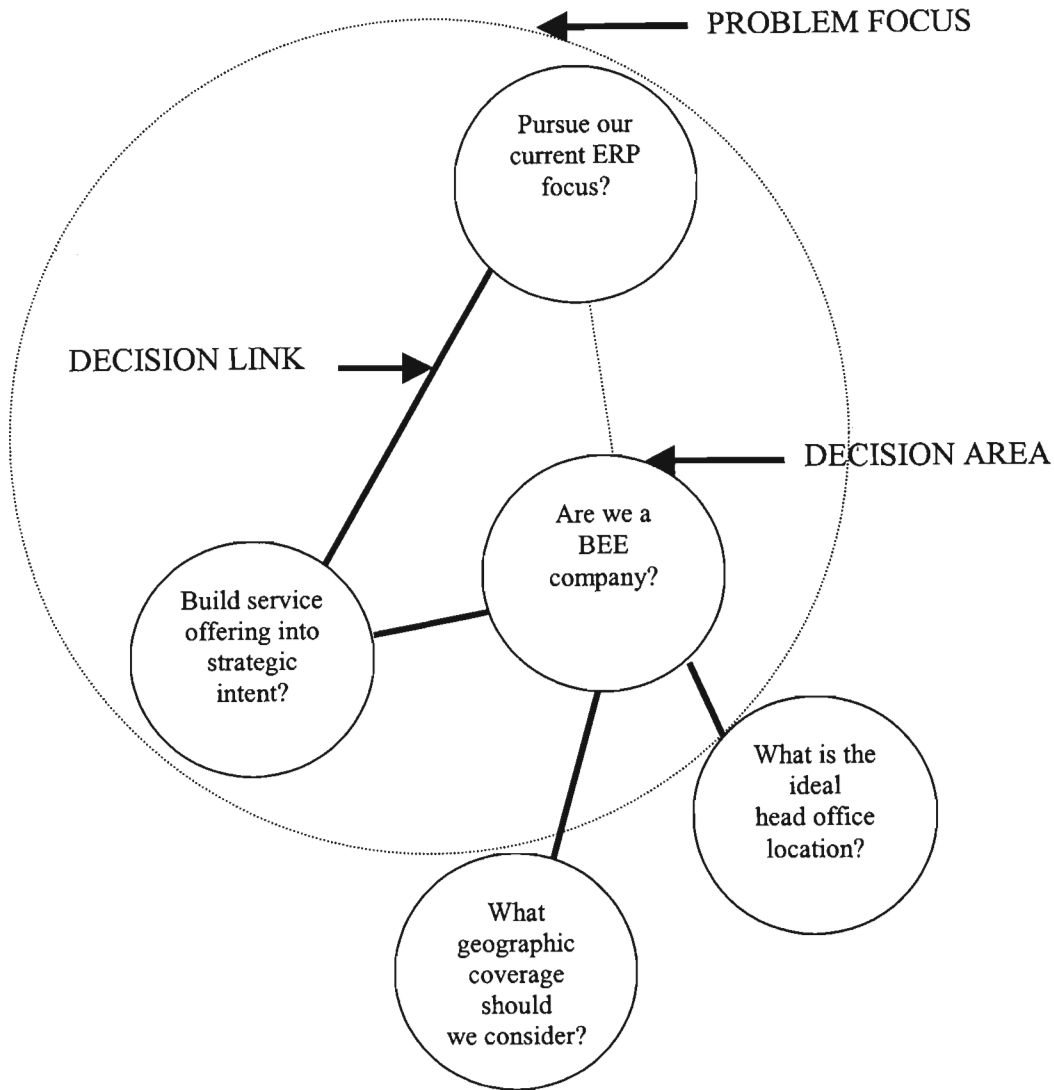
Figure 5.2 – Decision Graph Indicating Decision Areas, Links and Problem Focus Relating to the Strategic Intent.

As reflected in Figure 5.2, the issues of area of coverage and the location of the head office were left out of the initial problem focus (depicted by a dotted circle) on the basis of the need to address the other decision areas partly on the grounds of importance, partly on the grounds of urgency and partly on the grounds of connectedness (decision links) within the overall decision graph. The working group felt that the decisions on the Company's services offerings, the Company's extent of involvement with ERP solutions and the Company's BEE status needed to be reflected in the Company's strategic intent and, as such, should be the focus of attention in the

process of forming the strategic intent for the Company. The decision links indicated by a solid line, reflect the perceived strength of connectedness between the decision areas, whereas the decision links indicated by a dotted line, reflect an existing but relatively weak connection between the decision areas.

At this stage, the group concluded that it had formed a common view of the shape of the strategic intent to be developed. This collective view, as depicted in the decision graphs, was that the decision on the Company's strategic intent rested on the choices to be made only within the decision areas in the encircled problem focus. Nothing else needs to have a role in the final statement of the Company's strategic intent. The use of the decision graph allowed for the group to incorporate their views of the shape of the task of building the Company's strategic intent. The next step was to get closer to the specific choices within the chosen area of focus for the definition of the Company's strategic intent.

5.2.2 Designing the Company's Strategic Intent

Having formed a common view of the shape of the Company's strategic intent, this part of the workshop introduced the Analysis of Interconnected Decision Areas (AIDA) method to explore possible courses of action aimed at arriving at a strategic intent within the chosen problem focus.

Following on the decision areas identified earlier, the group formulated a set of options representing the range of choices thought to be available within each of the three decision areas contained in the problem focus already selected as indicated in Figure 5.2.

Table 5.1 lists the set options chosen within the decision areas in the current problem focus. For example, the group felt that if the service offerings were to be built into the strategic intent of the Company, it

would include consulting services, software development services and hardware sales. Similarly, mutually exclusive options available within the other decision areas are reflected under the "options" column.

For ease of reference, labels (using abbreviations of decision areas) were also assigned to the different decision areas identified.

Table 5.1 – Options Within Strategic Intent Decision Areas

Decision Area	Label	Options
Build service Offering into Strategic intent?	Offering?	- Consulting - Software - Hardware
Pursue our Current ERP focus?	ERP?	- SAP - JDE - Oracle - All
Are we a Black Economic Empowerment (BEE) company?	BEE?	- Yes - No

This means that the final statement reflecting the Company's strategic intent should prominently reflect most of the available options in each of the decision areas. Although the BEE factor is not a product/service, the participants felt strongly that it is important to consider embedding it in the Company's strategic intent, particularly if BEE will be legislated by the South African Government.

Having identified a range of mutually exclusive alternative options thought to be available within each of the identified decision areas within the current problem focus (and using the AIDA method), the group explored whether the different options from the different decision areas can be combined. The idea was to come to a set of feasible

combinations of options across all decision areas within the problem focus. Those combinations that were perceived to be incompatible, would be eliminated and those that were perceived to be doubtful, would be highlighted using the question mark sign ("?").

Table 5.2 shows a decision tree indicating the feasible decision schemes (feasible combinations of options) for the chosen problem focus. For later reference all feasible options are assigned sequential alphabetic letters under the "decision scheme" column. The decision areas are abbreviated at the top of the table using labels defined earlier in the process.

Table 5.2 – Decision Tree Identifying Feasible Decision Schemes for the Chosen Problem Focus of the Strategic Intent

Offering?	ERP?	BEE?	Decision Scheme
Consulting	SAP	Yes	A
		No	B
	JDE	Yes	C
		No	D
	Oracle	Yes	E
		No	F
	All	Yes ?	G?
		No	H
Software	SAP	Yes	I
		No	J
	JDE	Yes	K
		No	L
	Oracle	Yes	M
		No	N

Table 5.2 – Decision Tree Identifying Feasible Decision Schemes for the Chosen Problem Focus of the Strategic Intent (continued...)

	All	Yes ?	O?
		No	P
Hardware	SAP	Yes	Q
		No	R
	JDE	Yes	S
		No	T
	Oracle	Yes	U
		No	V
	All	Yes ?	W?
		No	X

It was noted that most combinations are compatible, particularly if the Company is to provide a broader range of services including infrastructure in the future. However, there are doubtful options (indicated by '?'), based on the fact that the software vendors of ERP application may have problems with companies promoting competitive products. Through the application of the AIDA method, the group was able to realise that some of the ideas for the strategic intent of the Company, were completely incompatible with the view of the group and, as such, allowed them to re-think these elements in view of the overall picture.

At this stage, the group was satisfied that it had effectively explored all the feasible combinations of options for incorporation into the Company's strategic intent. As a collective, the group had successfully designed the Company's strategic intent through identifying the set of feasible decision schemes for later comparison. The next task was to define criteria against which each of the feasible choices would be measured to determine their relative contribution to the desired strategic intent.

5.2.3 Comparing Feasible Options for the Company's Strategic Intent

Having identified a set of feasible options available for incorporation into the Company's strategic intent, during this part of the workshop the concept of comparison areas was introduced.

The introduction of comparison areas was aimed at developing group consensus as to what criteria should be used to compare the identified options. These were identified by the participants as areas of concern within which they would compare alternative courses of action.

The comparison areas identified by the working group were:

- alignment to national procurement policies;
- barriers to entry for competition; and
- expansion potential.

For the purpose of getting a closer perspective and insight into the overall process, the group decided on a *working shortlist* of possible combinations from Table 5.2. The working shortlist included decision schemes from A to H. The idea was to analyse this shortlist closely with the aim of getting a view of the group's preference based on the alternatives contained within the selected shortlist. This preference would not be definitive, but would allow them to get an initial feel of their collective choice of the elements of the strategic intent.

For an even closer perspective and insight on their preference, they began to compare two schemes at a time from the selected shortlist using the judgment scale of *comparative advantage* between the identified two alternatives. The idea at this point was to compare a pair of schemes against each of the agreed comparison areas. The group decided not to perform the detailed analysis on all the decision

schemes within the shortlist because the results of the analysis of schemes A and B would provide for a general feel for the necessary understanding of the overall balance of advantage that lies amongst the broad range of alternatives.

Figure 5.3 shows the results of the analysis of comparative advantage for schemes A and B from Table 5.3.
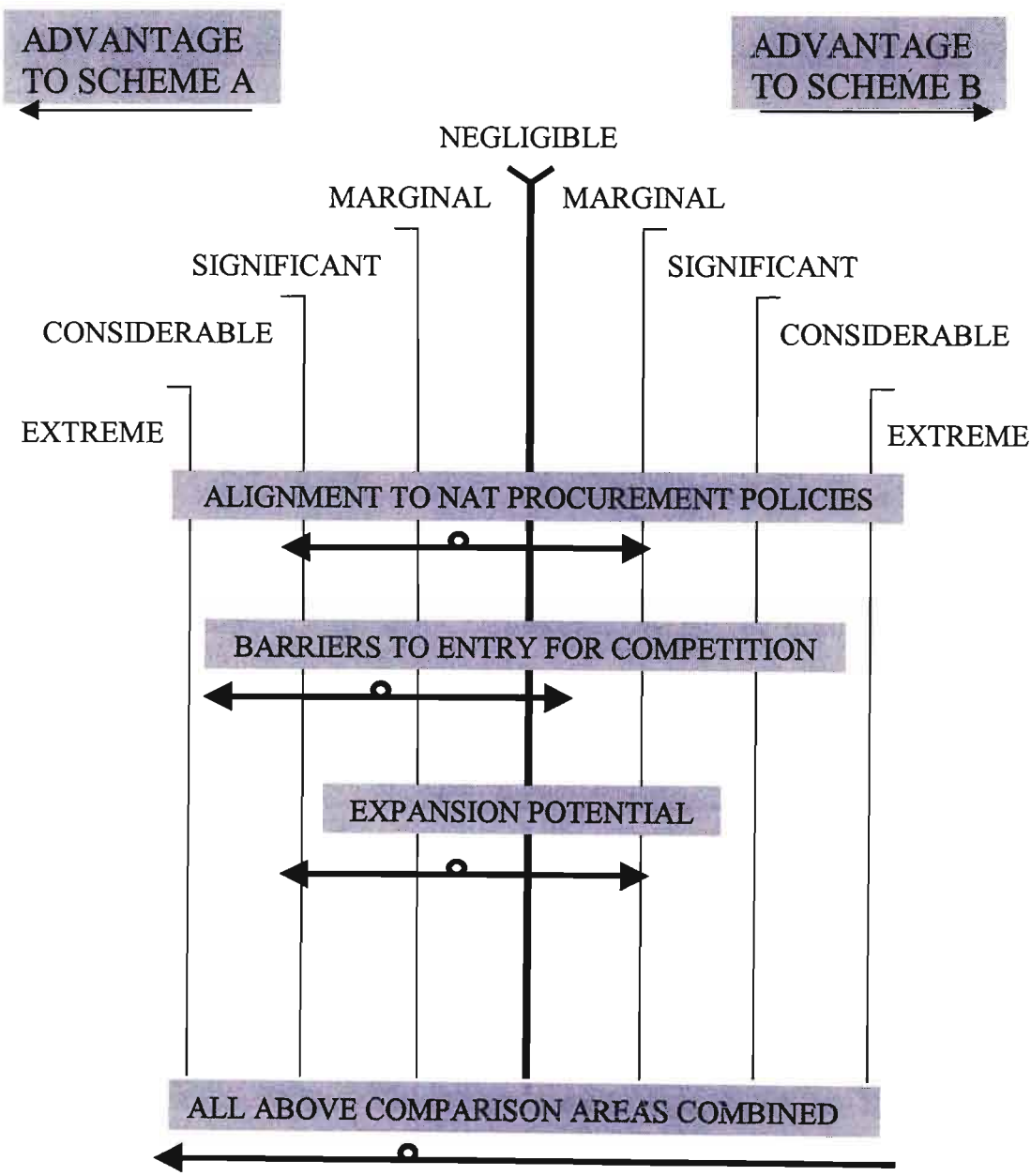
Figure 5.3 – Analysis of Comparative Advantage on Schemes A and B.

Figure 5.3 depicts with the comparison area, 'Alignment to National Procurement Policies', the group's conclusion after comparing schemes A and B across the comparison areas identified earlier. Using a common scale with successive levels of perceived advantage, that is, negligible, marginal, significant, considerable and extreme, the group concluded that the balance of advantage was somewhere between negligible and marginal.

More specifically, Figure 5.3 reflects how much of an advantage scheme A (a BEE company that provides consulting services with a SAP competence) has when compared to scheme B (not a BEE company providing the same service with a similar SAP competence), using "Alignment to national procurement policies" as a criteria.

Thus, the group felt that if the criterion of "Alignment to national procurement policies" is used, there is a slight advantage to being a BEE company compared to not being a BEE company (with both providing the same service with a similar SAP competence). This is indicated on Figure 5.3 by the position of the small circle in the middle of the line with arrows on each side below the criteria being applied.

The same process was undertaken between schemes A and B for the other comparison areas, that is, barriers to entry for competition and expansion potential. As indicated in figure 5.3, the results of the combined analysis of schemes A and B against all comparison areas reflect a marginal advantage towards scheme A. The combined view is reflected on Figure 5.3 by the position of the small circle on the line with an arrow pointing in the direction of the overall balance of advantage.

This exercise gave the group an indication of their collective preference on the options that would form the basis for the desired Strategic Intent.

A point worth noting, is that it is at this stage that a number of uncertainties began to come to the fore. These were particularly brought up whilst the group was attempting to form preference judgements between different comparison areas. For example, although there was consensus on the advantage of having BEE credentials, there was uncertainty on the specifics of the national procurement policy on the issue.

The uncertainties that were brought forward during this exercise were:

- the need to better understand the national procurement policies – Uncertainty pertaining to guiding Values (UV); and
- the size of the market for the purpose of evaluating market potential – Uncertainty pertaining to the working Environment (UE).

The identified uncertainties were recorded and classified accordingly. At the end of the process, all uncertainties identified throughout the process were collated into a single view and appropriate action for resolution assigned.

At this stage, the group was satisfied that it had sufficiently examined the process of developing a common understanding towards defining the Company's Strategic Intent. After developing a common set of preferences on options to be considered for inclusion in the statement of Strategic Intent, remained the exercise of putting together a statement that would reflect the group's preferences.

It was decided that this would be done in the form of a competition in which all members of staff would participate. The winner would be chosen by the management team, by using criteria aligned to the agreed group preferences.

5.2.4 Consolidation and Reflection on the Process of Identifying the Company's Strategic Intent

The process of defining the Strategic Intent for the Company involved the application of selected techniques of Strategic Choice to allow for the management team to develop a common consensus on the preferred elements that would form the basis for the statement indicating the Company's Strategic Intent. The techniques for shaping, designing and comparing were successfully applied to reach the desired objective.

In addition, these techniques allowed for the different types of uncertainties to be highlighted and classified.

Furthermore, the group concluded that whatever the wording that defines the Company's strategic intent eventually, it will need to embody elements that indicate the Company's association with its offerings, ERP involvement and BEE status.

Finally, as far as meeting the objective of this section, the management team was satisfied that the application of the techniques of Strategic Choice, allowed it to highlight areas of importance that would form the basis for defining the Company's strategic intent.

5.3 Developing Industry Foresight for the Company (Workshop 2)

As with all subsequent workshops, the facilitator recapped and summarised the activities and reflections from the previous workshop while painting a picture as to the stage of current focus relative to the overall strategy development process.

For this workshop session, the objective was:

To develop a view of the future, based on insights into trends in lifestyles, technology, demographics and geopolitics.

To assist the decision-making process in this phase of the Core Competence Approach to strategy development, selected techniques of the Strategic Choice Approach were applied. These were selected techniques for shaping, designing and comparing.

5.3.1 Shaping Industry Foresight for the Company

During this part of the workshop, the emphasis was on identifying the decision areas or areas of choice within which the participants believed alternatives existed, that would allow for the process of developing the industry foresight.

As with the process of defining the Company's strategic intent, covered in the previous workshop, the participants brainstormed issues around the future shape of the industry, within which the Company would operate.

Figure 5.4 shows the decision areas that were identified by the working group through a brainstorming process. The group felt that the development of a common view of the future depended on the group's combined choices around the decision areas highlighted in Figure 5.4.

In essence, a common understanding of the future would require a consensus on:

- the perceived future growth industries;
- the Company's intended growth rate;
- whether the Company has the required BEE credentials; and
- the choice of markets which the Company plans to pursue.
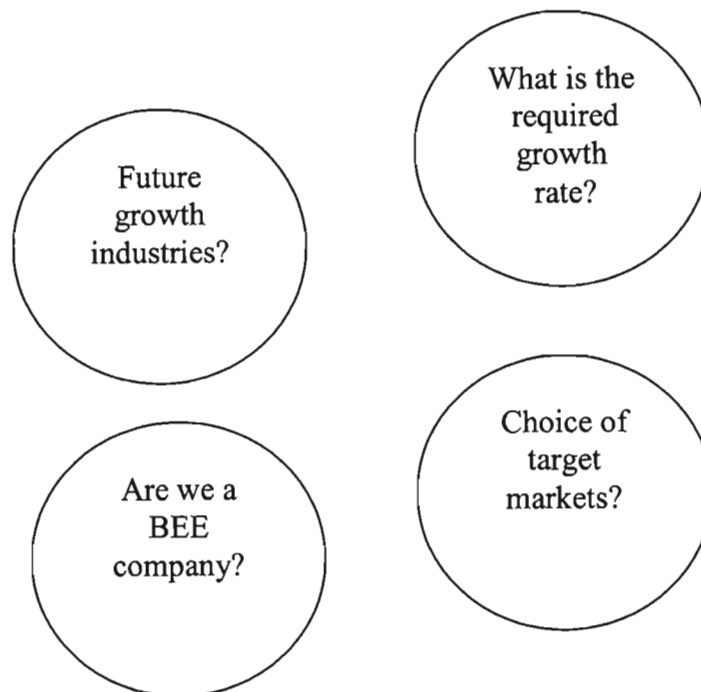
Figure 5.4 – Decision Areas for the Industry Foresight in their Initial Representation.

The process of compiling the decision areas, indicated in Figure 5.4 above, involved extensive discussions and debate about the future of the IT industry, and the anticipated shape which, in the opinion of the participants, the service companies would strive for.

It was noteworthy that the participants felt that a decision on the Company's Black Economic Empowerment (BEE) status was critical as it formed a major part of the Company's acceptability in the market,

particularly if the Company was to continue operating in South Africa. The basis for this is that the participants anticipated legislation that would be aimed at forcing companies to make a contribution towards BEE in the future.

Having defined the decision areas, the group started to brainstorm on relationships amongst the decision areas and agreed on those they believed were important for the development of the industry foresight, at least at this stage of the process.

Figure 5.5, shows a decision graph that was drawn up during the process of developing the industry foresight for the Company. Also, the decision links reflecting the interrelated decision areas identified earlier and the problem focus is depicted on the decision graph formulated during this workshop. The decision links indicated by a solid line reflect the perceived strength of connectedness between the decision areas. Whereas the decision links indicated by a dotted line reflect an existing but relatively weak connection between the decision areas.

The decision area relating to the Company's BEE status was given a solid line due to its high level of importance in the opinion of the working group.

It was also felt that the decisions on the required growth for the Company to meet the anticipated market demands could be left out of the current problem focus. This was based on the need to address the other decision areas on the grounds of importance, urgency and connectedness within the overall decision graph.

The working group felt that the decisions regarding the perceived growth industries, the choice of target markets and whether the Company has the required BEE credentials should allow the group to

develop the shape of the view of the future and, as such, should be the focus of attention in the process of developing industry foresight.
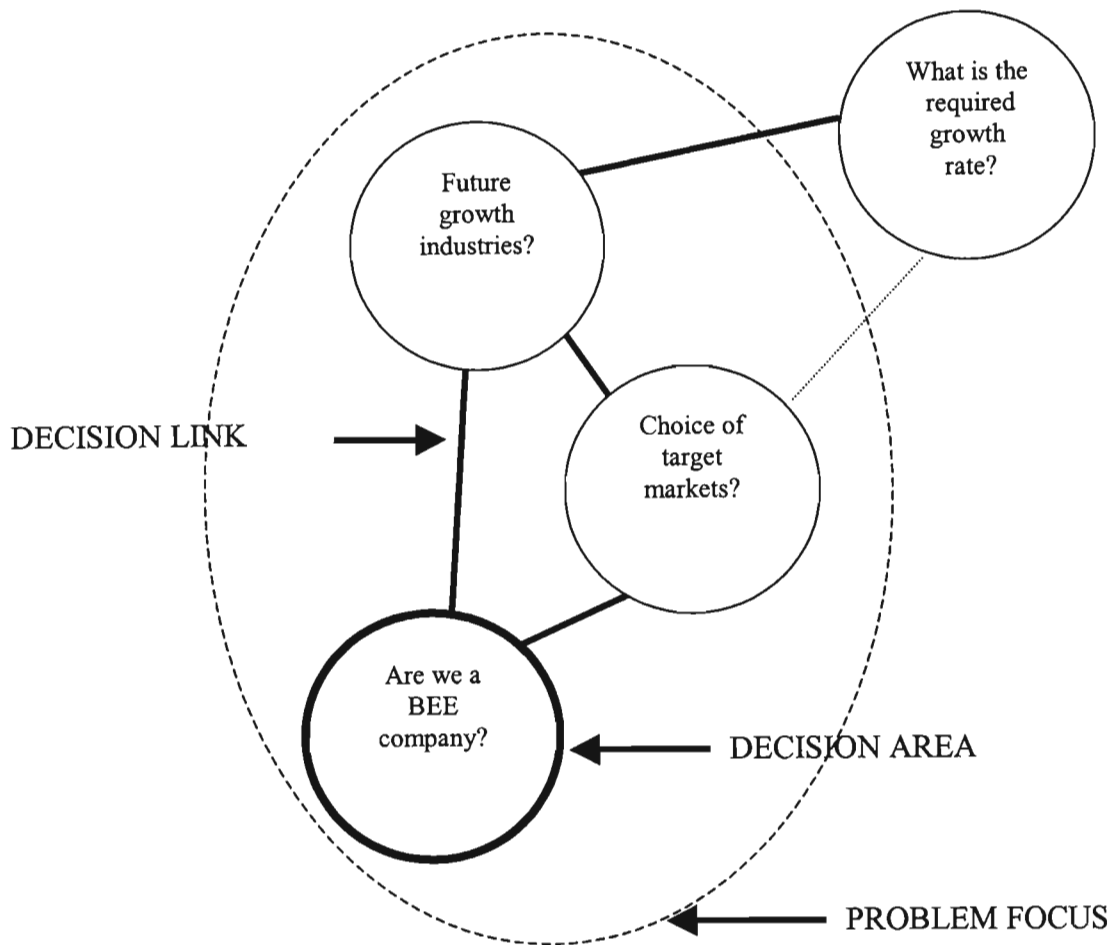
Figure 5.5 – Decision Graph Indicating Decision Areas, Links and Problem Focus Relating to the Industry Foresight.

At this stage, the group was satisfied that it had, as a unit, formed a common view of the extent of the problem of developing the industry foresight. This view, as depicted in the decision graph, was that the decision on the Company's view of the future, rested on the choices to be made only within the decision areas in the encircled problem focus. Nothing else would change the group's view of the future. The next step was to get closer to the specific choices within the chosen area of focus for the definition of the Company's industry foresight.

5.3.2 Designing Industry Foresight for the Company

Having formed a common view of the problem of developing the industry foresight, the Analysis of Interconnected Decision Areas (AIDA) method was applied to explore possible courses of action. The group aimed at arriving at a view of the future within the chosen problem focus.

Following the decision areas identified earlier, the group formulated a set of options representing the range of choices thought to be available within each of the three decision areas contained in the problem focus, already selected, as indicated in Figure 5.5.

Table 5.3 – Options Within the Industry Foresight Decision Areas

Decision Area	Label	Options
What are the anticipated future growth industries?	Industries?	• Telecommunications • IT Services • Both
What will be our target markets?	Markets?	• Private Sector • Public Sector • Both
Are we a Black Economic Empowerment (BEE) company?	BEE?	• Yes • No

Table 5.3 lists the set options chosen within the decision areas in the current problem focus. For ease of reference, labels (using abbreviations of decision areas) were also assigned to the different decision areas identified. The group felt that the decision on the anticipated growth industries would need to consider telecommunications, IT services or both. Similarly, options available

within the other decision areas are reflected under the "options" column. This means that, in the working group's opinion, the future industry within which the Company will need to operate, will be characterised by some of the options presented in the options column in Table 5.3.

At this stage, the group had, by using the AIDA method, identified a range of alternative options available in each of the identified decision areas within the current problem focus. The group subsequently explored whether the options from the different decision areas can be combined. The aim was to come to a set of feasible combinations of options across all decision areas within the problem focus. The combinations which appeared to be incompatible, would be eliminated and the combinations which seemed doubtful, would be highlighted by using the question mark sign ("?").

Table 5.4, shows a decision tree indicating the feasible decision schemes (feasible combinations of options) for the chosen problem focus. For ease of reference, all feasible options are assigned sequential alphabetic letters under the "decision scheme" column. The decision areas are abbreviated at the top of the table, using labels defined earlier in the process.

Table 5.4 – Decision Tree Identifying Feasible Decision Schemes for the Chosen Problem Focus of the Industry Foresight

Industries?	Markets?	BEE?	Decision Scheme
Telecommunications	Private Sector	Yes	A
		No	B
	Public Sector	Yes	C
		No x	
	Both	Yes	D
		No x	
IT Services	Private Sector	Yes	E
		No	F
	Public Sector	Yes	G
		No x	
	Both	Yes	H
		No x	
Both	Private Sector	Yes	I
		No	J
	Public Sector	Yes	K
		No x	
	Both	Yes	L
		No x	

It was noted that a number of option bars had to be applied due to some of the option combinations being incompatible. The incompatible combinations ('x'), are based on the group's view that in the future companies will not be able to provide services in the public sector, unless they are able to make a meaningful contribution toward BEE.

At this stage, the group was satisfied that it had effectively explored all the feasible combinations of options for consideration in developing a view of the future. As a unit, the group had successfully designed the

industry foresight through identifying the set of feasible decision schemes for later comparison. The next task was to define criteria against which each of the feasible choices would be measured to determine their relative contribution in comparison with the group's view of the future.

5.3.3 Comparing Feasible Options for Developing Industry Foresight for the Company

Having identified a set of feasible options available for consideration in the development of the industry foresight, the concept of comparison areas was introduced.

The introduction of comparison areas was aimed at developing group consensus on the criteria that would be used to compare the identified options. These were identified by the participants as areas of concern within which they would compare alternative courses of action.

The comparison areas identified by the group were:

- alignment to global IT trends; and
- impact on current service offerings.

For the purpose of getting a closer perspective and insight into the overall process, the group decided to compile a *working shortlist,* including decision schemes A to H from Table 5.4, of possible combinations. The idea was to analyse this shortlist closely with the aim of getting a view of the group's preference based on the alternatives contained within the selected shortlist. The group's view based on this shortlist would not be definitive, but would provide for an initial feel of its collective view of the shape of the future of the industry.

For a closer perspective and insight on the group's views, the group compared the schemes within the selected shortlist, two at a time, using the judgment scale of *comparative advantage* between the identified two alternatives.   The idea was to compare a pair of schemes against each of the agreed comparison areas. The group decided not to perform the detailed analysis on all the decision schemes within the shortlist because the results of the analysis of schemes E and F would provide a general feeling for the necessary understanding of the overall balance of advantage that lies amongst the broad range of alternatives.

Figure 5.6 shows the results of the analysis of comparative advantage for schemes E and F as indicated in Table 5.4.
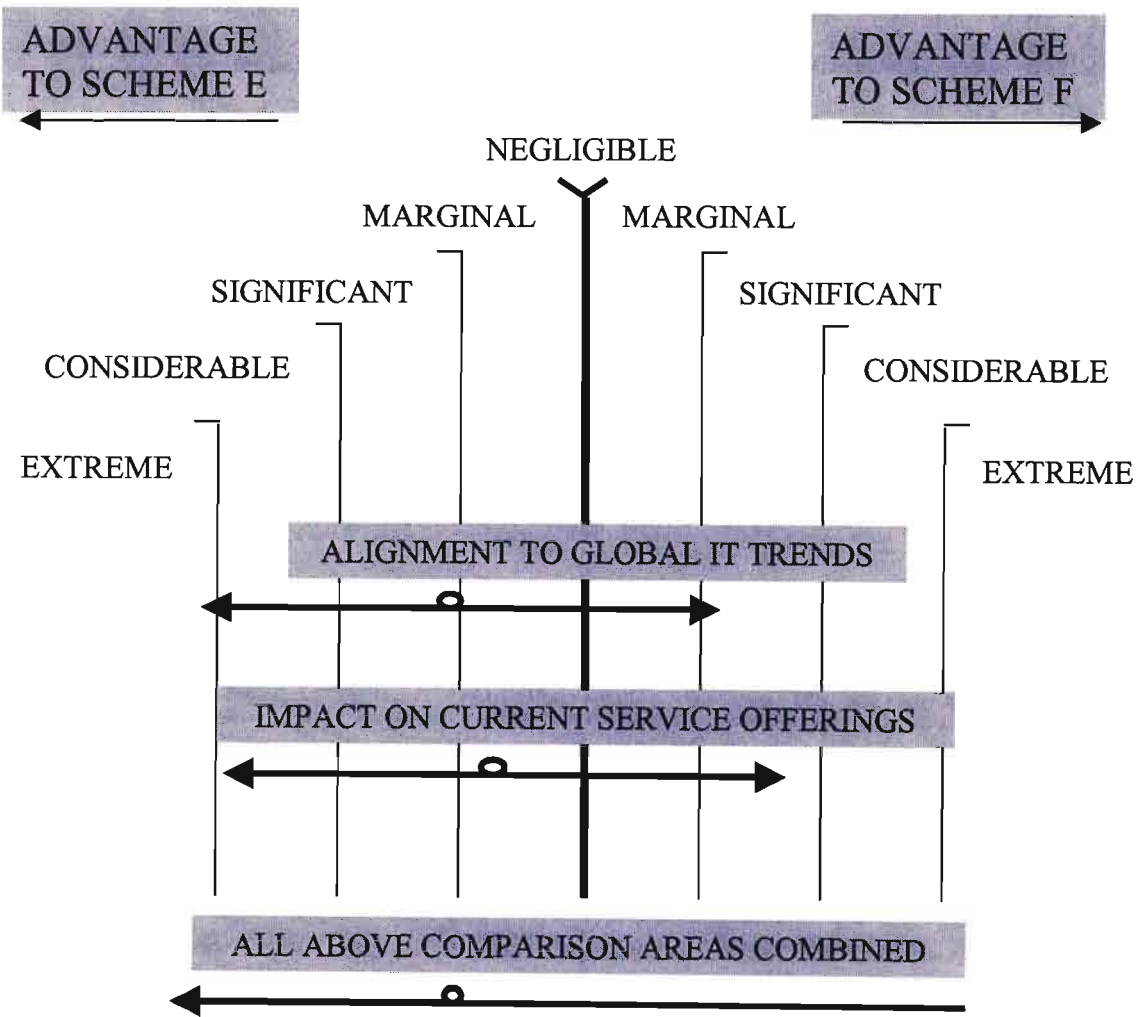
Figure 5.6 – Analysis of Comparative Advantage on Schemes E and F.

Figure 5.6 indicates the group's deliberations in the analysis of schemes E and F across all the comparison areas identified earlier. More specifically, in comparing decision schemes E and F against the comparison area, 'Alignment to Global Trends', using a common scale with successive levels of perceived advantage, (that is, negligible, marginal, significant, considerable and extreme), the group concluded that the balance of advantage was somewhere between marginal and significant, as indicated by the pointer in Figure 5.6.

More specifically, Figure 5.6 depicts how much of an advantage scheme E (a BEE company that provides IT services to the private sector), has compared to scheme F (not a BEE company providing the same services to the private sector), using "Alignment to Global Trends" as a criteria.

This means that the group felt that if the criteria "Alignment to Global Trends" is used, there would be clear advantage in being a BEE company compared to not being a BEE company, when providing the same services to the private sector. This view is indicated on Figure 5.6 by the position of the small circle in the middle of the line with arrows on each side below the criteria being applied.

The same process was undertaken against schemes E and F for the other comparison area, that is, impact on current service offerings. As reflected in Figure 5.6, the results of the combined analysis of schemes E and F against all comparison areas, reflect a marginal balance of advantage towards scheme E. The combined view is reflected by the position of the small circle on the line with an arrow pointing in the direction of the overall balance of advantage.

This exercise gave the group an indication of their collective preference on the options that would form the basis for the industry foresight.

As could be expected at this stage of the process, in an attempt to form preference judgements between different comparison areas, the group highlighted a number of uncertainties that would need to be explored during the decision-making process.

Uncertainties that were brought forward during this exercise, included:

- the need to form a view on the future of IT in relation to telecommunications – Uncertainty pertaining Related decisions fields (UR); and
- the current compliance status of companies with regard to Black Economic Empowerment – Uncertainty pertaining to the working Environment (UE).

The identified uncertainties were recorded and classified accordingly. At the end of the process, all uncertainties that were identified throughout the process, would be collated into a single view and appropriate action for resolution would be assigned.

At this stage, the group was satisfied that it had sufficiently gone through the process of developing a common understanding of the shape of the future of the industry, that is, there is a need for the Company to be aware of global trends, whilst in the process, addressing issues of national importance, such as, BEE.

5.3.4 Consolidation and Reflection on the Process of Developing Industry Foresight for the Company

As a result of applying the techniques for shaping, designing and comparing of the Strategic Choice Approach to develop the industry foresight for Southern Focus, the group concluded that, it is evident that future IT companies operating in South Africa, would need to be aware of and operate in line with global trends. However, companies will have to make a meaningful contribution towards BEE as well.

The areas of uncertainty that came up, had to be addressed in order for the management team to be better informed during the process of comparing different alternatives within the decision areas.

Finally, as far as meeting the objective of this section is concerned, the management team was satisfied that the techniques of Strategic Choice applied, allowing it to create a common view of the future of the IT industry in South Africa.

5.4 Identifying the Company's Core Competencies (Workshop 3)

The facilitator recapped and summarised the activities and reflections from the previous workshops and painted a clear picture as to the stage of current focus relative to the overall strategy development process.

For this workshop, the objective was:

To identify the underlying integrated bundles of skills and technologies which are competitively unique and re-deployable.

As with the previous workshops, to assist the decision-making process within this phase of the Core Competence Approach to strategy development, selected techniques of the Strategic Choice Approach were applied. These were techniques for shaping, designing and comparing.

5.4.1 Shaping the Company's Core Competencies

During this part of the workshop, the emphasis was placed on identifying the decision areas within which the participants believed the process of identifying the Company's Core Competencies revolved around.

During this stage of the process, participants brainstormed issues around a comprehensive definition of the Company's core competencies. At the same time, the participants discussed issues relating to the competencies necessary for the Company's success.

Figure 5.7 shows the decision areas that were identified by the working group through a brainstorming process.
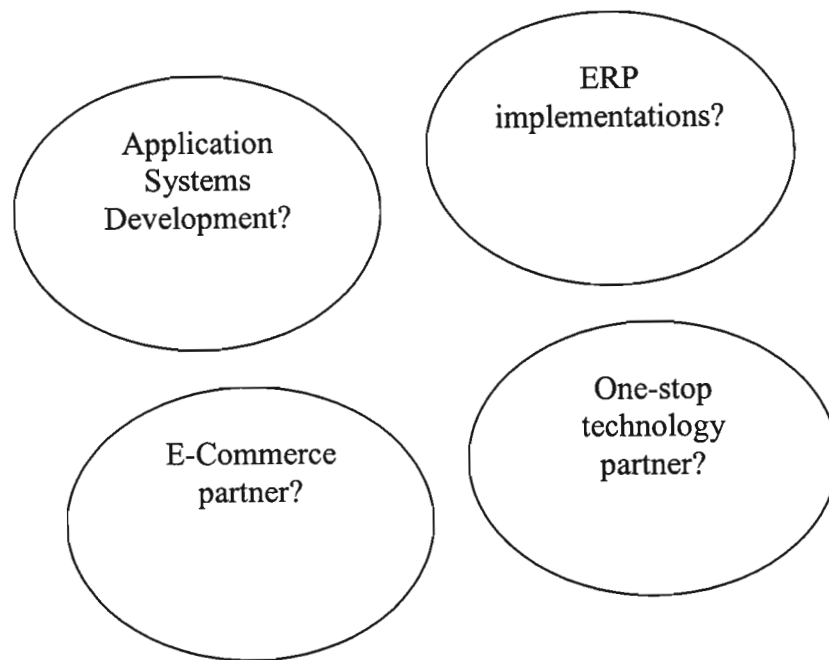
Figure 5.7 –   **Decision Areas for the Definition of Core Competencies in their Initial Representation.**

The process of compiling the decision areas indicated in Figure 5.7 involved extensive discussions and debate about the future of the Information Technology industry and the areas of competence that the Company would need to develop and maintain in order to play a leadership role in the area of IT service provision in the future.

Figure 5.8 shows a decision graph that was developed during the process of identifying current and future core competencies for the

Company. Decision links and problem focus aspects were also discussed and included in the graph.
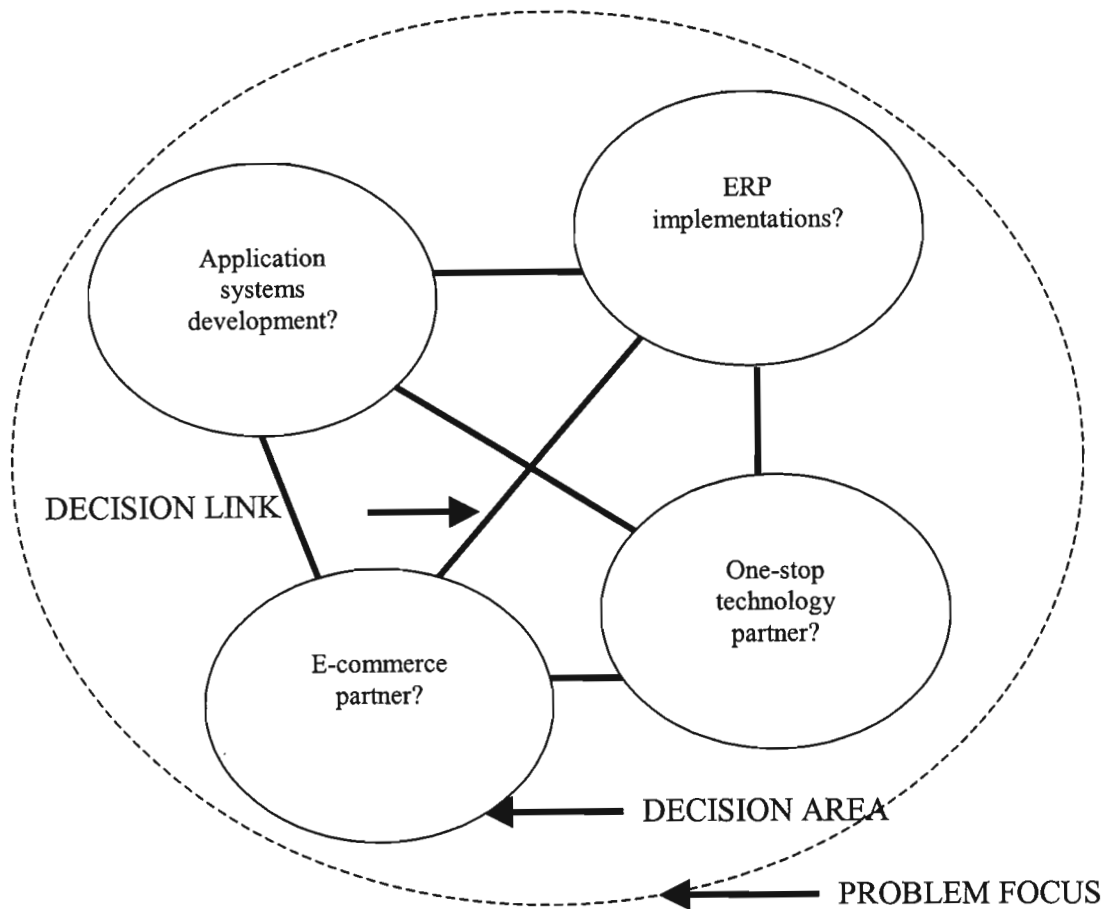
Figure 5.8 – Decision Graph Indicating Decision Areas, Links and Problem Focus Relating to the Core Competencies.

The decision links indicated by a solid line, reflect the perceived strength of connectedness between the decision areas.

It was felt that, on the grounds of connectedness of the decision areas within the overall decision graph, all identified decision areas needed to be dealt with within a single problem focus. The group also felt that all identified decision areas had similar levels of importance and required similar attention in as far as urgency for resolution was concerned.

In general, the participants felt that the Company needed to develop and maintain competencies around four broad areas of IT service provision and would strive to be recognised by the industry as one of the leaders in these areas.

The group was satisfied that it had as a unit formed a common view of the shape of the competencies that the Company requires to build in the future. This view, as depicted in the decision graph, was that the decision on the Company's core competencies rested on the choices to be made only within the decision areas in the encircled problem focus. The next step was to get closer to the specific choices within the chosen area of focus for the identification of the Company's core competencies.

5.4.2 Designing the Company's Core Competencies

Following upon the decision areas identified earlier, the group formulated a set of options, representing the range of choices available within each of the four decision areas contained in the problem focus. Table 5.5 lists the set of options available in the decision areas in the problem focus.

On reviewing the options developed, the group felt that the areas of competence identified, were too broad and would possibly cause the Company to be unfocused if all the identified areas were to be developed. As a result of these discussions, the options were reduced to those that the group felt created sufficient focus whilst allowing for service diversification in the future. For example, the Company as a 'one-stop' technology partner defeated the objective of being a focused company. As a result, the decision area was dropped.

Table 5.5 – Options within Core Competencies Decision Areas

Decision Area	Label	Options
Application Systems Development?	Develop?	• Microsoft Technologies • Oracle Technologies • Both
ERP Implementations?	ERP?	• SAP Implementer • Oracle APPS Implementer • JDE Implementer • Both
E-Commerce Partner?	E-comm?	• Yes • No
One-stop Technology partner?	Onestop?	• Yes • No

The Company's final commitment to competency development will focus on some of the options reflected in the "options" column in Table 5.5.

Having identified a range of alternative options available within each of the identified decision area within the current problem focus, and using the AIDA method, the group explored whether the different options from the different decision areas can be combined. The idea was to arrive at a set of feasible combinations of options across all decision areas within the problem focus. Those combinations that were perceived to be incompatible, would be eliminated and those that were perceived to be doubtful, would be highlighted using the question mark sign ("?").

Table 5.6 shows a decision tree indicating the feasible decision schemes (feasible combinations of options) for the chosen problem focus. For ease of reference, all feasible options are assigned sequential alphabetic letters under the "decision scheme" column. The decision areas are abbreviated at the top of the table using labels defined earlier in the process.

Table 5.6 – Decision Tree Identifying Feasible Decision Schemes for the Chosen Problem Focus of the Core Competencies

Develop?	ERP?	E-Comm?	Decision Scheme
Microsoft Technologies	SAP Implementer	Yes	A
		No x	
	Oracle APPS Implementer	Yes	B
		No x	
	Both	Yes ?	D
		No x	
Oracle Technologies	SAP Implementer	Yes	E
		No x	
	Oracle APPS Implementer	Yes	F
		No x	
	Both	Yes ?	G
		No x	

Table 5.6 – Decision Tree Identifying Feasible Decision Schemes for the Chosen Problem Focus of the Core Competencies (continued...)

Develop?	ERP?	E-Comm?	Decision Scheme
Both	SAP Implementer	Yes	H
		No x	
	Oracle APPS Implementer	Yes	I
		No x	
	Both	Yes ?	K
		No x	

A number of option bars had to be applied, because some of the option combinations were incompatible. The incompatible combinations are indicated by ('x') based on the group's view that these options are not realistic, for example, e-commerce partnership will be mandatory in IT companies in the future.

Also, there are doubtful compatibilities (indicated by '?') based on the knowledge that the software vendors of ERP application may have problems with companies promoting competitive products. This had been raised during the workshop on defining the Strategic Intent for the Company.

The group was satisfied that it had effectively explored all the feasible combinations of options for developing the Company's core competencies. The group had successfully designed the Company's core competencies by identifying the set of decision schemes for later comparison. The next task was to define criteria against which each of the choices would be measured to determine their contribution toward developing the required competencies.

5.4.3 Comparing Feasible Options for the Company's Core Competencies

The participants identified comparison areas of concern within which they would compare alternative courses of action. The comparison areas identified were:

- Anticipated Future Demand; and
- Access to Skills.

For the purpose of getting a perspective and insight into the overall process, the group decided on a *working shortlist* of feasible combinations, from Table 5.6, and to identify two schemes at a time for comparison, using the judgment scale of *comparative advantage* between the identified two alternatives.

Figure 5.9 shows the results of the analysis of comparative advantage for schemes A and B as indicated in Table 5.6 above.

Figure 5.9 indicates the group's deliberations in the analysis of schemes A and B across all the comparison areas identified earlier. More specifically, in comparing decision scheme A and B against the comparison area, 'Anticipated Future Demand', (using a common scale with successive levels of perceived advantage, that is, negligible, marginal, significant, considerable and extreme), the group concluded that the balance of advantage was significant, as indicated in Figure 5.9.

More specifically, Figure 5.9 depicts how much of an advantage scheme A (an e-commerce company that develops using Microsoft Technologies with a SAP ERP focus), has compared to scheme B (an e-commerce company that develops using Microsoft Technologies

with an Oracle ERP focus), using "Anticipated Future Demand" as criteria.

Thus, the group felt that, if the criteria "Anticipated Future Demand" is used, it would be more advantageous for the Company to operate as an e-commerce company using Microsoft Technologies with a SAP ERP focus, than an e-commerce company using Microsoft Technologies with an Oracle ERP focus.

The same process was repeated with schemes A and B for the other comparison area, that is, access to skills. As can be seen in Figure 5.9, the results of the combined analysis of schemes A and B against the two comparison areas reflects a significant advantage towards scheme A. (The view is reflected by the position of the small circle in the middle of the line with arrows on each side below the criteria being applied.)

The group decided not to perform the detailed analysis on all the decision schemes on the shortlist because the general consensus was that the results of the analysis of schemes A and B provide the necessary understanding of the overall balance of advantage that lies in the broad range of alternatives. This exercise gave the group an indication of their collective preference on the options that would form the basis for the Company's core competencies. The combined view is reflected by the position of the small circle on the line with an arrow pointing in the direction of the overall balance of advantage.

As could be expected at this stage of the process, in an attempt to form preference judgements between different comparison areas, the group highlighted a number of uncertainties that would need to be addressed during the decision-making process.

ADVANTAGE
TO SCHEME A

ADVANTAGE
TO SCHEME B

NEGLIGIBLE

MARGINAL   MARGINAL

SIGNIFICANT   SIGNIFICANT

CONSIDERABLE   CONSIDERABLE

EXTREME   EXTREME

ANTICIPATED FUTURE DEMAND

ACCESS TO SKILLS

ALL ABOVE COMPARISON AREAS COMBINED
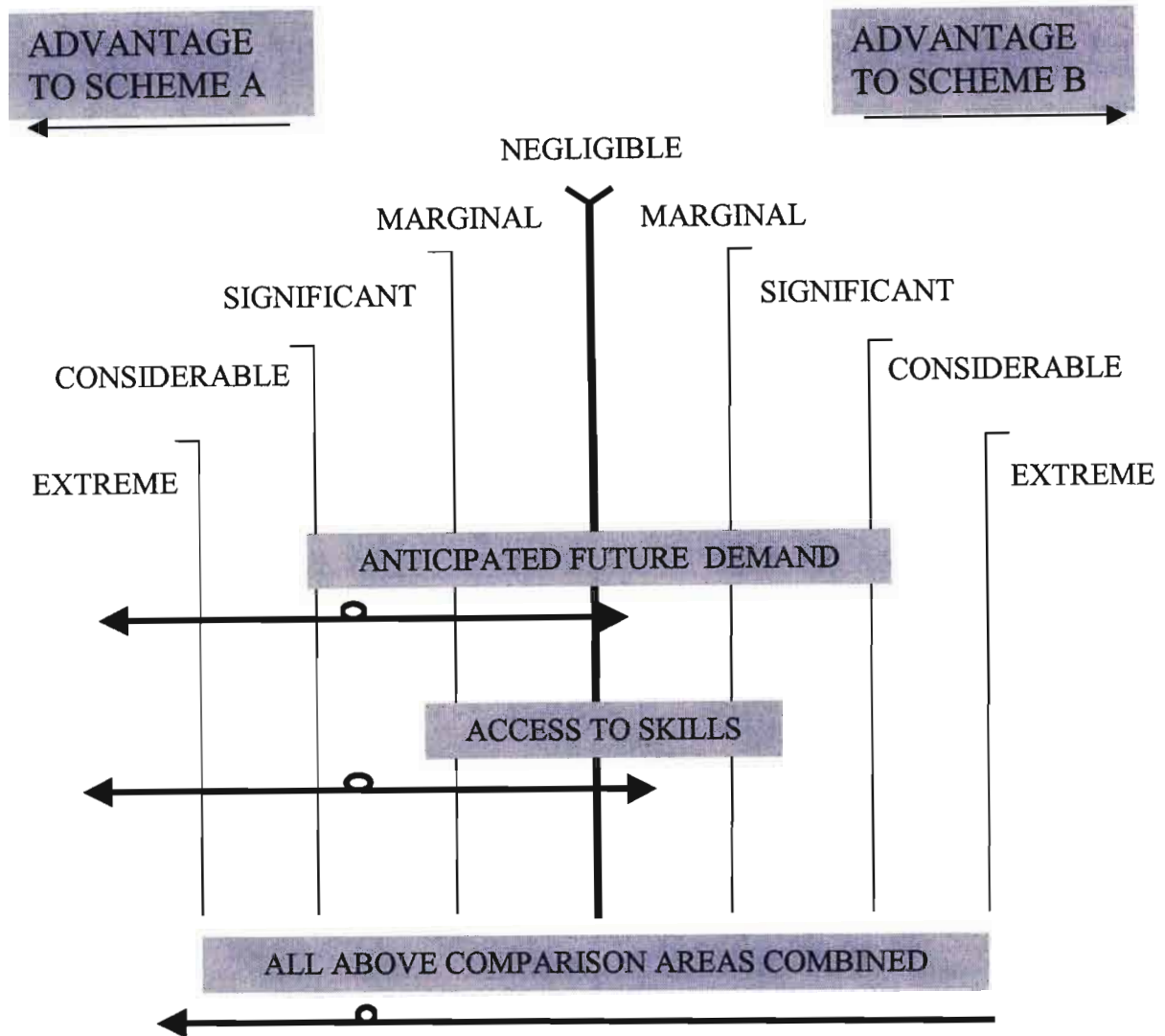
Figure 5.9 – Analysis of comparative advantage on schemes A and B.

The uncertainties that were identified during this exercise, included:

- whether the ERP vendors would support companies promoting competitive products – Uncertainty pertaining to the working Environment (UE); and

- implications of the final outcome of the Microsoft anti-trust case – Uncertainty pertaining Related decisions fields (UR).

These uncertainties were recorded and classified accordingly. At the end of the process, all uncertainties that would have been identified

throughout the process, would be collated into a single view and appropriate action for resolution would be assigned.

At this stage, the group was satisfied that it had sufficiently gone through the process of developing a common understanding of the core competencies that the Company would build and maintain in the future.

5.4.4 Consolidation and Reflection on the Process of Identifying the Company's Core Competencies

As a result of applying the techniques for shaping, designing and comparing the Strategic Choice Approach to develop the core competencies for Southern Focus, the group concluded that it was essential that the Company develop and maintain focused competencies around the selected technology platforms. In this way, the Company had a better chance of securing a leadership position in the future.

The areas of uncertainty will need to be addressed to ensure better understanding by management during the process of comparing different alternatives within the decision areas.

Finally, as far as meeting the objective of this section was concerned, the management team felt confident that the techniques of Strategic Choice applied, allowing it to create a common view of the specific competencies that the Company has to develop for the future.

5.5 Defining the Company's Strategic Architecture (Workshop 4)

The facilitator recapped and summarised the activities and reflections from the previous sessions. Also discussed, was the stage of current focus relative to the overall strategy development process.

For this workshop, the objective was:

To map the pathway to the strategic intent by identifying the corporate challenges needed to develop the functionalities and core competencies.

To assist the decision-making process during this phase of the Core Competence Approach to strategy development, selected techniques of the Strategic Choice Approach were applied.

In developing the strategic architecture, a different approach was applied in this phase compared to the other phases of defining the strategic intent, developing the industry foresight and defining core competencies. The rationale for taking a different approach in this phase, was that in the other phases, the use of the selected techniques of Strategic Choice allowed the group to highlight issues and to develop a common understanding of how these issues played a role in the overall process of developing the Company's strategy.

In developing the strategic architecture, however, the view was that, the group had developed the required common understanding of the desired strategic position of the Company. The only thing that remained was a common method of getting all stakeholders to commit to reach the strategic intent. This goal could be achieved by developing the identified core competencies using the knowledge obtained during the phase of developing the industry foresight. This approach sees the "commitment package" as representing that common commitment which could be viewed as the Company's "strategic architecture" in Core Competence Approach terminology.

During the workshop, emphasis was placed on two aspects of developing the strategic architecture, namely:

- managing uncertainties identified up to this point; and

- developing a commitment package to allow for incremental actions to decision-making.

5.5.1 Managing Uncertainties

Table 5.7 shows the list of uncertainties that had been compiled during the previous three workshops. Their *salience* or relative importance is indicated in relation to all the other uncertainty areas. Those with high levels of salience would require more attention, as they would have a greater impact on the completion of the overall strategy development process. As indicated in Table 5.7, the uncertainties relating to the national procurement policies and the role of telecommunications were found to be important and, therefore, the working group explored options to resolve them.

For example, the pending procurement legislation, taken as a guideline for black economic empowerment as a means of encouraging the participation of previously disadvantaged communities in the overall economy, proved to be an area of major uncertainty. However, it is important insofar as it can affect the Company's strategy when keeping the proposed legislation in mind.

Table 5.7 – Uncertainty Areas Identified Throughout the Process

Uncertainty Area	Label	Type	Salience
?The need to better understand the national procurement policies.	?procure	UV	- - -
?The size of the market for the purpose of evaluating market potential.	?market	UE	- -
?The need to form a view on the future of IT in relation to telecommunications.	?telecoms	UR	- - -
?The current compliance status of companies with regards to BEE.	?BEE	UE	-
?Whether the ERP vendors would support companies promoting competitive products.	?ERP	UE	-
?Implications of the final outcome of the Microsoft anti-trust case.	?Msoft	UR	-

Of equal importance, is the nature of the telecommunication industry, particularly the merger between information technology and telecommunications. Other areas of uncertainty that had been identified throughout the process, do not have as much impact on the overall strategy. Therefore, greater emphasis was placed on the abovementioned in an attempt to resolve them.

In Figure 5.10, we use an uncertainty graph to show a set of different kinds of exploratory options that were identified for the three most salient uncertainty areas that were listed in Table 5.7. Note that the graph reflects all the uncertainty areas compiled during all three workshops.

By studying this graph, management could determine the uncertainties which required more urgent attention as they had a greater impact on the overall strategic plan. On the graph, those closer to the centre have a greater impact than those away from the centre. At the same time, the method of resolving such uncertainties had been agreed on and responsibilities for resolution assigned.

The working group had managed to identify the major uncertainties that, if resolved, would provide useful input into the strategy development process. Figure 5.10 provides a graphical representation of the uncertainties, their classifications, their levels of importance and recommendations on how to deal with the uncertainties. At this stage, the group was satisfied that it had a good understanding of the uncertainties and the method of dealing with them.

5.5.2 The Company's Strategic Architecture

The second phase was devoted to completing the strategic architecture by the compilation of a commitment package. This would form the blueprint for the strategic architecture for the Company. Using information gathered during the previous three workshops and

discussions during the identification of exploratory options towards resolving uncertainties, Table 5.8 illustrates a commitment package that was developed by the workshop participants on decision areas identified during the phase of identifying the Company's core competencies – see Table 5.8
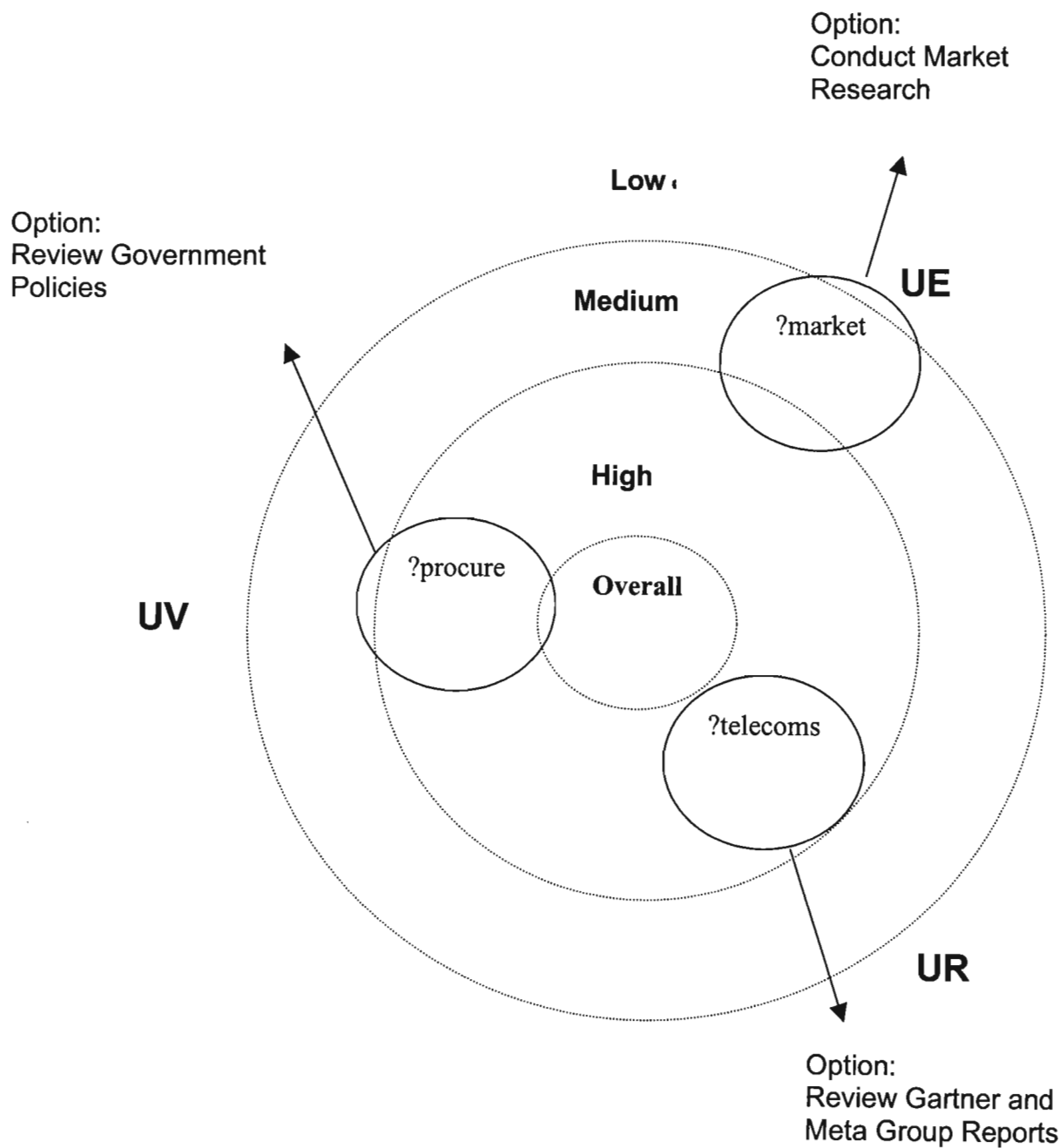

Figure 5.10 – Uncertainty Graph Identifying Exploratory Options

Based on this commitment package, management had a common view of decisions taken. Decisions that could not be made

immediately, were documented and given timeframes for resolution. Where appropriate, contingency plans were determined and documented. Referring to the commitment package in Table 5.8, the "Decisions Now"-columns reflect specific decisions that were made in relation to the different areas of competence necessary for sustainable competitive advantage for the future. These areas depict the pursuit of excellence in systems development, implementation of ERP solutions and implementation of e-commerce solutions. For example, in the area of systems development, a decision was made to immediately put together a skills development plan for Oracle technologies. In the ERP area, a decision was made for the Company to immediately register as a SAP partner while investigating the option of including other ERP solutions as part of the Company's ERP product set. Regardless of the results of the exploration exercise for ERP solutions it was decided that, as a contingency, SAP would be the primary ERP product of choice.

The "Future Decision Space" columns, on the other hand, reflect tentative decisions made which could change at a later stage, depending on the results of the agreed investigations while keeping in mind possible changes to market demands. For example, in the areas of e-commerce, it was agreed that the case in the United States against Microsoft might change the way e-commerce is approached. As a result, the Company should focus Microsoft related e-commerce initiatives on SMME clients.

Similar packages were developed from the workshops for the strategic intent and industry foresight components of the Core Competence Approach to strategy development. These can be seen in Appendices F and G, respectively.

Finally, all these commitment packages were collated into a single package that formed the blueprint for the overall strategic architecture for the Company.

Table 5.8 – Commitment Package from the Core Competencies Workshop.

	Decision Now		Future Decision Space	
	Actions	Explorations	Deferred Choices	Contingency Planning
Development	Start putting together plans for the development of Oracle Technologies competencies			
ERP	Register as SAP implementation partner	Investigate the ability to promote multiple ERP solutions		Stick to SAP as ERP of choice
E-commerce			Depending on the outcome of the MS anti-trust case, decide on whether MS should be the primary e-commerce environment	Focus MS development to SMME clients

The working group was positive that it had successfully combined all the results of the conducted workshops into a single strategic architecture that would drive the Company's strategy in the future.

5.5.3 Consolidation and Reflection on the Process of Defining the Company's Strategic Architecture

The process of defining the strategic architecture involved the consolidation of all proceedings of the workshops where the strategic intent, the industry foresight and the core competencies were defined. Particularly, all the uncertainties that came to the fore during these workshops, were collated and a plan of action decided on to resolve them.

Finally, decisions were made on specific decision areas that had been identified during the process. These decisions were collated into a single commitment package that would serve as the blueprint for the Company's strategic architecture. As reflected in the sample commitment package that was developed for the core competence component of the strategy development process, decisions that could be made, were documented. Those that required further exploration were noted and contingency plans were identified, where appropriate.

Having developed the blueprint for the strategic architecture, the working group had successfully developed a common path that would form the basis for the Company's strategy into the future.

5.6 Reflective Commentary on the Overall Strategy Development Process

The actions and decisions incorporated in the commitment package during the strategy development process were implemented with immediate effect at Southern Focus. As part of the Company management's commitment to decisions made, it was agreed that the management team would meet once a month to revise and further commit to new actions towards meeting the Company's strategic intent. However, this case study on the application of the suggested framework as a means of guiding the strategy development process ends here. Thus, it is at this point that it may be helpful to reflect on some of the lessons to be gained from the experience. Commentary on the

usefulness of the framework applied during the strategy development process at Southern Focus was provided a few days after the completion of the exercise by the management team that participated in the process. The structure for this review is in line with the format of the questionnaire completed by each participant. See Appendix A.

5.6.1 Ownership of Commitments Made During the Strategy Development Process

The process of developing the strategy for Southern Focus took place at the time when there was general confusion within the management team as to the direction the Company was taking in the light of growth that had been experienced over the past few months. The management team highlighted the following achievements over the period of developing the strategy:

- They learnt more about certain things the Company was involved in, than they had ever been able to in meetings and informal discussions;
- For the first time, they felt that the success of the Company depended on their collective view of issues. Most importantly, each of them believed that the process made them feel part of the future of the Company; and
- The process highlighted the need of each manager to make a concerted effort towards building capabilities within their individual areas of focus.

In general, the participants were satisfied that the results of the process reflected the group's combined view of the strategic direction that the Company should take.

5.6.2   Appropriateness of the Core Competence Approach as Basis for the Strategy Development Process

Overall, the participants felt that the Core Competence Approach to strategy development provided a good framework for structuring the strategy development process. In summary, the participants felt that the competence view of the strategic management process allowed them:

- to focus on innovative ways of enhancing the Company's service offerings. The view was that the size of the Company is, after all, a distinct advantage against some of the larger competitors;
- the freedom to debate issues, learn from others, agree/disagree and finally to develop a common view of the strategic direction of the Company; and
- to be continuously reminded of the aims of the exercise by keeping the objectives of each component in mind.

The group indicated that they found the Core Competence Approach to be an appropriate approach to be used as a strategy-development guide for a knowledge-based company.

5.6.3   Usefulness of the Strategic Choice Techniques as a Supplementary Toolset within a Strategy Development Process

The selected techniques of Strategic Choice assisted management to develop a common view of issues that would need to be dealt with before the specifics of each stage of the strategy development process were finalised. At the same time the different uncertainties that came to the fore were well highlighted and a way of managing these uncertainties was determined.

The selected techniques provided the means for dealing with complexities presented by interrelated decisions. The ability to quickly eliminate alternative courses of action that were not feasible, and focus on those that were feasible, allowed the team to structure their creative thinking around real issues.

Finally, the commitment package put together at the end, served as a tool that could be used to measure individual performance.

The group felt that the Strategic Choice techniques applied throughout the process, allowed the participants to arrive at a common approach to dealing with most of the decisions whilst managing uncertainties in a structured manner.

Overall, one can conclude that through a series of workshops designed around the major objectives of the Core Competence Approach, and applying selected techniques of Strategic Choice, a small information technology company can arrive at a comprehensive and well thought through strategic plan that can work as a dynamic tool for on-going strategy monitoring.

CHAPTER 6

CONCLUSION OF DISSERTATION

Lack of effective strategic planning is one of the areas that is widely considered as being a problem in small organisations, yet small organisations play a significant role in the economy and are expected to play a significant role in creating employment opportunities worldwide. The IT industry continues to experience unprecedented growth in terms of wealth creation and innovation globally. Small IT companies continue to play an important role in initiating some of the major innovations seen in recent years. Yet, despite great ideas generated by small IT companies, some of these companies do not succeed, partly because of inadequate strategic planning systems and, partly, due to limited access to financial resources, commonly experienced by small companies. It is mainly for this reason that this research seeks to provide a framework aimed at enhancing the strategic planning processes of small companies in the IT sector by suggesting a method and toolset that would allow for the process to effectively deal with strategic management challenges, characteristic of the industry. This research, does not however, attempt to deal with the challenge of access to financial resources experienced by the SMME industry.

Chapter 2 of this dissertation covered an in-depth assessment of Southern Focus's innovation capabilities. This exercise highlighted some of the typical challenges faced by small companies in the IT industry. At the same time, it highlighted the urgent need for a strategic planning framework specifically tailored for small IT companies. This dissertation recognises that the suggested framework could be used successfully by small companies outside the IT sector. Another reason for the urgency in developing a strategy development framework for small companies, particularly in the IT industry, is that unlike most industries, this industry currently experiences strategic management issues mainly highlighted by the growth, diversity and the rate of change in technological trends, as well as the temporary reduction of interest towards IT, due to the recent recession in the world economy.

Some of the principles necessary for a good framework for a strategy development process of a small IT company, include emphasis on the key elements of the strategic management process. This will provide a conducive environment for debate, learning and experimentation while making incremental decisions, recognition of different stakeholder expectations, regular review of decisions made and provision of a link to major components of the company's business plan. This final chapter shall attempt to highlight the achievements of the research and some directions for future research.

6.1   How the Goals of the Research were Achieved

The goals of this research were made clear in Section 1.2 of this dissertation. The main goal of the research was to develop a framework for strategy development for a small IT company. Section 1.4 of this dissertation discussed the research approach and the methodological principles that guided this research towards the attainment of this goal. The essential elements of the research approach were justified on the basis of the triad for the justification of research including the research aim, the theoretical foundation and research methods. (see Figure 1.1, Robey (1996:103)). The method of research was action research as outlined by Checkland and Holwell (1998:104). This section shall attempt to explain how the goals of this research were achieved in the context of these essential elements.

The first sub-goal was an investigation into the factors affecting the strategic planning process within small organisations. As part of this investigation, an analysis of unique features of small businesses in the IT industry was performed. The method used to achieve this, was firstly an analysis of the role of small businesses in the economy and some of the strategic management issues affecting them. Secondly, a detailed assessment of a small company's innovation capabilities was performed using Burgelman et al's. (1988:130) "Innovative Capabilities Audit Framework". Input to the audit exercise was provided by the management

team and the audit was performed for each of the business units and finally at corporate level. The aim of this assessment was to highlight the strategic management issues associated with small IT companies in their pursuit of innovation initiatives. By performing this assessment on Southern Focus, it was possible to acquire insight into challenges presented by the operating environment within which a typical small IT company operates. The information gathered from this exercise was presented and analysed in Chapter 2 of this dissertation.

The following sub-goal focused on the investigation and analysis of suitable methodologies and techniques of strategic management with the view of identifying their appropriateness for a strategic planning process for a small IT company. In order to achieve this sub-goal, it was necessary to explore other theories geared towards decision-making processes to determine their potential contribution towards this strategic planning process. The most important output of Chapter 3 was that the strategic planning process of a small IT company, required an approach that has sound strategic management principles while creating an environment for debate, discussion, experimentation and incremental decision-making on a regular basis. The importance of managing stakeholder expectations was highlighted and techniques for assisting the process were explored as well.

The stage was now set for the achievement of the main goal of this research, that is, the framework for developing a strategy for a small IT company. In achieving the third sub-goal, the author began to put together elements of the strategy planning framework based on the investigations performed in Chapter 2 and, some of the typical strategic planning issues that were highlighted from the assessment of Southern Focus, detailed in Chapter 2. Implicit in the achievement of the main goal of the research, is the theoretical and practical validation of the framework, which was covered in Chapter 5.

To achieve the fourth sub-goal, a case study was used for the practical verification that the main goal of the research was achieved, and that it met with the main requirement: that the framework will enhance the strategic planning processes within a small IT company. The Southern Focus case study, together with the evaluations of the process and the framework, was covered in Chapter 5.

The results of the evaluation of the strategy development process and the framework by the participating management team, are indications that the practical validation of the framework was successful.

6.2   The Theoretical and Practical Contribution of this Research

This research claims to have made a theoretical and practical contribution to the strategic management methods for small IT businesses. Research into strategic management methods indicates that although conventional methods recognise peculiarities associated with small businesses, a great deal of work still needs to be done to assist the strategic management processes of small IT businesses. Conventional strategic management methods focus on the high level principles of the strategic management process but not enough on the techniques for facilitating strategic decision-making within the strategic management process. In this research, emphasis was placed on allowing the management of a small IT company to make shared incremental decisions in anticipation of rapid changes within the IT industry while being guided by a suitable strategic planning framework. The theoretical contribution of this research, therefore, includes the formulation of the framework for strategy development of a small IT company combining the strengths of the process in the Core Competence Approach with specific techniques from Strategic Choice. The framework was based on the analysis and critique of the literature and current practice in strategic management. In addition, the framework itself is a learning tool,

and it is, therefore, envisaged that new knowledge or new insights will be gained as the framework is applied to different strategic planning situations.

The framework itself is a practical contribution to the IT sector, in general. The practical benefits of the framework were evident in the four workshops that were conducted. It was clearly demonstrated through the workshops, how the framework helped to facilitate the strategic planning process within a small IT company.

6.3   Directions For Possible Further Research

Prospects for possible further research are:

- The scope of this research only covered the initial application of the strategy development framework within a small IT company. It did not cover the on-going regular reviews of the strategy developed, which are emphasised as a means of timeously responding to changes in market conditions. Research on the applicability of the suggested framework for the process of reviewing the strategy developed, would possibly find a need for additional tools to facilitate the process.

- Another possible field of research, is to determine how this framework would fit a large company or how it would fit in other low-tech industries.

- One of the important things that were highlighted in Chapter 4 was the importance of a business plan for a small company. The business plan is often a requirement in situations like application for finance, mergers and acquisitions. It would make sense for the strategy development process, not only to produce a strategy for the company, but also to link it to the production of all or some of the major elements of the business plan. It is suggested that research be conducted on how this can be achieved by adding additional considerations to the proposed framework.

In conclusion, it can be noted that the proposed framework for strategic planning for a small IT company is systematic as it considers all available resources to the company. It is well focused and highly analytical, due to the inclusion of Strategic Choice techniques. The framework can be applicable to other high-technology industries, but it is suggested that it be investigated in more detail.

REFERENCES

Ackoff, R. L. (1974). Redesigning the future: *a systems approach to societal problems.* New York: Wiley.

Andreu, R. and Ciborra, C. (1996). Organisational learning and core capabilities development: the role of IT. *Journal of Strategic Information Systems,* **5**, 111-127.

Banville, C., Landry, M., Martel, J-M. and Boulaire, C. (1998). A stakeholder approach to MCDA. *Systems Research and Behavioural Science*, **15**(1), 15-32.

Baskerville, R. L. and Wood-Harper, A. T. (1996). A critical perspective on action research as a method for information systems research. *Journal of Information Technology*, **12**, 235-246.

Berry, M. (1998). Strategic planning in small high tech companies. *Long Range Planning*, **31**(3), 455-466.

Blackler, F., Crump, N. and McDonald, S. (1998). Knowledge, organisations and competition. In: G. von Krogh, L. Roos and D. Kleine (eds). *Knowing in firms*. London: Sage.

Brouthers, K.D., Andriessen, F. and Nicolaes, I. (1998). Driving blind: strategic decision-making in small companies. *Long Range Planning*, **31**(1), 130-138.

Bukula, S. (1998). *Small business research capacity and practice in South Africa*. Pretoria: Ntsika Enterprise Promotion Agency.

Burgelman, R. A., Maidique, M. A., and Wheelwright, S. C. (1988). *Strategic management of technology and innovation*, 2nd edition. New York: Times Mirror Higher Education Group, Inc.

Burgelman, R. A. (1994). Fading memories: a process theory of strategic business exit in dynamic environments. *Administrative Science Quarterly,* **39**, 24-56.

Bygrave, W.D. (1997). *The portable MBA in entrepreneurship.* New York: Wiley.

Checkland, P. B. (1981). *Systems thinking systems practice.* Chichester: Wiley.

Checkland, P. (1995). Model validation in soft systems practice. *Systems Research*, **12**(1), 47-54.

Checkland, P. and Scholes, J. (1990). *Soft systems methodology in action.* Chichester: Wiley.

Checkland, P. and Holwell, S. (1998). *Information, systems and information systems-making sense of the field.* Chichester: Wiley.

Clark, D.N. (2000). Implementation issues in core competence strategy-making. *Strategic Change*, **9**, 115-127.

Daellenbach, H.G. (1996). A comment on Henig and Buchanan (1996). Solving MCDM problems: process concepts. *Journal of Multi-Criteria Decision Analysis,* **5**, 15.

DeSanctis, G., Poole, M., Limayem, M. and Johnson, W. (1990). The GDSS research project: experimental materials summary and general questionnaires. In, *Working papers series*, April.

Duhaime, I. M. (2001). Strategy for the small business. In, *The portable MBA strategy*, 2nd Edition. New York: Wiley.

Dyer, J. and Singh, H. (1998). The rational view: co-operative strategy and sources of organisational competitive advantage. *Academy of Management Review,* **23**(4), 660-679.

Ellis, K. (1995). Critical considerations in the development of systems thinking and practice. *Systems Practice*. **8**(2), 199-214.

Fahey, L. and Randall, R. M. (2001). Strategy for the small business. In, *The portable MBA in strategy*, 2nd edition. New York: Wiley.

Flood, R. L. and Jackson, M. C. (1991). Creative problem solving: *total systems intervention*. Chichester: Wiley.

Flood, R. L. (1995). *Solving problem solving*. Chichester: Wiley.

Flood, R. L. (1996). Total systems intervention, local systemic intervention. In, *Critical systems thinking: current research and practice*. Flood, R. L. and Romm, N. R. A. (Eds.). New York: Plenum.

Fogg, D. C. (1994). *Team based strategic planning: a complete guide to structuring, facilitating, and implementing the process*. New York: AMACOM

Franklin, P. (2000). Doing strategy through culture in knowledge-based organisations. *Strategic Change*, **9**, 129-134.

Friend, J. K. and Hickling, A. (1987). Planning under pressure: *the strategic choice approach,* 2nd Edition. Oxford: Butterworth-Heinemann.

Greiner, L. (1972). Evolution and revolution as organisations grow. *Harvard Business Review,* July-Aug, 98-130

Hamel, G. and Heene, A. (1994). *Competence-based competition*. New York: Wiley.

Hisrich, R. D. Peters, M. P. (1998). *Entrepreneurship*, 4th edition. New York: McGraw-Hill.

Jackson, M. C. (1991a). The origins and nature of critical systems thinking. *Systems Practice,* **4**, 131-149.

Jackson, M. C. (1995). Beyond the fads: systems thinking for managers. *Systems Research,* **12** (1), 25-43.

Jackson, M. C. (1997). Pluralism in systems thinking and practice. In, *Multimethodology: the theory and practice of integrating OR and systems methodologies.* Mingers, J and Gill, A. (Eds.). Chichester: Wiley.

Johnson, G. and Scholes, K. (1999). *Exploring corporate strategy,* 5[th] edition. Europe: Prentice Hall.

Kirk, J. and Miller, M. L. (1986). *Reliability and validity in qualitative research.* University Paper, Qualitative Research Methods, 1. London: Sage.

Landry, M., Banville, C. and Oral, M. (1996). Model legitimisation in operational research. *European Journal of Operational Research,* **92**, 443-457.

Linch, R. (1997). Corporate strategy*: financial times management.* London: Pitman.

Martin, A. P. (1985). The first order of business: *testing the validity of the objectives.* Ottawa: Professional Development Institute.

McKelvey, B. and Aldrich, H. E. (1993). Populations, organizations and applied organizational science. *Administrative Science Quarterly,* **28**, 101-128.

Midgley, G. (1996). What is this thing called CST? In, *Critical systems thinking: current research and practice.* Flood, R. L. and Romm. N. R. A. (Eds.). New York: Plenum.

Midgley, G. (1997). Mixing methods: developing systemic intervention. In *Multimethodology: the theory and practice of integrating OR and systems methodologies.* Mingers, J. and Gill, A. (Eds.). Chichester: Wiley.

Midgley, G. (2000). *Systemic intervention: philosophy, methodology and practice.* New York: Plenum.

Miller, D. and Shamsie, J. (1996). The resource based view of the firm in the two environments: the Hollywood film studios from 1936 to 1965. *Academy of Management Journal,* **39**(3), 519-543.

Mingers, J. (1997a). Multi-paradigm multimethodology. In, *Multimethodology: the theory and practice of integrating OR and systems methodologies.* Mingers J. and Gill, A. (Eds.). Chichester: Wiley.

Mingers, J. (1997b). Towards critical pluralism. In, *Multimethodology: the theory and practice of integrating OR and systems methodologies.* Mingers J. and Gill, A. (Eds.). Chichester: Wiley.

Mintzberg, H. and Quinn, J. B. (1991). The strategy process: *Concepts, Contexts, Cases,* 2nd Edition. New Jersey: Prentice Hall.

Mintzberg, H. (1987). Crafting Strategy, *Harvard Business Review,* July-Aug, 65-101.

Mintzberg, H. (1990). The design school: reconsidering the basic premises of strategic management. *Strategic Management Journal,* as adapted by De Wit, R and Meyer, B (1994) Ibid, 72.

Mosakowski, E. (1998). Entrepreneurial resources, organisational choice and competitive outcomes. *Organizational Science,* **9**(6), 625-643.

Murphy, M. (1996). *Small business management.* London: Pitman.

National Small Business Act, 102, 1996.

Nelson, R. R. and Winter, S. G. (1982). *An evolutionary theory of economic change.* Cambridge: Harvard University Press.

Nolan, R. L., and Gibson, C. F. (1974). Managing the four stages of EDP growth. *Harvard Business Review*, January/February, 76.

Ntsika Agency. (1998). *National small business regulatory review: issue papers,* Pretoria: Ntsika Enterprise Promotion Agency.

Peel, M.J. and Bridge, J. (1998). How planning and capital budgeting improve SME performance. *Long Range Planning*, **31**(6), 848-856.

Prahalad, C. K. and Hamel, G. (1990). The core competence of the corporation, *Harvard Business Review*, May-June, 79-91.

Quinn, J. B. (1988). Strategic change: logical incrementalism. In, *The strategy process: concepts, context and cases.* Quinn, J. B., Mintzberg, H. and James, R. M. (Eds). London and New York: Prentice-Hall.

Robbins, S. P., and De Cenzo, D. A., (1998). *Fundamentals of management: essential concepts and applications,* 2nd Edition. New Jersey: Prentice Hall.

Robey, D. (1996). Research commentary: diversity in information systems research: threat, promise and responsibility. *Information Systems Research*, **7**(4), 400-408.

Rosenhead, J. (1989). Rational analysis for a problematic world: *problem structuring methods for complexity, uncertainty and conflict.* Chichester: Wiley.

Saaty, T. L. (1994). *Fundamentals of decision making and priority theory: with the analytic hierarchy process.* Pittsburgh: RWS Publications.

Savage, G.T., Nix, T. W., Whitehead, C. J., and Blair, J. D. (1991). Strategies for assessing and managing organizational stakeholders. *Academy of Management Executive,* **5**, 61-75.

Silbiger, S. (1993). *The 10-day MBA.* New York: William Morrow and Company.

Thomas, W. (1995). The SMME white paper. *Southern African Journal for Entrepreneurship and Small Business*, May(1), 12-28.

Thompson, A. A. and Strickland, A. J. (1998). Strategic management: *concepts and cases*, 10th Edition. International: McGraw-Hill.

Tsoukas, A. (1993). The road to emancipation is through organisational development: a critical evaluation of total systems intervention. *Systems Practice*, **6**(1), 53-70.

Van Aart, I. and Van Aart, C. (1997). *Entrepreneurship and new venture management.* South Africa: International Thomson Publishing (Southern Africa)

Venkatraman, N., and Ramanujam, V. (1987). Planning system success: a conceptualisation and an operational model. *Management Science*, **33**, 687-705.

Vroom, V. (1974). A new look at managerial decision making. In, *Organizational psychology: a book of readings.* Kolb, D. A. (Ed.). New Jersey: Prentice Hall.

Winter, S. G. (1987). Knowledge and competence as strategic assets. In, D. J. Teece (Ed.), *The competitive challenge.* Cambrigde, MA: Ballinger.

SAMPLE QUESTIONNAIRE
The Green and Taber's instrument: (adapted from DeSanctis et al. (1990))

Directions

We are interested in your views on the framework applied for your company's strategy development process. This questionnaire is composed of 3 statements. Please indicate in the space provided the degree to which each statement applies to you or your group. Indicate your choice by crossing the appropriate marker. There are no right or wrong answers.

Indicate your level of agreement with the following statements.

(1)	(2)	(3)	(4)	(5)
Not at all	To a little extent	To some extent	To a great extent	To a very great extent

1. To what extent do you feel personally responsible for the group's results of the strategy development process?

(1)	(2)	(3)	(4)	(5)

2. To what extent did you find the appropriateness of the application of the Core Competence approach to your company's strategy development process?

(1)	(2)	(3)	(4)	(5)

3. To what extent did you find the usefulness of the use of Strategic Choice techniques within the strategy development framework?

(1)	(2)	(3)	(4)	(5)

EXAMPLE OF A DECISION GRAPH

Explanation

The decision graph below indicates the results of a discussion on:

1. The agreed areas of decision making (decision areas) – reflected by circles around them. A bold circle reflects a high degree of importance placed on the decision area.

2. The perceived interconnectedness of the decision areas (decision link) – reflected by straight lines between the interconnected decision areas. A bold line reflects a high degree of interconnectedness placed on the affected decision areas.

3. The agreed focus of the remainder of the discussions (problem focus) – reflected by a dotted circle around the decision areas that would form the focus of detailed explorations.
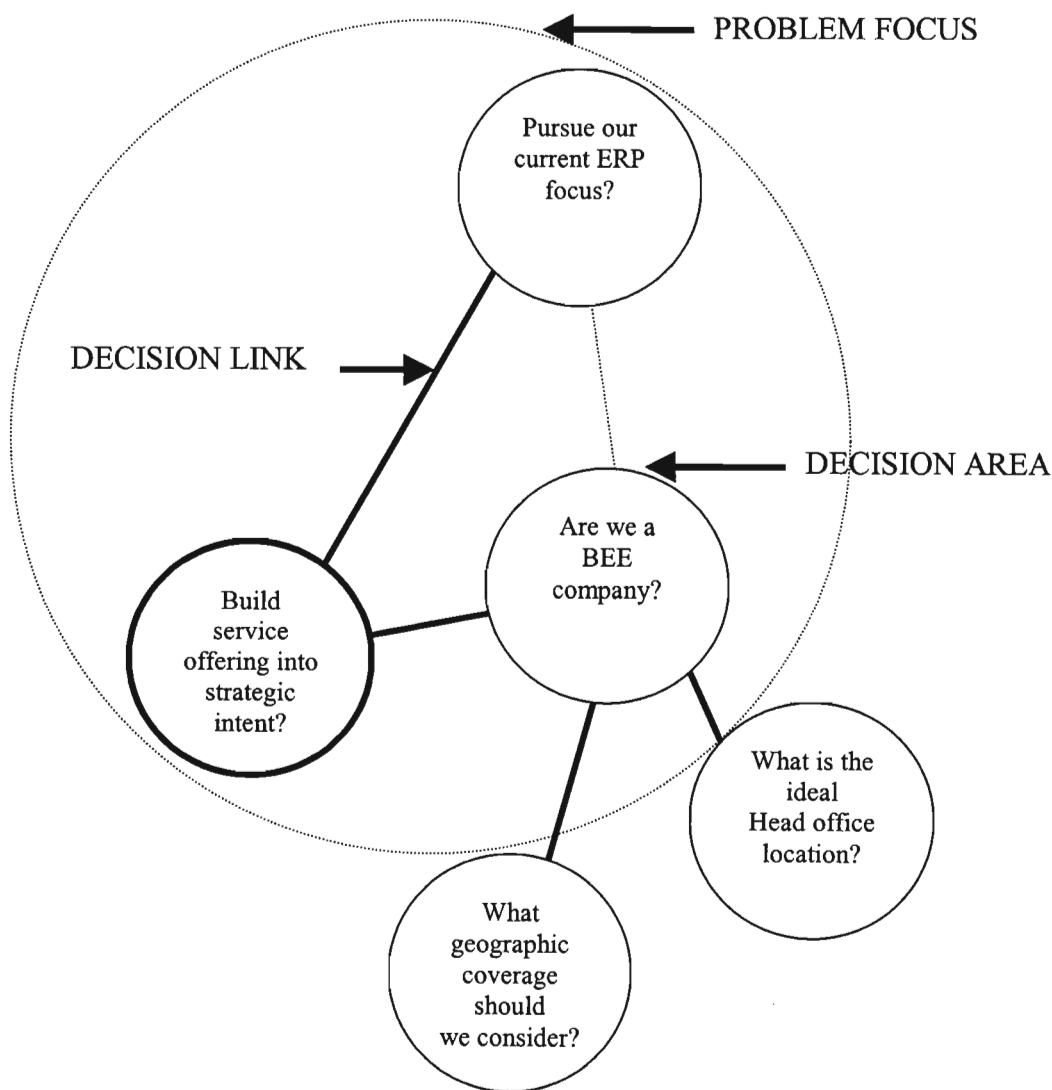
EXAMPLE OF THE ANALYSIS OF INTERCONNECTED DECISION AREAS (AIDA) METHOD

Explanation

The results of the application of the AIDA method reflect all combinations of available options for each of the decision areas within the chosen problem focus. As seen in the table below:

1. All identified decision areas are abbreviated on all except the last column. The Last column (Decision Scheme) is a sequential alphabetical letter assigned to each of the feasible combinations.

2. Mutually exclusive options are listed for each decision area below the relevant decision area column.

3. A question mark ('?') represents a doubtful combination. The letter "x" represents incompatible options. Incompatible options are excluded from further exploration.

4. Each scheme represents a combination of feasible options from all the decision areas. A set of schemes, which form a working shortlist, becomes the subject of comparison against comparison areas later in the process.

Decision Area 1	Decision Area 2	Decision Area 3	Decision Area n	Decision Scheme
Option 1	Option 1	Option 1	Options	A
		Option 2	Options	B
	Option 2	Option 1	Options	C
		Option 2	Options	D
Option 2	Option 1	Option 1	Options	E
		Option 2	Options	F
	Option 2	Option 1	Options	G?
		Option 2	Options	H
Option 3	Option 1	Option 1	Options	I
		Option 2	Options	J
	Option 2	Option 1	Options	K
		Option 2	Options	x

EXAMPLE OF THE JUDGEMENTAL SCALE OF COMPARATIVE ADVANTAGE

Explanation

The results of the application of the judgemental scale of comparative advantage represent the relative impact of a scheme compared to another on a chosen comparison area. It also represents a combined view across all comparison areas. As seen in the example below:
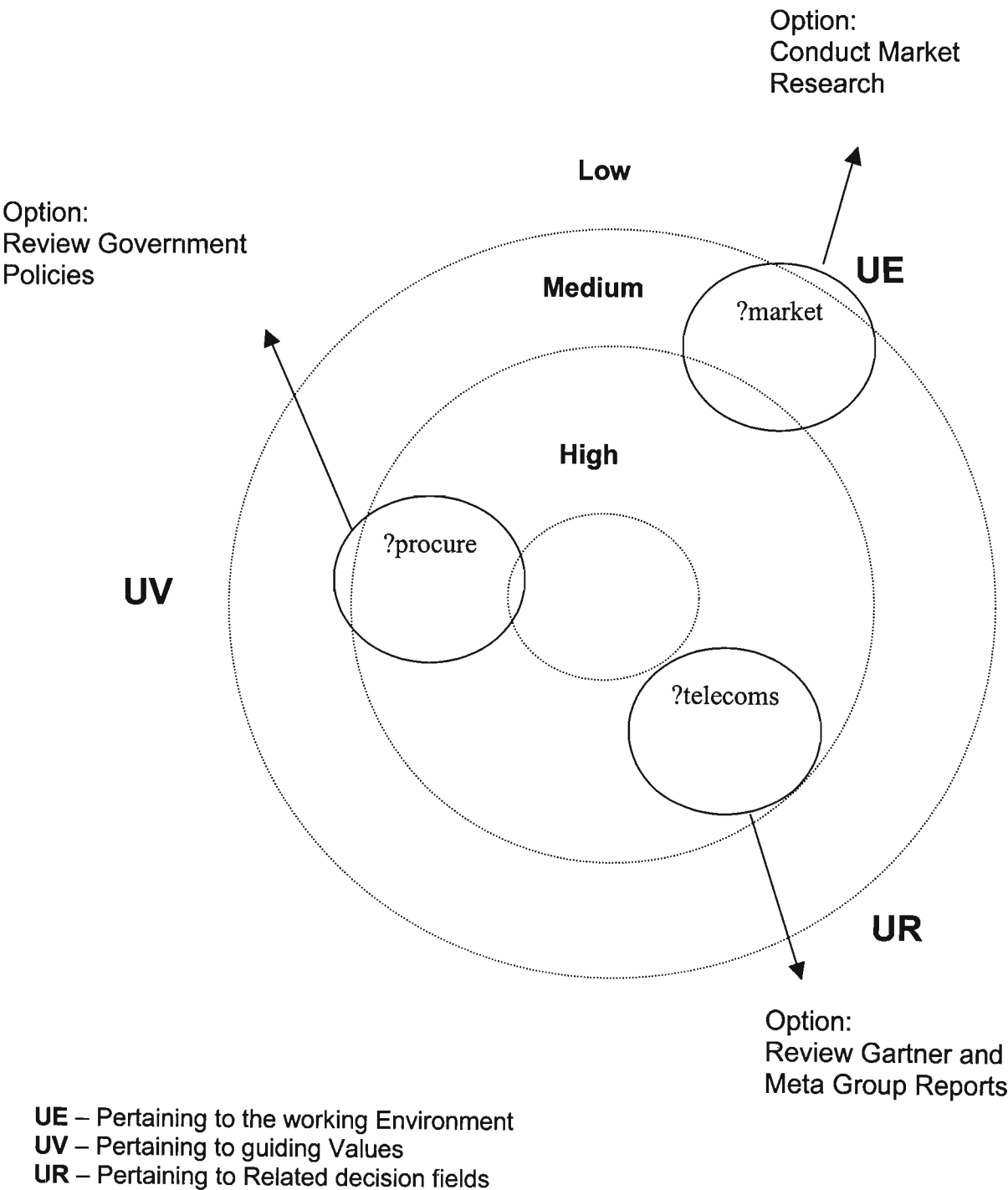
1. Schemes being compared are placed on either side of the scale (on top). Using a common scale with successive levels of perceived advantage, that is, negligible, marginal, significant, considerable and extreme, the result of the comparison is indicated by a mark between a line with arrows on either side, below the comparison area.

2. The overall view of comparisons across all comparison areas is indicated by a mark at the bottom of the scale on a line indicating the overall direction of the balance of advantage.
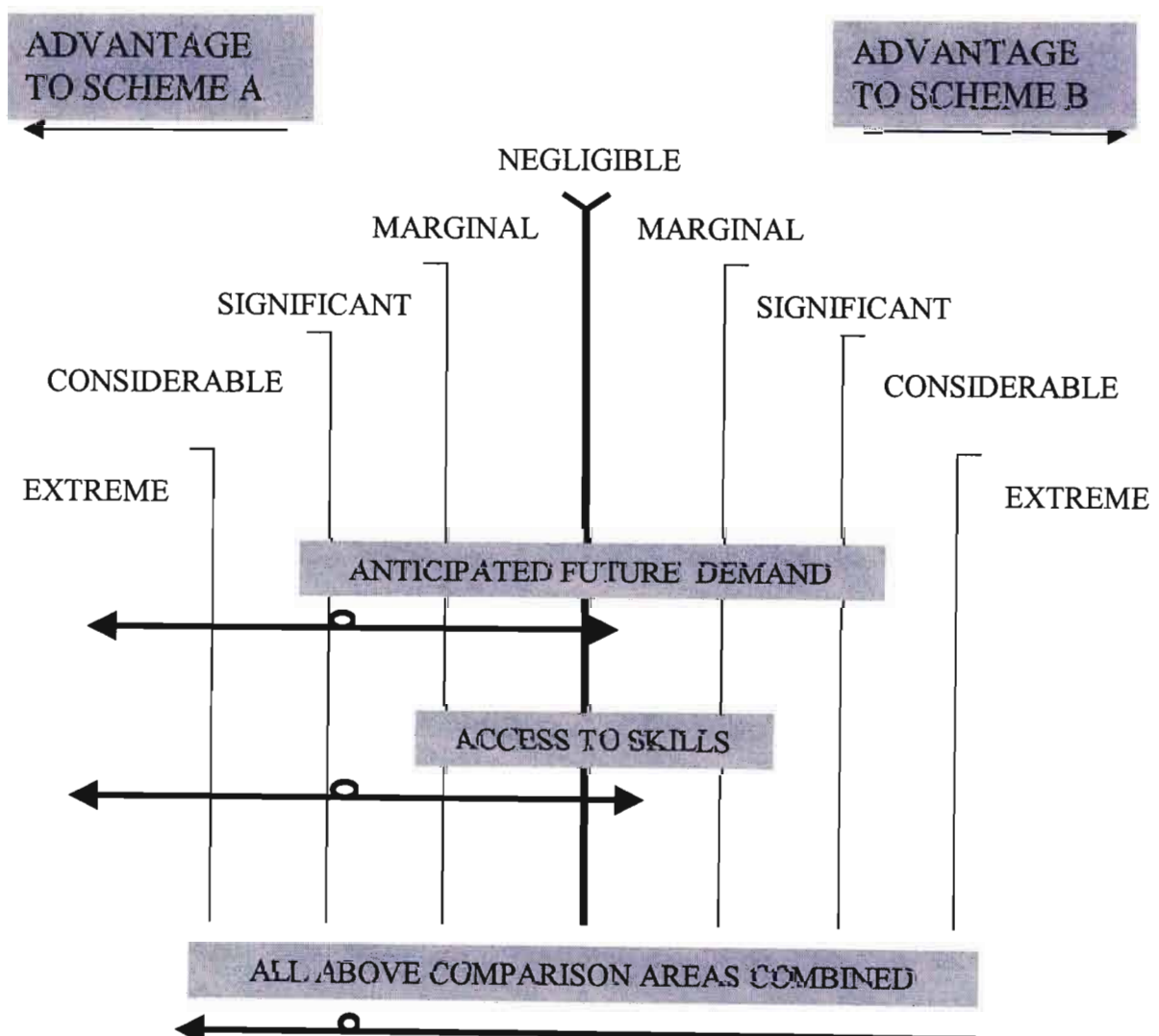
EXAMPLE OF AN UNCERTAINTY GRAPH

Explanation

The uncertainty graph shows a graphical representation of uncertainties and their levels of salience. The levels of salience reflect the group's view of each uncertainty's impact on the overall process. Options to be taken are aimed at reducing levels of salience, that is, from High to Low as seen in the example below. Also, the uncertainty is categorised as being of nature UE, UV or UR and thus requiring appropriate action for resolution.

UE – Pertaining to the working Environment
UV – Pertaining to guiding Values
UR – Pertaining to Related decision fields

COMMITMENT PACKAGE
(Developed for the Strategic Intent phase at Southern Focus)

Explanation

The commitment package reflects decisions made and those to be dealt with more closely in the future. Headings of decision areas are reflected in the first column and decisions made about each of them are reflected across the table.

For the Strategic Intent phase, it was agreed that the ERP focus should be reflected in the company's strategic intent. At the same time, some investigation needs to be conducted on the possibility of partnering with other ERP vendors and on the meaning and implications of government policy on Black Economic Empowerment (BEE).

	Decision Now		Future Decision Space	
	Actions	**Explorations**	**Deferred Choices**	**Contingency Planning**
Growth Industries	ERP focus must be included in the strategic intent	Explore partnership with other ERP vendors		Develop statement of intent – get staff to participate
BEE company			Revisit at a later stage	
Market choice		Explore government policy on BEE.		Develop statement of intent – get staff to participate

COMMITMENT PACKAGE
(Developed for the Industry Foresight phase at Southern Focus)

Explanation

The commitment package reflects decisions made and those to be dealt with more closely in the future. Headings of decision areas are reflected in the first column and decisions made about each of them are reflected across the table.

For the Industry Foresight phase, the issue of BEE again came up. This time, the point was that Southern Focus is currently a BEE company and there was a strong view amongst the participants that it would be of great advantage for companies to have BEE credentials in the future and as such perhaps Southern Focus has to maintain its BEE status. Also, as reflected in the commitment package below, it was decided that the future has opportunities in the IT industry in general and in particular the public sector. However, the telecommunications and private sector need to be pursued for diversification.

	Decision Now		Future Decision Space	
	Actions	**Explorations**	**Deferred Choices**	**Contingency Planning**
Growth Industries	Focus on IT services	Explore telecoms		Start entering the telecoms sector
BEE company		Explore government policy on BEE.		
Markets	Stick with the public sector			Continue to pursue private sector opportunities

A framework for developing a strategy for a small information technology company

SOUTHERN FOCUS – COMPANY PROFILE

Southern Focus is one of the leading consulting and technology solutions companies operating in southern Africa. We focus specifically on the superior delivery of business and Information Technology (IT) consulting services, products and solutions in our target markets. We remain true to our original core focus, and direct our energies towards improving and updating the skills required to provide the finest service.

OUR APPROACH

At Southern Focus, we pride ourselves on our specialist ability to identify, assess and respond creatively to the unique demands of your business. We talk to you. We listen to you. We develop easily manageable tools and highly effective systems to enhance the ability of your business to function optimally in the ever-shifting global marketplace. We design a solution that's functional, feasible and focused on your needs, present and future.

OUR STRATEGY

We consider our strategy to be unique. We've adopted a wholly integrated approach to southern Africa's economic, human resources and technological development needs. In this way, we deliver professional, highly skilled personnel to implement innovative, tailor-made solutions, thereby enabling southern African organizations to break new ground, not remain static. For any progressive organization, innovation and open-mindedness is key. Southern Focus not only embodies those principles in their approach to business, but by equipping you, the client, with the best solutions available, opens your enterprise to a whole new world of opportunities.

OUR SERVICES

- Consulting and Business Process Improvement
- Technology Solutions Management
- Business Solution Evaluation and Deployment
- Key Skills in Project Management, SAP, ORACLE and MICROSOFT technologies.

Our objective at Southern Focus is to partner with our clients. Create a multi-disciplinary team with a single, crystal-clear focus. Together we assess needs and capabilities. Southern Focus designs and implements the solutions to ensure that your business becomes more efficient, competitive and ultra-flexible.

We do IT together.