

**STRATEGIC APPROACHES TO PUBLIC SECTOR PARTNERING IN THE
ACQUISITION, FINANCING AND IMPLEMENTATION OF
X-RAY SCANNER TECHNOLOGY FOR THE INSPECTION OF
CONTAINERIZED CARGO IN SOUTH AFRICA.**

by

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**Submitted in partial fulfillment of the requirements for the degree of
Masters In Business Administration**

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July 2003

- **CONFIDENTIALITY CLAUSE**

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RE: CONFIDENTIALITY CLAUSE

Due to the strategic importance of this research it would be appreciated if the contents remain confidential and not be circulated for a period of five (5) years.


Yours sincerely

A handwritten signature in black ink, appearing to read 'I. Chetty', with a stylized flourish at the end.

I. Chetty

- **DECLARATION**

This research has not been previously accepted for any degree and is not being currently submitted in candidature for any degree.

Signed.....

Date.....25-07-03

- **ACKNOWLEDGEMENTS**

My thanks to the following persons, each of who helped in one-way or another to bring this project to life:

Donny Pethan, for your wisdom, interest and insight;

Kay Chetty, whose encouragement was gold;

Ricki Chapman and Morga Pather, thank you for assisting me with the diagrams;

Sam, Tholsie, Mark and Tessa, my family, for the precious gift of time and putting up with me.

- **ABSTRACT**

Customs administrations, worldwide, are adopting the trend towards risk-based processing of international cargoes as a means of facilitating trade. This has led to the introduction of innovative processes ably supported by technology to realize improvements in customs effectiveness and overall efficiency. Widespread use of e-commerce in trade-customs transactions and exchanges, likewise necessitates complimentary technical support where Customs has need to intervene in a specific import, export or transit consignment.

South African Revenue Service (SARS) is presently developing and enhancing its core competencies through training of its personnel in the disciplines of risk management, anti-smuggling and post clearance audit. It therefore becomes essential that these capacity building initiatives be complimented with the most appropriate tools for conducting cargo examination. The current physical examination process and inspection techniques are both time consuming and costly for business and render the goods liable to damage and theft.

Recent historical events, specifically the 9/11 tragedy in New York, has caused international organizations such as the G8 and World Customs Organization (WCO) to consider the implications and effects of terrorism on international maritime transportation. The G8 adopted a Co-operative Action Plan on Security covering all aspects of transportation security and the WCO adopted a Resolution on Security and Facilitation of the International Supply Chain. Both initiatives aim to ensure safer and more secure maritime trade on the global scale.

Fundamental to SARS Customs ability to successfully implement such measures are the following:

- Availability of advance electronic customs data
- Automated risk profiling and targeting capability
- Availability of non-intrusion inspectional devices (X-ray cargo scanners) to examine cargo.

These three criteria are essential for SARS to participate in supply chain security initiatives and to facilitate the transportation of international consignment. Accordingly this research project explores how the external and internal environment impacts on SARS. It further critically analyses the core competencies and resource strengths of SARS. To support SARS in its effort and in its process of starting a project to improve controls and facilitation of goods at ports of entry within the Republic, this study explores and expounds on infrastructure and business application needs of SARS. Finally the research project concludes with a recommendation of the most effective approach towards the implementation of cargo scanner ‘shared, outsourced service.’

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CHAPTER 1 – INTRODUCTION AND OBJECTIVES OF STUDY

1.1 INTRODUCTION

At border crossings around the world, the allied problems of trade fraud, illicit drug traffic, weapons smuggling and illegal immigration are becoming increasingly serious for the countries involved as we start the next century. Evolving methods for non-intrusive x-ray inspection of cargo offer practical, cost effective tools to help ameliorate these critical problems (Rutan, 2000:1). South African Revenue Service ('SARS') recognizes the urgency of securing global trade, to work expeditiously, in co-operation with relevant international organizations, to develop and implement an improved global container security regime to identify and examine high-risk containers and ensure their in-transit integrity.

Accordingly safeguarding the supply chain cannot be the only concern in securing the future freedom, prosperity and general welfare of South Africa. There will be competing needs and priorities. Budgets and resources will not be unlimited. Yet, establishing new programs, providing the necessary training, conducting additional cargo examinations and acquiring the high technology assets like x-ray scanners and electronic seals for use in this mission will not come cheap (Rutan, 2000: 1).

Faced with rapidly increasing levels of trade fraud and traffic in contraband that, in many cases, threatens to undermine the fiscal and social stability of South Africa, this study undertakes to identify, suggest and evaluate strategies for the acquisition and financing of x-ray scanner technology for the inspection of containerized cargo by the SARS and other interested government agencies. To support the suggested options a strategic framework will also be developed to facilitate successful implementation.

1.2 BACKGROUND AND CONTEXT

The efficiency of the global economy is dependant upon the availability of an efficient and reliable global transportation system. Even with the best efforts the current maritime transportation system is groaning under capacity constraints and congestion in many ports is increasing.

To further complicate matters, container traffic, even with the current global economic slowdown, is predicted to double in the next twenty years. Improving efficiency is one of the key ways to help solve these capacity and congestion problems. Yet efficiency improvements must now be looked at through a security lens. Our transportation system will need to operate efficiently and securely. These twin goals of efficiency and security need to be addressed simultaneously.

In summary, the vast volume of trade and traffic through the nation's ports and across its borders has put immense pressure on the ability to enforce the nation's laws while facilitating international trade, even before September 11th. After September 11th, the challenges have risen to a new level. Notably cargo trade, which is critical to this country's economic strength, continues to move through ports with minimal interruption. It is no surprise that sustaining mobility will come at a higher cost to all as there is tightening of security at borders. The reality is that South Africa is an open society and freedom is cherished. Ultimately, it is incumbent upon the government and the transportation industry partners to find the balance between appropriate security measures and the unimpeded movement of cargo.

1.2.1 CONTAINERIZED CARGO SECURITY

Actions taken to increase transportation security could easily lead to systems inefficiency and unreliability. Today among security advocates, a commonly-cited scenario is the discovery or, much worse, the detonation of a nuclear device hidden inside a container. Such an event would utterly cripple the global containerized cargo network and therefore the world economy. Many countries would immediately insist on inspection of all inbound containers, a request that is simply operationally infeasible given current resources at ports of entry around the world. The logistics would be tremendously difficult to plan and organize and the shipment delays would be intolerable (DOT, 2000:17).

The world's maritime trade is increasing by no less than 5 % each year. This is the result of a substantial increase in globalization. Accordingly there is immense pressure being placed on ports all over the world to increase cargo capacity, improve ship turnaround times and continue delivering world-class service. And nowhere is it

more apparent than in South Africa, where there has been phenomenal growth in exports and imports – by value and tonnage – since 1994, placing pressure on all the ports, but especially the container terminals. The container terminals have experienced an increment of volume of approximately 6 – 7 % each year well above the worldwide watermark (Barnett, 2003:9).

In response to growing concerns the US Customs Service has developed a program to promote security within the global inter-modal transportation system, the Container Security Initiative ('CSI') that was launched on 17 January 2002 (USCS, 2002). Fundamentally the CSI intends to involve foreign ports and associated governing bodies in establishing a worldwide security architecture that will ensure the security of the global inter-modal transportation system with a focus on containerized cargo. The CSI includes four key elements (WCO, 2002:23):

- Establishing security criteria to identify high-risk containers;
- Pre-screening containers before they arrive at US ports;
- Using technology to pre-screen high-risk containers; and
- Developing and using smart and secure containers.

1.2.2 IMPACT ON SOUTH AFRICA

“How will South Africa fit into new modus operandi of being competitive in the global market place?”

In recent times the supply chain has developed into a highly complex and efficient network of producers, carriers, intermediaries, handlers, buyers and facilities that have made expeditious and dependable transit a critical element of a highly competitive and market sensitive global economy. While the multiplicity of entities and diversity of relationships involved are essential to international commerce, it conversely complicates any scheme to tighten security. First order threats to which the supply may provide a means of penetrating our borders and defenses include nuclear, chemical or biological weapons or the capability for their production. Any proposal for enhancing supply chain security must also anticipate attempts to introduce terrorists in conveyances intended for transport of goods (NCBFAA, 2002).

More traditional targets for security interdiction include illicit drugs that help fund terrorism and illegal exports from South Africa of licensed materials and technology. Means to frustrate money laundering and shrink the terrorist footprint are also crucial elements in securing the supply chain.

- **EXAMINE MORE CARGO**

No system of security screening can be relied upon to identify every shipment that potentially poses a risk to national security. Customs was required by law to examine 10% of imports until the late 1960's. Limited resources and heavy reliance on "selectivity" to identify shipment at risk with regard to commercial compliance have reduced Customs' examinations to 1% - 3% of all import shipments. Moreover, Customs examines less than 1% of export shipments. It must be recognized that it may be too late to discover a weapon of mass destruction after it arrives in South Africa. Examination patterns must be adjusted to increase random examinations, provide levels and vigilance that are consistent for all ports to avoid port of entry targeting by terrorists and reward accredited SARS importers and exporters with fewer examinations.

- **POSSIBLE SOLUTIONS - CRITERIA FOR ENHANCED SECURITY MEASURES**

In short projects should be focused and well structured, and selected on the basis that they attempt to effectively address and evaluate clearly understood security issues and possible solutions (USCS, 2002).

- Validate security at the point of origin;
- Secure the supply chain;
- Enhance the accuracy and communication of cargo information; and
- Monitor the movement and integrity of cargo in transit.

The objective is to secure the maritime trading environment while accommodating the need for efficiency in global commerce.

Figure 1.1: ESSENCE OF SUPPLY CHAIN SECURITY

Establishing security criteria to identify high-risk containers	Advance export consignment information
Pre-screening containers before they depart country of export	Risk management capability
Using technology to pre-screen high risk containers	X-ray scanner deployment
Developing and using smart and tamperproof containers	Electronic seals / transponders

Source: SARS, 2002

The ability to strategize, plan and implement strategies for the future now will be key to whether or not South Africa can continue to be competitive globally within an environment of heightened security risk.

1.3 PROBLEM STATEMENT

The Customs administration of South Africa and the maritime industry has been characterized over the past few years by:

- Dealing with increasing volumes of containerized cargo on an annual basis;
- Increasing levels of trade fraud which involves the deliberate misrepresentation of cargo in the respective manifest for such purposes as evading customs duties, inflating value-added tax rebates or claiming improper export credits;
- Containerized cargo has become a conveyance of choice for contraband (illicit drugs, proscribed weapons, hazardous wastes);
- Dwindling human resource capacity to perform the necessary physical examination of containerized cargo and budgetary constraints;
- Pressure from industry for faster clearance processes for the purposes trade facilitation; and
- The challenges and demands of heightened security pertaining to the movement of containerized cargo.

In order to address these issues, it is imperative that SARS and the maritime industry of South Africa fully understand the environment in which they operate. This would enable a strategic analysis to be done to identify and establish options for the future acquisition and deployment of x-ray scanning technology. It would also be necessary to study the perceptions of the maritime industry role-players.

The problem statement, therefore is:

Strategic approaches to public sector partnering in the acquisition, financing and implementation of x-ray scanner technology for the inspection of containerized cargo in South Africa.

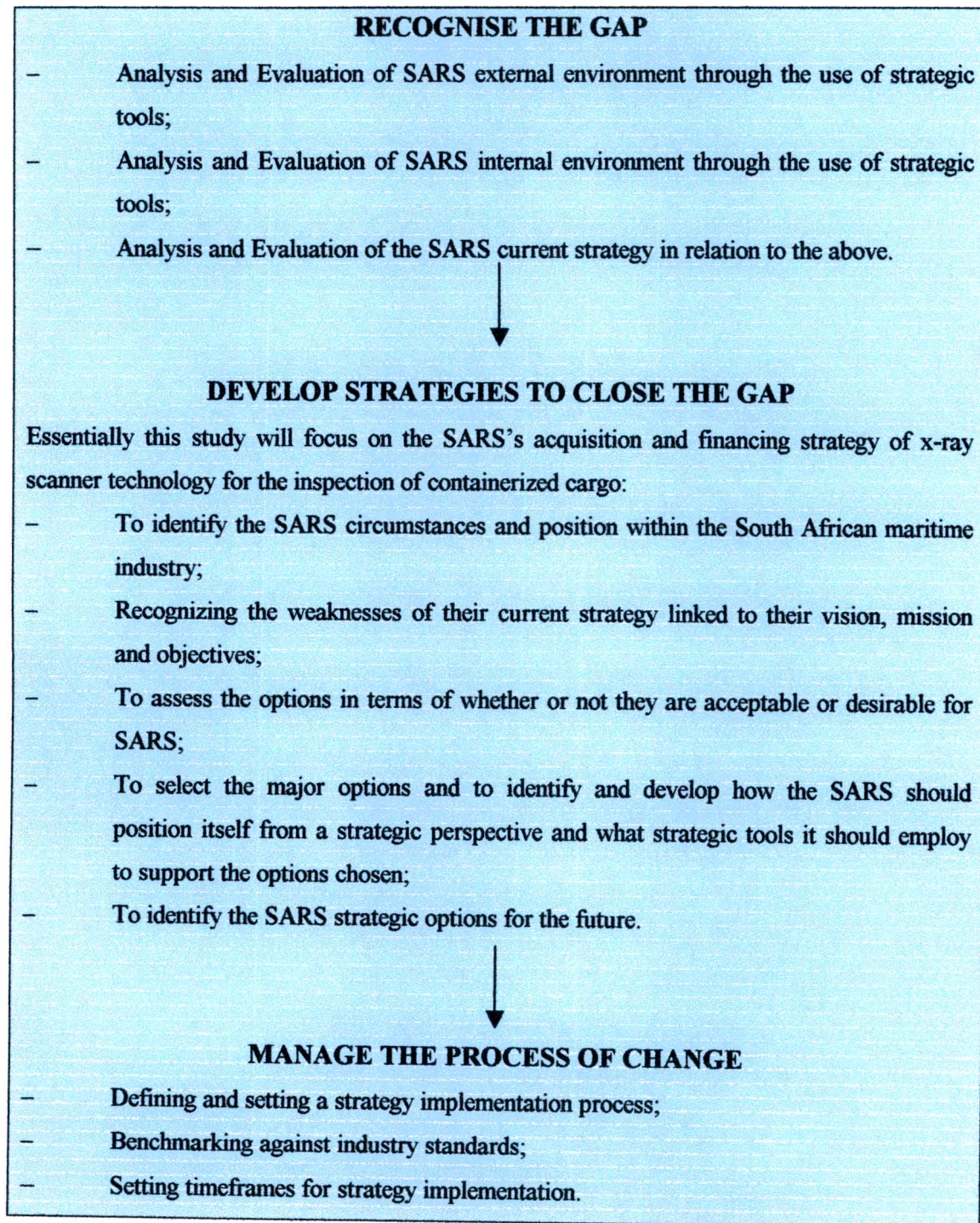
Encompassing the following:

- i). *What are the strategic issues that determine the interaction which characterize the dynamic nature of x-ray scanner technology implementation for SARS?*
- ii). *What are the strategic financial options available to SARS?*
- iii). *How and why do contextual conditions and implementation tactics interact and work together to ensure x-ray scanner technology implementation success?*

1.4 RESEARCH OBJECTIVES

The objective of the research report is to ascertain the likely strategic management decisions that SARS should make in the light of these changing industry conditions. Prevalent within its industry and operating environments are numerous strengths, opportunities, weaknesses and threats. The objectives of the study are to formulate and devise strategies to develop a sound fit between SARS internal resources and its external situation and will be based on a “Gap Analysis” and is illustrated as a model in figure 1.2:

Figure 1.2: THEORETICAL MODEL OF “GAP ANALYSIS” WITHIN THE CONTEXT OF THE SARS STRATEGIC ANALYSIS AND EVALUATION.



Source: Adapted from Ambrosini, V (1998), "Exploring Techniques of Analysis and Evaluation in Strategic Management".

1.5 IMPORTANCE OF THE STUDY

Through a review of the strategic management practices of SARS, the study will aim to address the following questions:

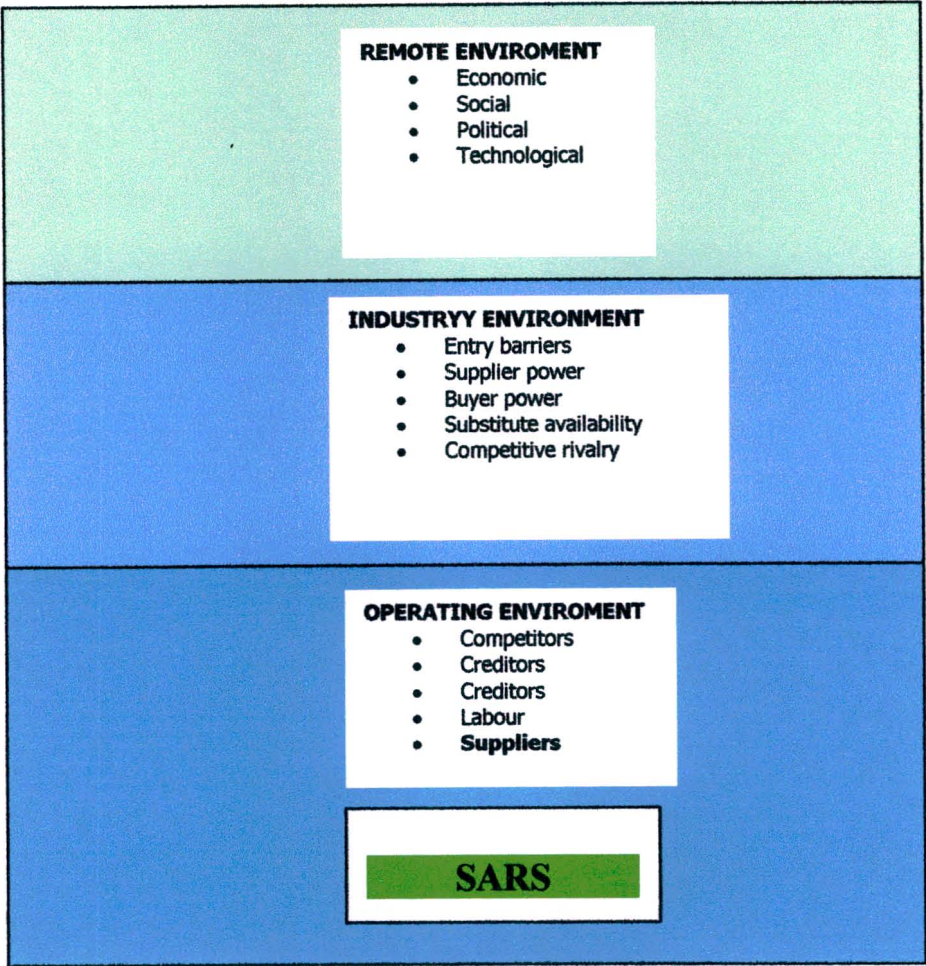
- i). What changes are occurring in the environment where the organization operates and what implications do these changes have for the direction in which the organization needs to move?
- ii). What new or different client needs should they be moving to satisfy?
- iii). What segments should they be concentrating on?
- iv). What should SARS look like in five years?
- v). What kind of organization should they be trying to become?

1.6 SCOPE OF THE STUDY

The study will look at various components of containerized cargo in South Africa and within the industry environment of the SARS, components within the internal environment of the organization and the strategic management practices of SARS and a model is presented in figure 1.3. The threat of non-compliance forms an integral component of the industry environment and in order to determine how well SARS current strategy is working, the study will need to review the organization's resource strengths and weaknesses and its external opportunities and threats.

“Good company situation analysis, like good industry and competitive analysis, is a crucial pre-requisite to good strategy-making. A company's resources and competencies expose strong and weak points in the present strategy, company capabilities and vulnerabilities, and the company's ability to protect or improve its competitive pressures and the competitive strength of rivals. Managers need an understanding to craft a strategy that fits the company's situation well” (Thompson & Strictland, 2001:147).

Figure 1.3: **ENVIRONMENTAL ANALYSIS** - OUTLINES THE MAIN FOCUS AREAS OF THIS STUDY THAT WILL BE EXPLORED:



Source: Adapted from Pearce & Robinson (2000)

1.7 ETHICAL CONSIDERATIONS

Information has been drawn from documents that are of a confidential nature to the respective organizations used in this study. The researcher has been granted access to such information. However, based on the confidentiality of the matters at hand it is a requirement of the respective organizations not to make public the results of the study. Accordingly the researcher is obliged to grant the confidentiality request.

1.8 REPORT STRUCTURE

With the objectives of the study having been introduced and the importance thereof explained and an explanation of the research methodology applied is provided.

Chapter two defines the theoretical strategic concepts adopted and lists the strategic tools and elements common to strategic development. In chapter three, the case study is presented. An evaluation of SARS present strategy is presented in chapter 4. Finally the recommendations and some concluding remarks are presented in chapter five.

1.9 RESEARCH METHODS

The first part of this chapter explained the reasons for and importance of studying the specific research topic relating to the acquisition, financing and implementation of x-ray scanning technology in South Africa. From the secondary data collected on the research topic it was evident that an essential aspect of acquisition of capital assets by government agencies and financing thereof had not been explored. The lack of secondary data that sufficiently address the identified information gaps largely necessitated an additional data collection.

1.9.1 CASE STUDY METHODOLOGY

Case study is an ideal methodology when a holistic, in-depth investigation is needed (Feagin, Orum & Sjoberg, 1991). Case study research is not sampling research; that is a fact asserted by all the major researchers in the field, including Yin, Stake and Feagin and others. However, selecting cases must be done so as to maximize what can be learned in the period of time available for the study. Yin (1994) presented at least four applications for a case study model:

- i). To explain complex causal links in real-life interventions;
- ii). To describe the real-life context in which the intervention has occurred;
- iii). To describe the intervention itself;
- iv). To explore those situations in which the intervention being evaluated has no clear set of outcomes.

Several pieces of the methodology proposed by Eisenhardt (1989) are borrowed from extant literature. Specifically, the approach includes key ideas and concepts from the work of Glaser and Strauss (1967) on grounded theory, Yin (1994, 1999) on case

study research and Miles and Huberman (1994) on qualitative data analysis to name a few. This chapter describes the roadmap proposed by Eisenhardt (1989) for building theories from case study research and illustrates how this methodological framework can serve as a useful guide to researcher. The roadmap is summarized in figure 1.4.

Figure 1.4: PROCESS OF BUILDING THEORY - CASE STUDY RESEARCH

Steps	Activities	Reasons
1. Getting Started	<ul style="list-style-type: none"> - Definition of research questions - Possibly a priori constructs - Neither theory nor hypotheses 	<ul style="list-style-type: none"> - Focuses efforts - Provides better grounding of construct measures - Retains theoretical flexibility
2. Selecting cases	<ul style="list-style-type: none"> - Specified population - Theoretical sampling 	<ul style="list-style-type: none"> - Sharpens external validity - Focuses efforts on cases that replicate or extend theory
3. Crafting instruments and protocols	<ul style="list-style-type: none"> - Multiple data collection methods - Qualitative and quantitative data combined - Multiple investigators 	<ul style="list-style-type: none"> - Strengthens grounding of theory by triangulation of evidence - Synergistic view of evidence - Fosters divergent perspectives and strengthens grounding
4. Entering the field	<ul style="list-style-type: none"> - Overall data collection and analysis - Flexible and opportunistic data collection methods 	<ul style="list-style-type: none"> - Speeds analysis and reveals helpful adjustments to data collection - Allows investigators to take advantage of emergent themes and unique case features
5. Analyzing data	<ul style="list-style-type: none"> - Within-case analysis - Cross-case pattern using divergent techniques 	<ul style="list-style-type: none"> - Gains familiarity with data and preliminary theory generation - Forces investigators to look beyond initial impressions
6. Shaping hypotheses	<ul style="list-style-type: none"> - Replication, not sampling, logic across cases - Search evidence of "why" behind relationships 	<ul style="list-style-type: none"> - Confirms, extends, and sharpens theory - Builds internal validity
7. Enfolding literature	<ul style="list-style-type: none"> - Comparison with conflicting and similar literature 	<ul style="list-style-type: none"> - Builds internal validity - Sharpens external validity
8. Reaching closure	<ul style="list-style-type: none"> - Theoretical saturation when possible 	<ul style="list-style-type: none"> - Ends process when marginal improvement becomes small

1.9.2 STEP 1: GETTING STARTED

According to Eisenhardt (1989), three issues are of great importance in getting started, namely:

- the initial definition of research questions,
- the *a priori* specification of constructs; and
- the consideration of *a priori* theory or hypotheses.

Each of these issues will be examined in turn.

• INITIAL DEFINITION OF RESEARCH QUESTIONS

First, an initial definition of one or more related research questions is required as it is as important in building theory from case studies as it is in hypothesis-testing research. Without a research focus, it is easy to become overwhelmed by the volume of qualitative data (Yin, 1994). The ultimate intent of the study is to broaden and strengthen the understanding of security issues or risks prevalent in the maritime industry with regard to containerized cargo in South Africa. Accordingly, efforts were directed toward exploring and providing the story that explains *how* and *why* contextual conditions, strategies interact and implementation tactics work together to produce x-ray scanner technology implementation outcomes or an innovative strategy to acquire capital assets at minimal risk for Government agencies such as the South African Revenue Service.

In pursuit of this objective, three interrelated research questions were initially stated:

- i). *What are the strategic issues that determine the interaction which characterize the dynamic nature of x-ray scanner technology implementation for SARS?*
- ii). *What are the strategic financial options available to SARS?*
- iii). *How and why do contextual conditions and implementation tactics interact and work together to ensure x-ray scanner technology implementation success?*

These research questions provided a well-defined focus to the research and allowed the researcher to specify the kind of data to be gathered.

- **A PRIORI SPECIFICATION OF CONSTRUCTS**

According to Anderson & Aydin (1994), with regard to the issue of using existing theoretical constructs to guide theory-building research, two different approaches may be taken and these are explored below:

- i). The researcher works within an explicit conceptual framework. A conceptual framework "consists of a selection of concepts and relations among them, grouped so as to enable its users to easily see the major concepts simultaneously in their relations to one another" (Kochen, 1986:93). Therefore, a conceptual framework becomes a "researcher's first cut at making some explicit theoretical statements" (Miles & Huberman, 1994:91).
- ii). Here the researcher tries not to be constrained by prior theory and instead sees the development of relevant theory, hypotheses and concepts as a purpose of the project.

In the present study both approaches are utilized, as the main intent was to provide new dimension to the area under study. As prescribed by Yin (1999), even exploratory case study research should make use of a conceptual framework to define the priorities to be explored. In the context of this study, the use of a framework assisted to understand events and developments, ensured that pertinent issues were not overlooked, provided a set of constructs to be investigated and guided the interpretation and focus.

- **CONSIDERATION OF *A PRIORI* THEORY OR HYPOTHESES**

The primary objective of this study was to develop a *process theory* for the financing of the acquisition of x-ray scanning technology and its implementation for a government agency. Pare (2002) states that Eisenhardt suggests that theory-building

research must begin as close as possible to the ideal of no theory under consideration and no hypotheses to test since preordained theoretical perspectives may bias and limit the findings. However, as stressed by Eisenhardt, it is quite impossible to achieve the ideal of a clean theoretical slate. Hence, in this research study Eisenhardt's suggestion of not identifying specific relationships between the constructs in the conceptual framework was followed to a limited extent as it thereafter became necessary to utilize the teleological view as expounded by Van de Ven & Poole (1995). The teleological theory reflected the basic assumptions about the nature of the phenomena being studied and the assumptions were supported by strong evidence in the secondary data.

1.9.3 STEP 2: SELECTING CASES

Selection of cases represents another important aspect of building theory from case studies (Eisenhardt, 1989; Lee, 1989; Yin, 1994). Such research relies on theoretical sampling that is, cases are chosen for theoretical and not statistical reasons. The cases may be chosen to replicate previous cases or extend emergent theory or they may be chosen to fill theoretical categories and provide examples of polar types (Eisenhardt, 1989). A literal replication strategy was adopted in this study, as expounded by Yin (1994).

As a general rule, the definition of the unit of analysis is related to the way the initial research questions have been defined and the generalizations desired at the project's completion (Yin, 1994). The unit of analysis in this research study is therefore the acquisition and deployment of the x-ray scanners itself, or more precisely, the series of events and decisions that will occur during each project up until the implementation stage.

Portcon, the international consulting division of the National Ports Authority of South Africa agreed to participate in this research project. Consequently, the Ghanaian Customs Authority's financing strategy for the acquisition and deployment of x-ray scanning technology also became an object of study in this research.

1.9.4 STEP 3: CRAFTING INSTRUMENTS AND PROTOCOLS

Theory-building researchers typically combine multiple data collection methods. The rationale is the same as in hypothesis-testing research, that is, the triangulation made possible by multiple data collection methods provides stronger substantiation of constructs and hypotheses (Eisenhardt, 1989 and Yin, 1994). Several researchers like Kaplan & Duchon (1988) and Lee (1989) recommend that both quantitative and qualitative data be used in any study if at all possible. Yin (1994) identified six primary sources of evidence for case study research. The use of each requires different skills from the researcher. The six sources identified by Yin (1994) are documentation, archival records, interviews, direct observation, participant observation and physical artifacts. Each of these data collection methods is appraised more fully in Figure 1.5.

Figure 1.5: TYPES OF EVIDENCE (YIN: 1994)

Source of evidence	Strengths	Weaknesses
Documentation	<ul style="list-style-type: none"> - stable – repeated review - unobtrusive – exist prior to case study - exact – names etc - broad coverage – extended time span 	<ul style="list-style-type: none"> - irretrievability – difficult - biased selectivity - reporting bias – reflects author bias - access – may be blocked
Archival records	<ul style="list-style-type: none"> - same as above - precise and quantitative 	<ul style="list-style-type: none"> - same as above - privacy might inhibit access
Interviews	<ul style="list-style-type: none"> - targeted – focuses on case study topic - insightful – provides perceived causal inferences 	<ul style="list-style-type: none"> - bias due to poor questions - response bias - incomplete recollection - reflexivity – interviewee expresses what interviewer wants to hear
Direct observation	<ul style="list-style-type: none"> - reality – covers events in real time - contextual – covers event context 	<ul style="list-style-type: none"> - time consuming - selectivity – might miss facts - reflexivity – observer's presence might cause change - cost – observers need time
Participant observation	<ul style="list-style-type: none"> - same as above - insightful into interpersonal behaviour 	<ul style="list-style-type: none"> - same as above - bias due to investigator's actions
Physical artifacts	<ul style="list-style-type: none"> - insightful into cultural features - insightful into technical operations 	<ul style="list-style-type: none"> - selectivity - availability

For this research project qualitative data was collected. Qualitative data was primarily collected through face-to-face un-structured interviews. The primary goal of the interviews was to elicit the respondent's views and experiences in his or her own terms, rather than to collect data that are simply a choice among pre-established response categories as discussed by Kaplan and Maxwell (1994). The first step in the research design was to interview individuals who participated in any projects involving the acquisition, financing or implementation of x-ray scanning technology for containerized cargo implementation. The following group of user representatives was interviewed at various times (this is not an exhaustive list) and these were Ghanaian Customs representatives; Ghanaian Ministry of Trade representatives; Heimann representatives (suppliers of x-ray equipment); Cotecna and Portcon.

Each interview started with a brief discussion of the research project, carefully designed to arouse the attention and interest of the interviewee, while not biasing the responses by providing too much information about the conceptual framework. The core of the interviews was unstructured. Basically, an interview guide was used that contained the specific issues to be discussed with the respondent and questions to be kept in mind during each interview. Appendix 2 shows the excerpt of an interview guide.

The researcher encouraged open discussions in the interviews allowing interviewees to ask any questions and add any comments they might want. A total of 34 interviews were conducted over a period of approximately 38 months.

Real time data gathering proved to be impossible in this research project. To alleviate this limitation, two tactics were adopted in the study to increase construct validity, namely, reconstruction of events using multiple respondents and having key informants review the final version of the report.

Documents and texts also can be valuable sources of qualitative data (Kaplan & Maxwell, 1994; Miles & Huberman, 1994). Documents from various sources were added to the database. All documents relevant to the present study, including Portcon's research material on x-ray scanners, SARS research material, other relevant information from various customs administrations, annual reports, special reports

and/or government administrative documents, newsletters and journal publications, x-ray scanner user manuals, tender documents were collected and analyzed. Archival records were also utilized and the researcher using limited resources attempted to determine the origins of the records and their accuracy.

The researcher read a series of documents made available by one of the key actors that was involved in the acquisition, financing and implementation process of the pilot x-ray scanner project in Durban, South Africa. These documents present the results of a post-audit evaluation effort that took place before, during and after the implementation process. The validity of documents was reviewed. These documents provided precious quantitative information that could be compared with qualitative responses of the interviewees with regard to the value of implementing additional x-ray scanning facilities for containerized cargo in South Africa.

Observation was also used to complete the qualitative assessment and it provided a crucial assessment of the pilot x-ray scanning facility in Durban, South Africa and its feasibility. In this study, observation took place during several sessions and meetings involving the implementation project team members, user representatives and external parties at the pilot x-ray scanning facility in Durban. Further another observation was possible as the researcher was able to observe the Ghanaian x-ray scanning facility during a visit to the facility in Accra, Ghana. Direct observation of the different inspection methods used by customs officers was also possible. Detailed notes were taken during all observations in order to capture the researchers' impressions and insights.

Overall, the gathering of qualitative data from multiple sources helped to demonstrate the extent of congruity and consistency between the researchers' and key informants' evaluations and to triangulate over given facts (Patton, 1999).

1.9.5 STEP 4: EARLY STEPS IN DATA ANALYSIS

“Data analysis consists of examining, categorizing, tabulating or otherwise recombining the evidence to address the initial propositions of a study” (Yin 1994). A

striking feature of research to build theory from case studies is the frequent overlap of data analysis with data collection (Eisenhardt, 1989).

In summary, overlapping data analysis with data collection not only gives the researcher a head start in analysis but, more importantly, allows researchers to take advantage of flexible data collection. Indeed, a key feature of theory-building case research is the freedom to make adjustments during the data collection process. In this study, adjustments included adding questions to interview guides, reviewing more data sources, observing meetings when the opportunity arose to do so, and interviewing previously unknown individuals who were identified during the study as important participants.

1.9.6 STEP 5: ANALYZING DATA (WITHIN-CASE AND CROSS-CASE)

Analyzing data is the heart of building theory from case studies, but it is both the most difficult and the least codified part of the process (Eisenhardt, 1989 and Miles & Huberman, 1994). Qualitative studies tend to produce large amounts of data that are not readily amenable to mechanical manipulation, analysis and data reduction (Yin, 1994). Therefore, the basic goal of qualitative data analysis is being able to understand the search for coherence and order (Kaplan & Maxwell, 1994). Eisenhardt (1989), explores two key aspects, namely, "Within-Case Analysis" and "Cross-Case Analysis" and the analytical techniques adopted during each of these two phases are briefly examined below.

- **ANALYZING WITHIN-CASE DATA**

Within-case analysis typically involves detailed write-ups for each segment of the study as it assists the researcher to cope early in the analysis process with the often-enormous volume of data (Eisenhardt, 1989). However, there is no standard format for such analysis. The procedure followed to analyze each of the segments in the project in this study is summarized in Figure 1.6.

Figure 1.6: WITHIN-CASE ANALYSIS PROCEDURE

Step 1: Development of a case study data base
1.1 Gather reflective remarks and observation notes
1.2 Extract data from the secondary documents
1.3 Group extracted segments under categories
1.4 Perform descriptive statistical analyses on quantitative data
Step 2: Development of a logical chain of evidence
2.1 Evaluate the contextual conditions surrounding the implementation project
a) perform a qualitative assessment
b) perform a quantitative assessment
c) verify consistency between qualitative and quantitative assessments
d) explain any significant inconsistency
2.2 Evaluate the extent of implementation success
a) perform a qualitative assessment
b) perform a quantitative assessment
c) verify consistency between qualitative and quantitative assessments
d) explain any significant inconsistency
2.3 Establish a logical chain of evidence between implementation context and success
a) identify the challenges
b) provide the story that explains the extent to which each challenge was overcome
c) build a summary table

As recommended by Yin (1994), a case study database for each relevant area of study was developed. Each data base organized the data collected in the case and contained the following elements:

- i). Raw material (including interview transcripts, researcher's field notes, documents collected during data collection, and survey material);
- ii). Coded data;
- iii). Coding scheme;
- iv). Memos and other analytical material;
- v). Data displays and other related material;
- vi). Document summary forms; and
- vii). General chronological log of data collection.

In qualitative research, coding involves segmenting the data into units (Hammersley & Atkinson, 1983) and rearranging them into categories that facilitate insight, comparison and the development of theory (Strauss & Corbin, 1990). Codes serve as

retrieval and organizing devices that allow the rapid retrieval and clustering of all the segments related to a particular question, concept, or theme. To be consistent with the conceptual framework (Appendix 1), the coding scheme developed in this study was divided into three broad categories:

- i). contextual conditions,
- ii). implementation tactics, and
- iii). implementation success criteria. (Appendix 3 shows an excerpt of the coding scheme used in this study)

Yin (1994) suggests that every case study investigation should have a general analytic strategy, so as to guide the decision regarding what will be analyzed and for what reason. According to Yin (1994) three possible analytic strategies exist namely: pattern-matching, explanation-building, and time-series analysis.

An explanation-building strategy was adopted, in order to understand the *how* and *why* associated with each segment of the study and to provide answers to the research questions. The first task was to identify the challenges being experienced during the acquisition process of x-ray scanning technology. Challenges were identified through an in-depth analysis of the contextual conditions surrounding the acquisition process. In turn, for each challenge described, tactics were adopted to cope with the encountered problems, anticipated or not. The extent to which each challenge was overcome was explained by:

- i). Providing evidence of the effectiveness of each coping tactic,
- ii). Identifying and explaining how certain contextual conditions enhanced the effectiveness of coping tactics; and
- iii). Explaining how other conditions prevented the adoption of tactics by acting as compensatory mechanisms.

As recommended by Yin (1994), each chain of evidence was established by having sufficient citations in the report to the relevant portions of the case study database and developing a case study protocol, which clearly indicates the links between the content of the protocol and the initial research questions.

A case study protocol contains more than the interview or survey instruments, it should also contain procedures and general rules that should be followed in using the instruments. It is to be created prior to the data collection phase.

Precisely, a typical case protocol should have the following components:

- i). An overview of the case study project (objectives, issues, topics being investigated);
- ii). Field procedures (credentials and access to sites, sources of information);
- iii). Interview guides and/or survey instruments; and
- iv). A guide for case study report (outline, format for the narrative).

The adoption of displays such as matrices, flowcharts and conceptual maps was also useful in several ways during data analysis. Figures and charts also served two other key functions, namely, data reduction and presentation of data that allows it to be grasped as a whole (Miles & Huberman, 1994).

• **SEARCHING FOR CROSS-CASE PATTERNS**

As stressed earlier, the ultimate intent of this research was to gradually build a new theory for the acquisition of capital assets by a government agency. The method of generalization adopted here is "analytic generalization," in which previously developed theory is used as a template with which to compare the empirical results of the case study. Under such logic, when two or more cases are shown to support the same theory, replication may be claimed (Yin, 1994).

This iterative process started with the development and presentation of an initial set of theoretical propositions based on evidence of the pilot x-ray scanner project in Durban, South Africa and the theoretical assumptions associated with the teleological process. The initial propositions then became a vehicle for generalizing to the other two projects, namely the proposition of the National Ports Authority of South Africa of using a "Section 21 company" concept and the Ghanaian PPP case study. As a second step, the emergent propositions from the first project were systematically compared with evidence from the second project. The theoretical propositions were

supported by the evidence, revised or not supported for lack of sufficient evidence. As a third and final step, the process was repeated when refined theoretical propositions were systematically compared with evidence from the third project. The central idea was to iterate toward a theory that fits the data, where projects which supported the emergent theory enhance confidence in its validity, while projects which did not support the theory often provide an opportunity to refine and extend the theoretical model (Eisenhardt, 1989).

1.9.7 STEP 6: SHAPING RESEARCH PROPOSITIONS

The next step of this highly iterative process is to compare systematically the emerging theory with the evidence from each project in order to assess how well or poorly it fits with the data. The central idea is that researcher constantly compares theory and data - iterating toward a theory that closely fits the data (Eisenhardt, 1989). Based on the teleological process, this study proposed a series of options research propositions reflecting the complex and dynamic nature of x-ray scanner implementation. These propositions will be presented in later chapters.

The process of shaping propositions is more judgmental in theory-building research because researcher cannot apply statistical tests. The researcher must judge the strength and consistency of relationships within and across cases and also fully display the evidence and procedures when the findings are published, so that readers may apply their own standards. Consequently, qualitative data are particularly useful for understanding why or why not emergent relationships hold. When a relationship is supported, the qualitative data often provide a good understanding of the dynamics underlying the relationship, that is, the why of what is happening.

An important way of ensuring internal validity in this study was by way of validating the researcher's interpretations is by systematically gathering feedback about one's conclusions from participants in the case being studied (Guba & Lincoln, 1989). To further increase the validity and reliability of this research, key informants reviewed the draft reports and were able to comment thereon. Figure 1.7 summarizes the four criteria used to assess the quality of any research design and the case study tactics adopted in this study.

Figure 1.7: CASE STUDY TACTICS ADOPTED FOR DESIGN QUALITY

Criterion	Description	Adopted tactics
Construct validity	Establishing correct operational measures for the concepts being studied	<ul style="list-style-type: none"> - Multiple sources of evidence - Review of case study report by key informants - Mix of qualitative and quantitative methods
Internal validity	Establishing a causal relationship, whereby certain conditions are shown to other conditions, as distinguished from creating spurious relationships	<ul style="list-style-type: none"> - Explanation-building strategy with logical chain of evidence - Review of case study report by key informants - Site analysis meeting - Sufficient citations in the case report - Checklist matrices - Tying propositions to existing literature
External validity	Establishing the domain within which a study's findings can be generalized	<ul style="list-style-type: none"> - Analytic generalization - Tying propositions to existing literature
Reliability	Demonstrating that the operations of a study can be repeated, with the same results	<ul style="list-style-type: none"> - Validation of coding scheme - Case study data base - Case study protocol

Source: Guba & Lincoln (1989)

1.9.8 STEP 7: ENFOLDING LITERATURE

An essential feature of theory building is comparison of the emergent concepts, theory or hypotheses with the extant literature (Eisenhardt, 1989). This involves asking what is similar to, what does it contradict and why. In short, the researcher found that tying the emergent theoretical propositions to existing literature enhances internal validity and generalizability of theory building from case study research as suggested by Eisenhardt (1989).

1.9.9 STEP 8: REACHING CLOSURE

An important issue in reaching closure is when to stop adding cases. Ideally, researchers should stop adding cases when theoretical saturation is reached (Eisenhardt, 1989). Theoretical saturation is the point at which incremental learning is minimal because the researchers are observing phenomena seen before (Glaser & Strauss, 1967). In practice, however, theoretical saturation often combines with pragmatic considerations to dictate when case collection ends. In fact, it is not uncommon for researchers to plan the number of cases in advance.

For pragmatic reasons of time, money and opportunity, this study involved three case studies. Clearly theoretical saturation cannot be attained with such a small number of cases. Therefore, additional case studies of x-ray scanner implementation projects must be conducted to increase the validity and reliability of the theoretical propositions developed in the research. The theoretical propositions would benefit not only from being tested using other clinical applications but also to be tested against recent project failures where projects were abandoned at some point or where such technology are not used at all.

1.10 LIMITATIONS OF PROJECT

A limitation of the study is the fact that due to financial and timing constraints the sample is limited to key executives at the respective government departments. Towards the final stages of the project key SARS executives were reluctant to participate in any further interviews, as the writer was no longer in SARS employment.

1.11 CONCLUSION

It is clear that current qualitative research standards have evolved. Today, qualitative analysis needs to be well documented as a process mainly to assist the researcher in learning. A researcher needs to understand more clearly what is going on when one analyzes data, to reflect, refine the methods and to make them more generally useable by others. Accordingly, case study is a reliable methodology when executed with due care.

This chapter explained the research proposal and the research methodology applied in the research and the transformation process of data into more understandable results, which is applied in later chapters. Chapter 2 presents the theoretical model for the research project.

CHAPTER 2 – THEORETHICAL MODEL OF STRATEGY

2.1 INTRODUCTION

“Cheshire Puss,” she [Alice] began ... “would you tell me, please, which way I ought to go from here?” “That depends a good deal where you want to get to,” said the Cat. – Lewis Carroll

No single subject has dominated the attention of managers, consultants and management theorists as the subject of corporate strategy. Corporate strategy is concerned with an organization’s basic direction for the future. Accordingly for any organization experiencing change it has at its disposal numerous strategy tools to determine the strategic route it needs to adopt whilst taking cognizance of its purpose, its ambitions, its resources and how it interacts with the world in which it operates.

This chapter introduces strategic management process, the set of decisions and actions that result in the design and activation of strategies to achieve the objectives of an organisation. The chapter provides an overview of the nature, benefits and terminology of and the need for strategic management. The development of strategy within an organization requires the application of a range of tools and techniques. By their nature they tend to be analytical. Many of the techniques are used to assist in the analysis and evaluation of different options (choice) and others can assist in identifying problems in changing the organization, designing new structures or assisting in resource allocation and control (all elements of implementation).

Each of the tools in its individual components are carefully defined and explained, as is the process for integrating them into the strategic management process and they are presented in a chronological manner.

2.2 WHAT IS STRATEGIC PLANNING?

In their book, “Exploring Corporate Strategy”, Gerry Johnson & Kevan Scholes (2002) approach the question “what is strategy?” by attempting to find characteristics that distinguish strategic decisions from other decisions taken within the organization.

They identify the characteristics of strategic decisions as being about:

- Affecting the long-term direction of the organization;
- Achieving an advantage, frequently over the competition;
- The scope of the organization's activities;
- The matching of an organization to its environment;
- Building on an organization's resources and competences;
- The requirement for major resource changes within an organization;
- Having an impact on operational decisions across the organization; and
- The values and expectations of the organization.

Above all, Johnson & Scholes (2002) argue that strategic decisions are complex, involve a high degree of uncertainty and affect the organization as a whole.

According to Pfeiffer, Goodstein & Nolan (1985), strategic planning is the process by which the guiding members of an organization envision its future and develop the necessary procedures and operations to achieve that future.

Whereas, Bryson (1988) defines strategic planning as a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it. At best, strategic planning requires broad scale information gathering, an exploration of possible alternatives, and an emphasis on the future implications of present decisions. Strategic planning can facilitate communication and participation, accommodate different interests and values and fosters orderly decision-making and successful implementation.

Simerly & Associates (1987) note four different uses of the term. Firstly, strategic planning is an emphasis concerned with the consequences of today's decisions. Secondly, strategic planning can be thought of as a process concerned with creating consensus on organizational goals. Thirdly, strategic planning is a philosophy of how to lead an organization. Fourthly, strategic planning is a structural method designed to prepare for the future. As a future-oriented method, it emphasizes formal, written plans.

In today's highly competitive business environment, budget-oriented planning or forecast-based planning methods are insufficient for a large corporation to survive and prosper. The firm must engage in strategic planning that clearly defines objectives and assesses both the internal and external situation to formulate strategy, implement the strategy, evaluate the progress, and make adjustments as necessary to stay on track (Hanson & Dowling 2001).

However, strategic planning is not always advisable. It may not be the best first step for an organization in crisis or for an organization, which lacks skills, resources or commitment from key decision makers. Some may prefer to rely on the intuition of gifted leaders. Some organizations have enormous difficulty in reaching decisions that cut across levels, functions, or programs and find that "muddling" is the only way to effectively bring change to the organization. Finally, strategic planning should not be undertaken unless timely and complete implementation of the results is likely (Bryson, 1988). Despite these cautions, a rapidly changing environment and newfound visibility of the concepts have increased the emphasis on strategic planning (Vicere, 1985).

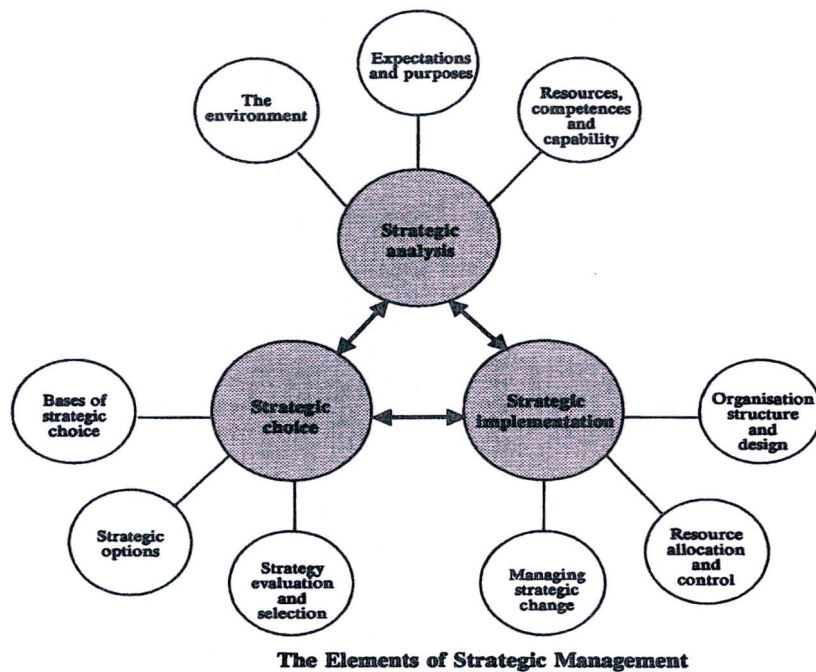
Accordingly to Mintzberg (1995:275), *"Strategic management is after all, a combination of science, which can be learned, and art, which must be practiced, certainly thinking and acting cannot be separated"*.

2.3 STRATEGY EXPLORED AS ANALYSIS-CHOICE-IMPLEMENTATION

Whilst definitions and descriptions of the levels of strategy are useful, the focus is upon what it *is*, rather than what it *does*. A number of frameworks are available to help to understand further the nature of strategy as a managerial process, however, in this paper only the analysis-choice-implementation framework is explored below.

Johnson & Scholes (2002) outline a model of the elements of strategic management and their model is reproduced below in Figure 2.1.

Figure 2.1: THE ELEMENTS OF STRATEGIC MANAGEMENT



Source: Johnson & Scholes 2002

They argue that the process of managing strategy involves three elements:

2.3.1 STRATEGIC ANALYSIS

- Understanding the strategic position of the organization involves an assessment of how the environment affects the organization;
- Understanding the strategic capability of the organization, based on its resources and competences; and
- Understanding the organization's purpose and the expectations of key stakeholders. All these elements of strategic analysis are highlighted in the relevant part of Figure 2.1.

2.3.2 STRATEGIC CHOICE

This involves the formulation and evaluation of potential courses of action. Johnson & Scholes (2002) argue that strategic choice can be conceived in terms of:

- Identifying the bases of choice by determining how the firm creates an advantage, how it balances its activities and its aspirations for the future.
- Generating options by establishing the directions in which the organization could move and by what methods.
- Evaluating and selecting options by the extent to which options meet tests of suitability, feasibility and acceptability.

2.3.3 STRATEGY IMPLEMENTATION

This involves the planning and managing of the required change. It is how strategy is translated into action and forms part of the third element of Johnson & Scholes' (2002) framework of strategic management. This process involves consideration of issues like organizational structure, resource planning and the management of strategic change.

Each of the elements of the model will be explored in more depth, by examining how they provide an insight into the strategic management of a real-life organization.

2.4 STRATEGIC ANALYSIS

Understanding the strategic position of the organization involves an assessment of how the environment affects the organization; understanding the strategic capability of the organization, based on its resources and competences; and understanding the organization's purpose and the expectations of key stakeholders.

2.4.1 ANALYSIS OF THE ENVIRONMENT

Instead of being routine and fairly predictable, the business environment has become increasingly volatile; according to many managers the pace of change has accelerated and will continue to do so. At the same time the complexity of the environment has also increased.

Strategists are agreed that an understanding of the environment is an essential element for the development of corporate strategy (Lynch, 2000:104). The ability to

understand the impact of the external environment upon an organization will not guarantee strategic success but to ignore the external environment is highly likely to make failure a distinct possibility.

A host of external factors influence a firm's choice of direction and action and ultimately, its organizational structure and internal processes. These factors, which constitute the *external environment*, can be divided into three interrelated subcategories:

- i). Factors in the remote environment;
- ii). Factors in the industry environment;
- iii). Factors in the competitive environment.

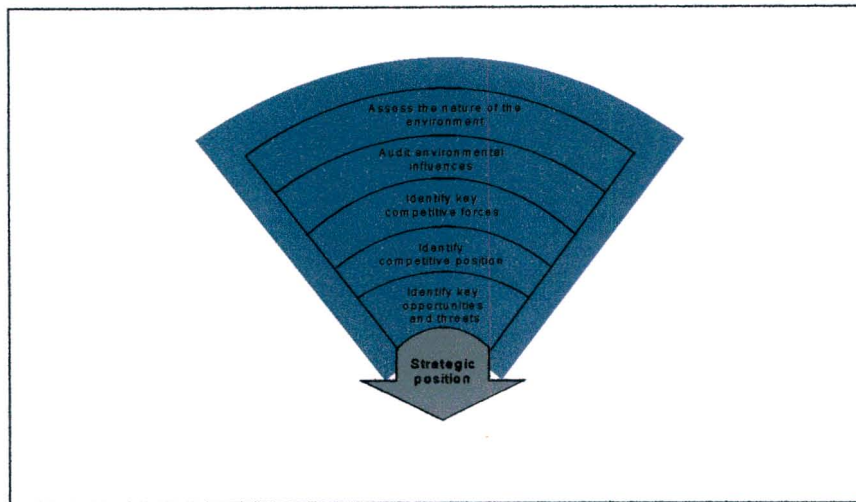
• **WHY STUDYING THE ENVIRONMENT IS IMPORTANT**

Environmental analysis is important because it helps in developing sustainable competitive advantage, identifies opportunities and threats and may provide opportunities for productive co-operation with other organizations. There are also three major difficulties experienced in studying the environment:

- The use to which the analysis will be put to;
- Uncertainty in the prediction or option taken; and
- Coping with the wide range of environmental influences.

Before examining aspects of the environment in depth, it is useful to begin by exploring the basic factors in the environment that influence corporate strategy. Johnson & Scholes (2002) provide a framework for analyzing the business environment figure 2.2.

Figure 2.2: ENVIRONMENTAL FRAMEWORK



Source: Johnson & Scholes (2002)

There are two further points about environmental analysis that are worth noting:

- Otherwise ably managed companies are frequently taken by surprise by events what may seem to the observer to have been quite predictable;
- Managers are prone to describe their failures as bad luck and their successes as good management.

Both points illustrate a key factor in environmental analysis - it isn't entirely objective. Information is coloured by the perceptions, expectations and prejudices of the manager. As elements of the environment change, the organization needs to adjust its corporate strategy.

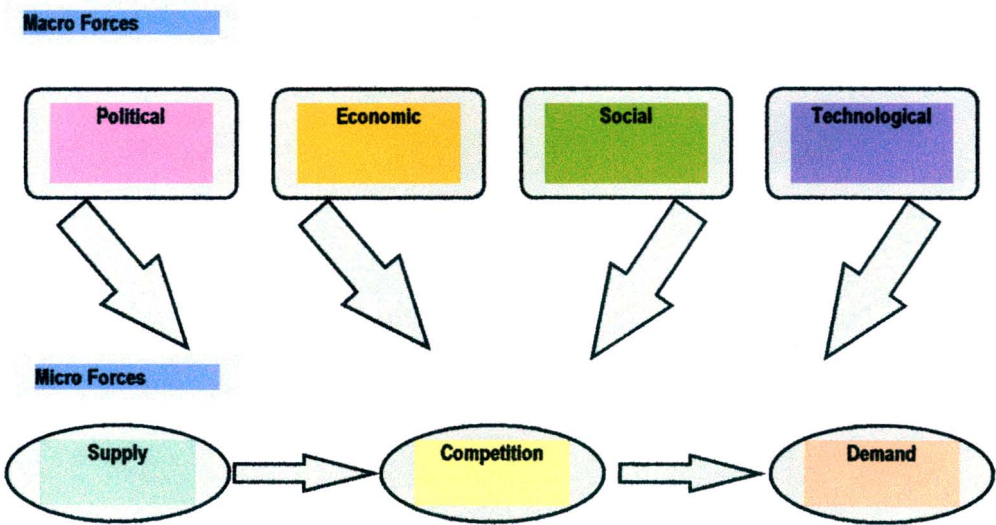
2.4.2 ANALYSING THE GENERAL ENVIRONMENT

According to Pearce & Robinson (2000:71) the remote environment comprises factors beyond and usually irrespective of, any single firm's operating situation. It is already clear that there are no simple rules governing an analysis of the organization.

The business environment can be sub-divided into four sections as reflected in Figure 2.3. These sections can be described as the Political, Economic, Socio-cultural and

Technological aspects of the environment. This allows one to conduct what is often a called a ‘PEST’ analysis. There are many variants to this, some analysts include the green ‘ENVIRONMENT’ and form the acronym ‘STEEP’; some add ‘O’ for ‘OTHER’, a catch all category for events not easily classified under other headings, forming an acronym ‘PESTO’ and others include ‘LEGAL’ and ‘ENVIRONMENTAL’ to form ‘PESTLE’.

Figure 2.3: PEST FORCES



Source: Strategic Analysis and Action 5th Edition (2002) Pearson Education Canada

PEST analysis provides a systematic technique for analyzing the business environment as it can highlight the biggest influences on the strategy of the organization, both currently and in the future. These influences can be both positive and negative. In addition, influences often cross the divide between the four headings however the important point is that they should appear somewhere in the analysis. The key is to identify and concentrate upon those factors/trends likely to have the biggest impact upon the future of the organization. Johnson & Scholes (2002) outline some of the most likely factors of a PEST analysis and this is presented in Figure 2.4.

Figure 2.4: PEST analysis of environment

<p>1. What environmental factors are affecting the opposition?</p> <p>2. Which of these are the most important at the present time? In the next few years?</p>	
<p>Political/legal</p> <ul style="list-style-type: none"> ♦ Monopolies legislation ♦ Environmental protection laws ♦ Taxation policy ♦ Foreign trade regulations ♦ Employment law ♦ Government stability 	<p>Economic factors</p> <ul style="list-style-type: none"> ♦ Business cycles ♦ GNP trends ♦ Interest rates ♦ Money supply ♦ Inflation ♦ Unemployment ♦ Disposable income ♦ Energy availability and cost
<p>Sociocultural factors</p> <ul style="list-style-type: none"> ♦ Population demographics ♦ Income distribution ♦ Social mobility ♦ Lifestyle changes ♦ Attitudes to work and leisure ♦ Consumerism ♦ Levels of education 	<p>Technological</p> <ul style="list-style-type: none"> ♦ Government spending on research ♦ Government and industry focus of technical effort ♦ New discoveries/ development ♦ Speed of technology transfer ♦ Rates of obsolescence

Source: Johnson & Scholes (2002)

Figure 2.4 presents some of the main items that might be considered when undertaking a PEST analysis. Like all checklists, a PEST analysis is really good as the individual or group preparing it. A key objective of analyzing the general environment is identifying anticipated significant changes and trends among external elements. With a focus on the future, the analysis of the general environment allows firms to identify opportunities and threats.

2.4.3 INDUSTRY ENVIRONMENT ANALYSIS

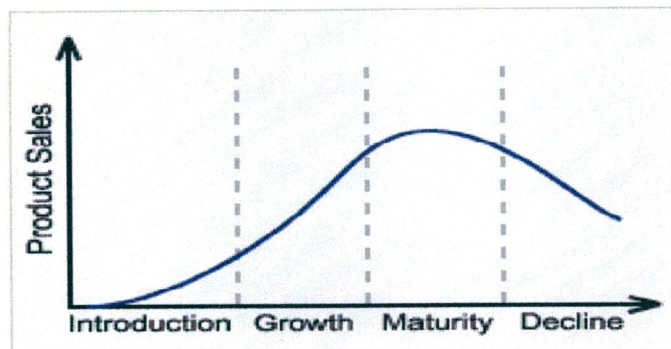
Whilst the **general environment** is important, the more immediate environment that surrounds most organizations is the industry environment. The concern of most managers is on the ways the competitive environment will impact upon their own organizations. Accordingly an industry can be defined as a group of firms producing products that are close substitutes and in the course of competition, these firms influence one another. Typically, industries include a rich mix of competitive strategies that companies use in pursuing strategic competitiveness and above-average returns. In part, these strategies are chosen because of the influence of the effects of an industry's characteristics (Brush, Bromiley & Hendrickx, 1999).

There are numerous options available to strategists analyzing the industry environment and these are explored below:

- **ANALYSING THE INDUSTRY LIFE CYCLE**

The well-known strategic writer, Professor Michael Porter from Harvard University Business School, has described the industry life cycle as ‘the grandfather of concepts for predicting industry evolution’ (Lynch, 2000:112). The basic hypothesis is that an industry or a market segment within an industry goes through four basic phases of development, each of which has implications for corporate strategy (Lynch, 2000:112). The different stages in the life cycle of an industry are shown below in Figure 2.5.

Figure 2.5: LIFE-CYCLE MODEL₂



Source: www.quickmba.com (2003)

The nature of corporate strategy usually changes as industries move through different stages of the life cycle. To explore the strategic implications, it is useful to start by identifying what stage an industry has reached in terms of its development (Lynch, 2000:113).

The reason for such an analysis at the corporate strategy level is to identify the dynamic factors that are shaping the industry's evolution however there are certainly some difficulties with the application of the industry life cycle approach. It is sometimes difficult to determine the duration of some life cycles and to identify precisely the stage an industry has reached or some industries miss stages or stages cannot be identified clearly due to technological changes.

- **KEY FACTORS FOR SUCCESS IN AN INDUSTRY**

In a strategic analysis of the environment, there is an immense range of issues that can potentially be explored, creating a problem for most organizations, which have neither the time nor the resources to cope with such an open-ended task (Lynch, 2000:123). Japanese strategist, Kenichi Ohmae, the former head of management consultants McKinsey, in Japan, has suggested a way of tackling this matter by identifying key factors of success that are likely to deliver the company objectives (Ohmae, 1983). According to Ohmae, identifying the key factors for success in the industry and then using these factors to focus the analysis on particularly important environmental matters can narrow the analysis down.

Ohmae stated that the resources of capital, skills and other attributes of the organization are scarce and accordingly should be concentrated on the key activities of the organization in order to deliver success in the market place. This concept of key factors for success is also consistent with Michael Porter's view, which states that there are factors that determine the relative competitive positions of companies within an industry (Porter, 1985).

- **IDENTIFYING THE KEY FACTORS FOR SUCCESS IN THE INDUSTRY**

Key factor analysis focuses on both the resources of an organization and the competitive environment. According Ohmae there are three principal areas that need analysis (Ohmae, 1983: 96):

- i). Customers - who are our customers? Who are our potential customers?
Are there any special segments that we dominate?
- ii). Competition - who are our competition? What are the main factors in the market that influence competition? How intense is competition?
What is necessary to achieve market superiority?

- iii). Corporation - what resources do we have? How do they compare with competitors? What do they deliver to customers? What is the majority of our costs concentrated in?

- **THE IMPORTANCE OF KEY FACTORS FOR SUCCESS IN DIRECTING STRATEGIC ANALYSIS**

Key factors for success are easier to define in principle than examine in practice. They are worthwhile considering if they prompt a thorough examination of what drives profitability or other measures of success in an industry and in the company itself. When key factors for success have been correctly identified, they can provide a checklist for the rest of the strategic analysis process (Lynch, 2000:255).

- **CRITICAL COMMENT OF THE CONCEPT**

Essentially the key factors of success analysis should be employed with caution and the reasons are explained below. Ghemawat (1991:11), expressed criticism of the key factors of success, which is elaborated below:

- i). **Identification** – it is difficult to pick out the important factors
- ii). **Causality of relationships** – even though they have been identified, it may not be clear how they operate or interact.
- iii). **Dangers of generalizing** – the competitive advantage of a single organization, by definition, cannot be obtained by seeking what is commonly accepted as bringing success to all organization in an industry
- iv). **Disregard of emergent perspectives** – success may come from change in an industry, rather than the identification of the current key factors of success.

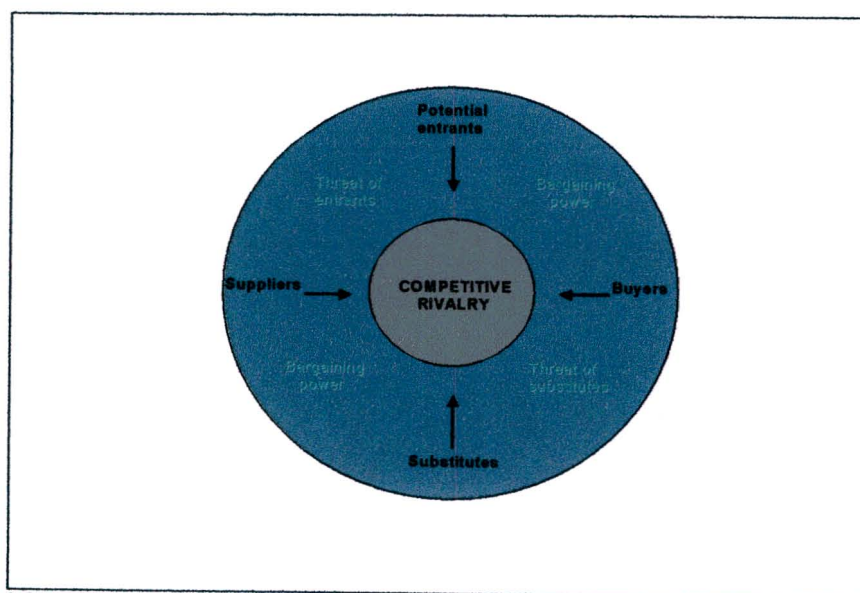
- **ANALYZING PORTER'S FIVE FORCES THEORY**

An industry analysis usually begins with a general examination of the forces influencing the organization. The objective of such a study is to use this to develop the competitive advantage of the organization to enable it to defeat its rival companies. Much of the analysis was structured and presented by Professor Michael Porter of the Harvard University Business School (Kay, 1993:28).

According to Porter, whether an industry produces a commodity or a service, or whether it is global or domestic in scope, the level of competition in an industry depends upon the strength of the competitive forces to which it is exposed. These forces, act individually and together to determine the ultimate profit potential of the industry and are a result of the structure (the underlying economics) of the industry. Many of the broad influences identified through PEST analysis have an impact upon organisations through the way in which they affect the underlying competitive structure of the industry.

An understanding of the competitive dynamics of an industry requires analysis of the structural factors influencing each of these five forces of competition:

Figure 2.6: PORTER'S FIVE FORCES



Source: Adapted from M. E. Porter, *Competitive Strategy*, Free Press, 1980.

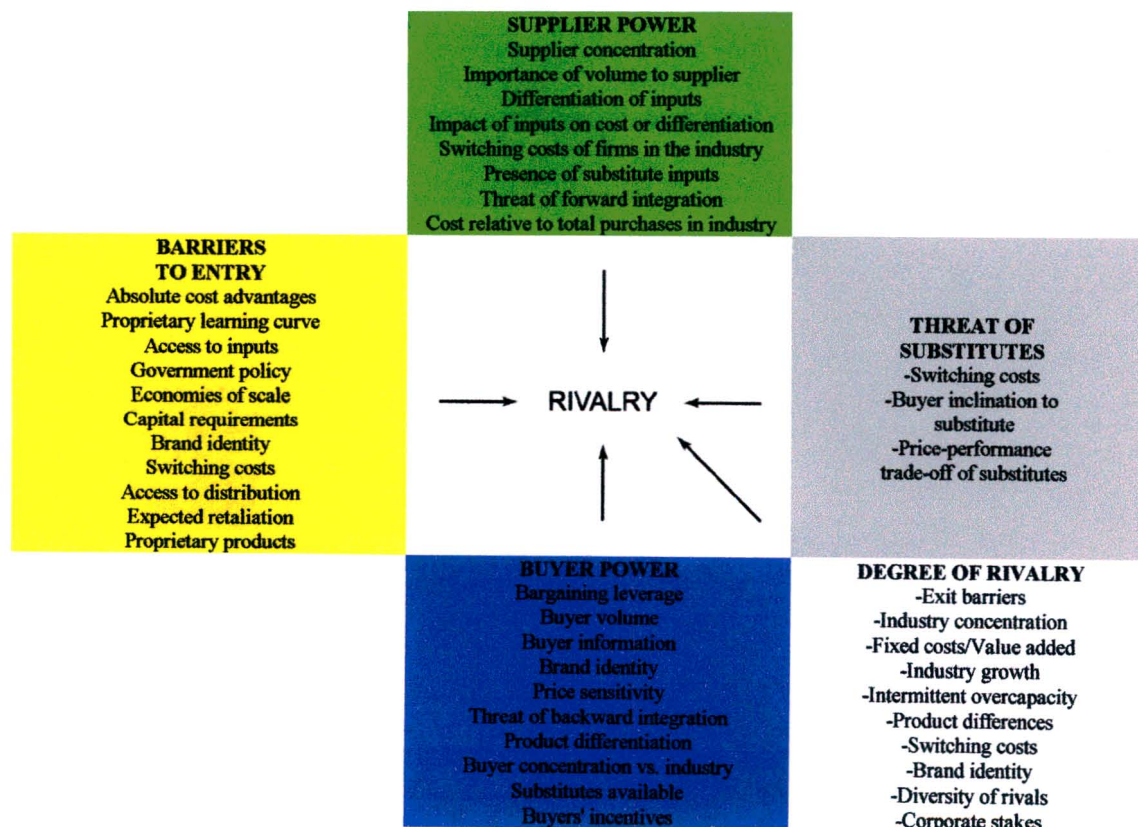
These forces, which go beyond the immediate competitors in the industry, are:

- the threat of **new entrants**;
- the existence of **substitute products** or services;
- the bargaining **power of suppliers**;
- the bargaining **power of customers** or buyers;
- **existing rivalry** within the industry.

• **WHAT FACTORS AFFECT COMPETITION IN AN INDUSTRY?**

The ultimate strength of competition in an industry depends on the collective strength of these forces. To understand which of these forces is likely to be the most significant means investigating the underlying structural conditions that underpin them which illustrated in figure 2.7.

Figure 2.7: PORTER'S FIVE FORCES MODEL



Source: Michael E. Porter. Competitive Strategy: Techniques For Analyzing Industries And Competitors, 1998 , The Free Press.

The basic assumption of the model is that all organizations will wish to benefit and protect their own interests first (Lynch, 2000: 125). Assessing each of the competitive forces in turn, by identifying the structural factors, which are significant in each case, will allow an understanding of the dynamics of the industry (its underlying economics). This approach also allows individual companies to understand the directions from which they face the greatest competitive pressures and allows them to tailor their strategies to meet these pressures.

- **CRITICISMS OF THE FIVE FORCES MODEL**

Porter's five forces model is a useful early step study in analyzing the environment, but it has been the subject of some critical comment (Lynch, 2000:131):

- That the model is static and does not truly reflect the competitive environment which experiences rapid change;
- That the assumption that an organization's interests comes first is perhaps incorrect or subject to debate;
- The model is limited in that it does encompass key aspects such as human resource issues, culture or skills issues.

In spite of the criticisms, Porter's model provides a very useful starting point in the analysis of the environment as it raises issues in a logical and structured framework and as such is a recommended first step in corporate strategy development (Lynch, 2000: 131).

- **IDENTIFYING THE COMPETITIVE POSITION**

Whilst the Five Forces Framework can give a good insight into the overall competitive dynamics of an industry, such an analysis does not fully explain how differing organizations choose to compete against each other within the industry. There is a need to understand how these organizations position themselves relative to the other competitors within the industry. Two techniques offer insight into this issue:

- **STRATEGIC GROUP ANALYSIS**

Even within the same industry, not all competitors' will be following similar strategies or competing directly against each other. Michael Porter suggests the use of strategic group analysis to identify the ways in which particular groups of companies compete within the industry. Strategic Group Analysis is useful to:

- Identify firms with similar characteristics;
- Identify the most direct competitors;
- Identify mobility barriers;
- Identify strategic opportunities ('strategic spaces') and strategic threats and problems.

The key to this approach is to identify two or three sets of characteristics that seem to establish key differences between the companies or groups of companies.

- **MARKET SEGMENTATION ANALYSIS**

As well as competing in different ways, companies are also unlikely to seek to serve the same customers. People's tastes and needs differ, so not all products and services are likely to meet their requirements. By identifying these different requirements through market segmentation analysis, companies can change their strategies to more closely appeal to the needs of particular groups of customers, so defining a position within the market that is more favourable relative to the forces of competition.

Markets can be segmented in many different ways using characteristics of particular customers (like age, gender, income, location and family size) or the nature of the customers' purchase needs or product use.

2.5 COMPETITOR ANALYSIS

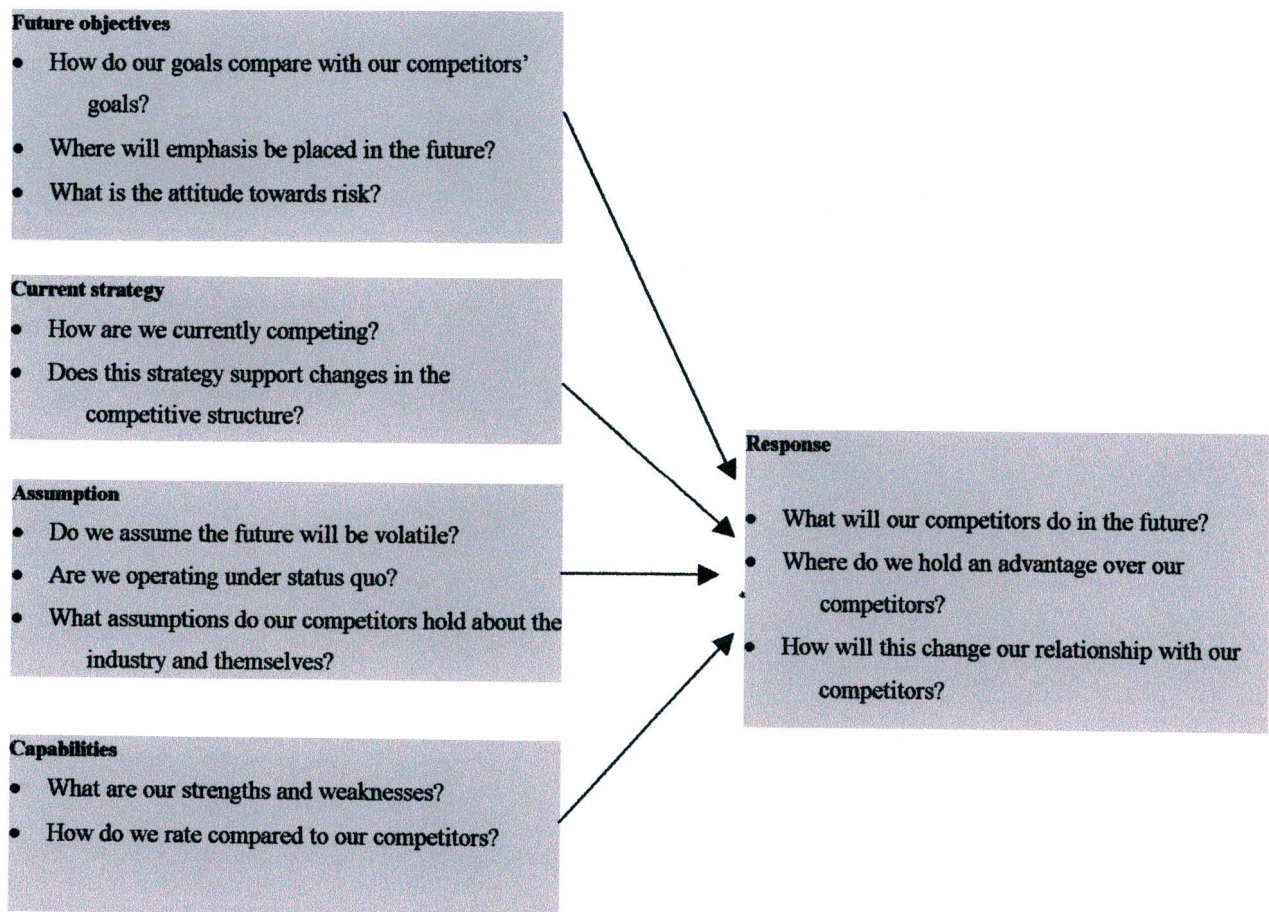
The competitor environment is the final part of the external environment analysis. Competitor analysis focuses on each company against which a firm competes directly.

Accordingly when engaged in a competitor analysis, the firm seeks to understand (Porter, 1980: 49):

- What drives the competitor, as shown by its future objectives;
- What the competitor is doing and can do, as is revealed by its current strategy;
- What the competitor believes about itself and the industry, as shown by its assumptions; and
- What the competitor's capabilities are?

Information about these four issues helps a firm to prepare an anticipated response profile for each competitor as indicated in figure 2.8. Thus, the results of an effective competitor analysis help a firm to understand, interpret and predict its competitors' actions and initiatives (Young, 1999:52).

Figure 2.8: COMPETITOR ANALYSIS COMPONENTS



Source: Hanson, D & P Dowling, (2001)

Critical to effective competitor analysis is the gathering of data and information that can help the firm to understand competitors' intentions and strategic implications resulting from them (Norman, Ireland, Artz & Hitt, 2000). Beyond this, some firms forget to analyze competitors' future objectives as they attempt to understand their current strategies, assumptions and capabilities, resulting in incomplete insights about those competitors.

The analysis of the external environment is a key task within the process of creating strategy. An understanding of the nature of the environment is important in order to identify the strategic opportunities and threats that organizations face. In discussing the nature of the external environment, it is evident that environmental influences are becoming more complex and dynamic. This increases the importance for systematic analysis in order to identify and understand the potential influences upon organizations. Such an analysis is possible by distinguishing between the general environment affecting all organizations, the more immediate competitive environment that affects organizations in particular industries and the competitive position of individual organizations with respect to others within the industry.

2.6 INTERNAL ANALYSIS

Whilst it is clear that the external environment in which an organization operates will have a significant impact upon its performance, this is hardly the whole story. Even a superficial glance across a range of organization's involved in the same area of activity will reveal differences in performance, whatever the measure used. It is clear that what organizations do, as well as how well they do it, will have a significant impact upon their success or failure.

In recent years, the study of strategy has focused increasingly upon the capabilities of the organization to use the resources available to it in order to build success. As a result, a range of frameworks and techniques has been developed in order to understand and analyze the strategic capabilities of organizations. These frameworks and techniques are explored below.

2.6.1 THE NEED FOR CAPABILITIES ANALYSIS

Organizations have different strengths and weaknesses, which means that they have different abilities to deal with the threats and opportunities presented by the external environment. In an increasingly unpredictable world it is also important to understand how well equipped an organization is to cope with the changes.

Internal analysis of an organization aims to identify and understand the strategic capabilities it possesses that will lead it to deal successfully with the challenges it faces, currently and into the future, by meeting the needs and requirements of its customers and users, better than other providers (Johnson & Scholes, 2002).

The focus of capability analysis is upon the identification of those factors that will allow an organization to outperform its competitors. This is achieved by (Johnson & Scholes, (2002):

- Assessing the resources of the organization through a resource audit and exploring the traditional SWOT analysis;
- Identifying the key activities and linkages between activities across the organization through value chain analysis;
- Understanding the bases of competitive advantage that underpin potential unique resources and core competences;
- Identifying and analyzing the core competences and strategic capabilities of the organization.

The overall approach taken here is to see strategic capability as resulting from the resources the organization owns or to which it can gain access, the way in which it performs and links together activities to create competences that use these resources, so creating products and services valued by users.

In “Exploring Corporate Strategy”, Gerry Johnson & Kevin Scholes (2002) split these resources and competences between those that are similar to those possessed by other providers and those that are better or difficult to imitate. This is shown in Figure 2.9.

Figure 2.9: A TYPOLOGY OF RESOURCES AND COMPETENCES

	Same as competitors or easy to imitate		Better than competitors or difficult to imitate	
	Resources		Competences	
	Necessary Resources		Unique Resources	
	Threshold Competences		Core Competences	

Source: Johnson & Scholes (2002)

Necessary resources and threshold competences are needed by organizations simply to compete in an industry or provide a service. However, as success depends upon performing better than your competitors, sustainable competitive advantage is the result of possessing unique resources and/or core competences that set an organization apart from others and allow it to deliver a superior product or service to users.

Given the stress upon the difficulty of imitation, core competences are seen as particularly valuable as they are based on how the organization works and tend by their nature to be hidden and unique. Mahen Tampoe (2000) defined core competence as *‘a technical or management subsystem, which integrates diverse technologies, processes, resources and know-how to deliver products and services which confer sustainable and unique competitive advantage and added value to an organization’*.

2.6.2 THE RESOURCE-BASED VIEW

The resources available to the organization can be critical to strategic success. If an organization does not have the quantity of resources necessary, or they are not of sufficient quality, then it is unlikely that the organization’s strategy will be realized. Further, as argued above, necessary resources are also available to competitors so offer no more than the opportunity to participate, whilst unique resources may contribute to competitive advantage.

The resources of the organization go beyond a simplistic list of the factors of production, land, labour and capital, to include the skills possessed within the organization and resources created by previous activities. In auditing the resources of an organization it is also important to consider not only those resources it owns but also those to which it has access. In broad terms, resources can be split tangible assets, intangible assets and organizational capabilities.

Pearce & Robinson (2000:199) provide four guidelines when using the resource-based view in internal analysis:

- Disaggregate resources – break them down into specific competencies rather than stay with broad categories;
- Utilize a functional perspective;
- Look at organizational processes and combinations of resources and not only at isolated assets or capabilities.
- Use the value chain approach to uncover organizational capabilities, activities and processes that are valuable potential sources of competitive advantage.

Although the resource-based view analysis enables a systematic assessment of internal resources, it is important to stress that a meaningful analysis of those resources best takes place in the context of the firm's competitive environment. Possessing valuable resources will not generate commensurate profits unless resources are applied in an effective product market strategy and they must be deployed in an optimum way and align related activities for the firm to pursue its chosen sources of competitive advantage. Traditional strategy formulation – externally positioning a firm to capitalize on its strengths and opportunities and to minimize its threats and weaknesses – remain essentially to realizing competitive advantage envisioned from a resource-based view (David & Montgomery, 1997:30).

The next section examines a traditional approach, often called the SWOT analysis, as a conceptual framework that may complement the resource-based view in conducting a sound internal analysis.

2.6.3 SWOT ANALYSIS

A scan of the internal and external environment is an important part of the strategic planning process. Environmental factors internal to the firm usually can be classified as strengths (S) or weaknesses (W), and those external to the firm can be classified as opportunities (O) or threats (T). Such an analysis of the strategic environment is referred to as a **SWOT** analysis. The SWOT analysis provides information that is helpful in matching the firm's resources and capabilities to the competitive environment in which it operates. As such, it is instrumental in strategy formulation and selection. The following diagram shows how a SWOT analysis fits into an environmental scan:

- **THE SWOT MATRIX**

A firm should not necessarily pursue the more lucrative opportunities as it may have a better chance at developing a competitive advantage by identifying a fit between the firm's strengths and upcoming opportunities. In some cases, the firm can overcome a weakness in order to prepare itself to pursue a compelling opportunity. To develop strategies that take into account the SWOT profile, a matrix of these has been constructed and is shown below:

Figure 2.10 - SWOT / TOWS Matrix

	Strengths	Weaknesses
Opportunities	S-O strategies	W-O strategies
Threats	S-T strategies	W-T strategies

- **S-O strategies** pursue opportunities that are a good fit to the companies' strengths;
- **W-O strategies** overcome weaknesses to pursue opportunities;
- **S-T strategies** identify ways that the firm can use its strengths to reduce its vulnerability to external threats;

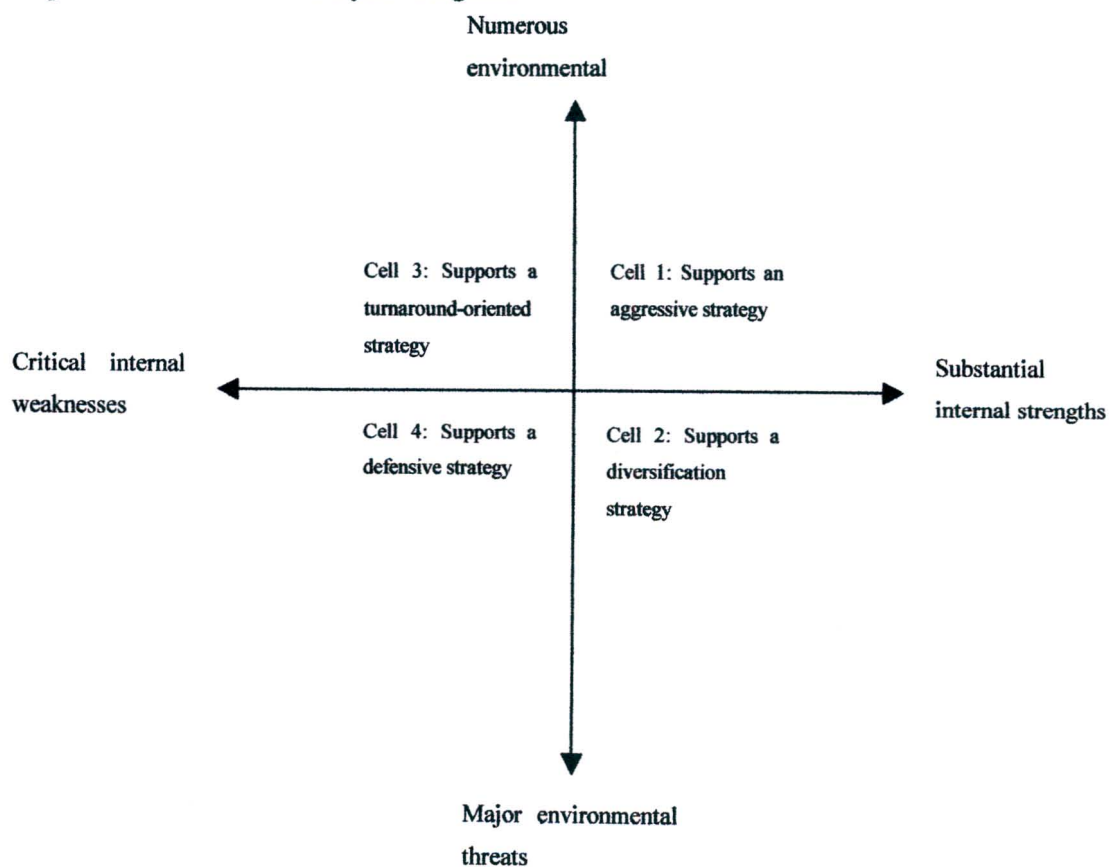
- **W-T strategies** establish a defensive plan to prevent the firm's weaknesses from making it highly susceptible to external threats.

SWOT analysis can be used in many ways to aid strategic analysis. The most common way is to use it as a logical framework guiding systematic discussion of a firm's resources and the basic alternatives that emerge from this resource-based view.

• SWOT ANALYSIS DIAGRAM

The diagram in figure 2.11 illustrates how SWOT analysis builds on the results of an resource-based view analysis of a firm to aid strategic analysis. Key external opportunities and threats are systemically compared with internal resources and competencies, that is, strengths and weaknesses, in a structures approach. The objective is identification of one of the four distinct patterns in the match between a firm's internal resources and external situation.

Figure 2.11: SWOT Analysis Diagram



Source: Pearce & Robinson (2000)

- Cell 1 is the most favourable situation; the firm faces several environmental opportunities and has numerous strengths that encourage pursuit of those opportunities. The situation suggests growth-oriented strategies to exploit the favourable match.
- Cell 2 a firm whose resource –based view has identified several key strengths faces an unfavourable environment. In this situation, strategies would seek to redeploy those strong resources and competencies to build long-term opportunities in more opportunistic product markets.
- Cell 3 faces impressive market opportunity but is constrained by weak internal resources. The focus of strategy for such a firm is eliminating the internal weaknesses so as to more effectively pursue the market opportunity.
- Cell 4 is the least favourable situation, with the firm facing major environmental threats from a weak resource position. This situation clearly calls for strategies that reduce or redirect involvement in the products or markets examined by means of SWOT analysis.

SWOT analysis has been a framework of choice among many managers for a long time because of its simplicity and its portrayal of the essence of sound strategy formulation. One of the historic deficiencies of SWOT analysis was the tendency to rely on a very general, categorical assessment of internal capabilities. The resource-based view came to exist in part as a remedy to this void in the strategic management field.

2.7 VALUE CHAIN ANALYSIS

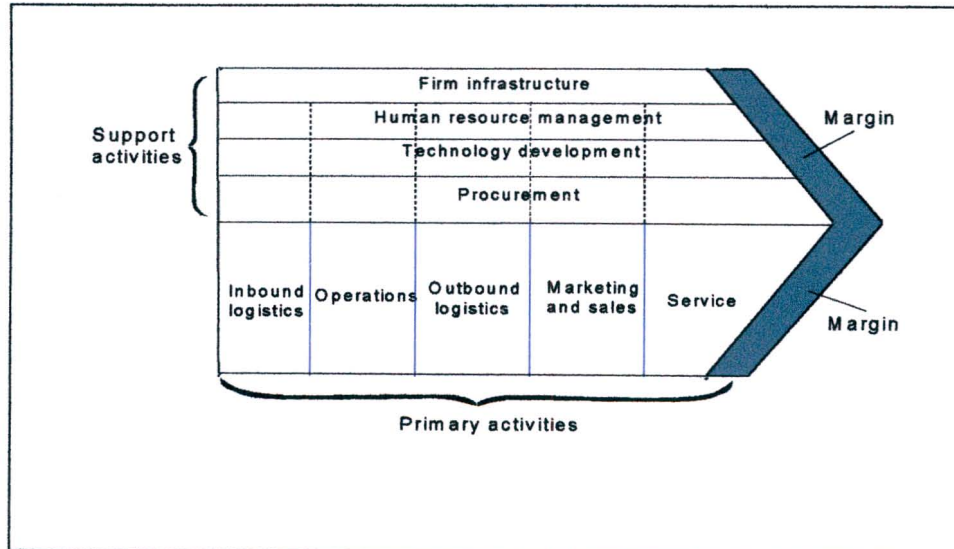
Whilst the resources available to an organization are important, the ways in which these resources are utilized by the organization are also critical to strategic success. Michael Porter outlined the concept of the value system and the value chain as a means of understanding how an organization could create competitive advantage through the activities it performs and the linkages between activities. The value chain provides a systematic basis for analyzing the activities an organization performs and the linkages between these activities. Through these activities the organization creates value and gains competitive advantage through reducing costs or increasing value more efficiently or more effectively than its rivals do.

Value chain analysis involves disaggregating the organisation into the specific activities it performs in creating the products or services valued by customers or users. The linkages between activities within and external to the organization's value chain also need to be identified. Once both these tasks have been undertaken, attention can be focused upon those activities and linkages that are critical to the creation of core competences.

2.7.1 ANALYZING VALUE CHAIN ACTIVITIES

Every organization is a collection of activities that are performed to design, produce, market, deliver and support its products and services. All these activities can be represented generically though the value chain depicted in Figure 2.12. The particular structure of an organization's value chain and the way it performs individual activities are a reflection of its history, its strategy, its approach to implementing its strategy and the underlying economics of the activities themselves.

Figure 2.12: VALUE CHAIN MODEL



Source: M.E Porter, Competitive Advantage, Free Press, 1985.

Value activities can be divided into two broad types:

Primary Activities - the activities involved in the physical creation of the product and its sale and transfer to the buyer as well as after sale assistance. The five primary

activities are divided into inbound logistics, operations, outbound logistics, marketing and sales, and service.

Support Activities - primary activities are supported by purchased inputs, technology, human resources and various wide-wide functions. Figure 2.12 reflect the fact that procurement, technology development and human resource management can be associated with specific primary activities as well as support the entire chain. Firm infrastructure in particular supports the entire chain.

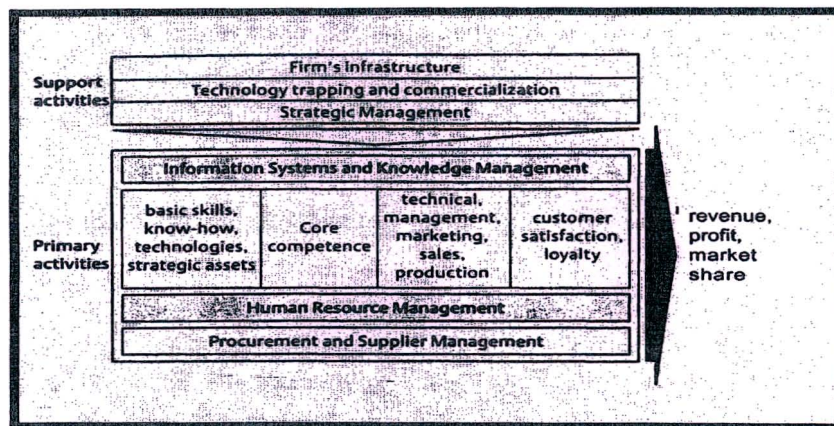
2.7.2 ADAPTING THE VALUE CHAIN

Whilst the value chain is a very useful tool for strategic analysis, the generic framework needs to be adapted to suit the different conditions of individual organizations. Certainly, it is easier to apply the framework to a manufacturing company than a service-based wide, where inbound and outbound logistics are often integrated into operations activities.

A number of changes have also been suggested to the generic framework. Information technology is now an integral part of the activities of almost all organizations irrespective of the products and services they provide and thus a key activity across their value chains. Even stripping away much of the hype about e-commerce, IT and communications technology are transforming the ways in which organizations operate, whether a car manufacturer with electronic procurement systems or a university providing distance learning courses via CD-ROM and an Intranet.

It has also been argued that people management and knowledge management are integral to the value chain, particularly in knowledge-based businesses. Increasing academic attention upon core competence has led to suggestions for further revisions to the framework. In their book, "Strategic Management", Hugh Macmillan & Mahan Tampon (2000) proposes a revised value chain to reflect many of these points. Their revision of the value chain is displayed in Figure 2.13.

Figure 2.13: REVISED VALUE CHAIN



Source: H Macmillan & M Tampoe, Strategic Management, Oxford University Press, 2000

2.7.3 THE BASES OF COMPETITIVE ADVANTAGE

The underlying assumption of strategic capability analysis is that sustainable competitive advantage results from an organization having access to unique resources and core competences. These factors are important because they allow the organization to lower costs or increase revenues more than its competitors.

Together, the unique resources and the activities and linkages that create core competencies contribute to competitive advantage by allowing the organization to exploit sources of cost efficiency or value added not available to other organizations or difficult for them to imitate. Therefore, it is important to understand and recognize these potential bases of competitive advantage and they are as follows:

- Economies of Scale is achieved when unit costs fall as the scale of output increases;
- Economies of scope were is also the possibility that cost savings can result from the simultaneous production of several different products in a single enterprise. Such costs savings are referred to as economies of scope.
- The Experience Curve relates to the cost per unit output to the cumulative volume of output since the production process was first started.

- Creating Value added through differentiation occurs when an organization achieves competitive advantage by adding value to their products and services for which customers are willing to pay more. This is best achieved if the customer perceives the product or service to be different from others on offer - this is achieved through differentiation.

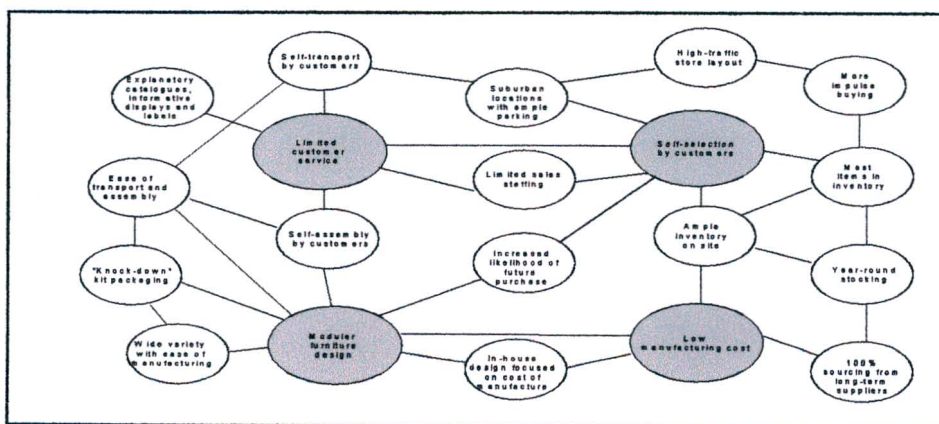
2.7.4 MEASURING ORGANIZATIONAL CAPABILITY

The definition of core competences discussed above highlighted that they are hidden, unique and extend across the organization. Consequently, overall strategic capabilities built on unique resources and core competences are difficult to identify. A further range of frameworks and techniques have been developed that can help make things more visible.

• ACTIVITY MAPPING

In his article “What is Strategy?” the ubiquitous Michael Porter (1996) illustrated how an activity-system map can highlight the core competences of an organization, linking it them to a cluster of other activities that support these higher-order themes. Prahalad & Hamel (1990:82) originally defined the core competencies as ‘collective learning in the organization, especially how to co-ordinate diverse production skills and integrate multiple streams of technology.’ An example of the activity-system map for the Swedish furniture retailer Ikea is shown in Figure 2.13.

Figure 2.13: AN ACTIVITY-SYSTEM MAP FOR IKEA



Source: M E Porter, “What is Strategy?”, Harvard Business Review Nov-Dec 1996

Whilst Porter goes into little detail on how to construct the map, it can still be useful in displaying the relationship between core competences and other activities once identified using other approaches. Porter (1996) argues that they can also help focus attention upon how well each activity contributes to core competences, by helping to identify weaknesses, gaps and redundant activities.

• STEPS TO IDENTIFY CORE COMPETENCES

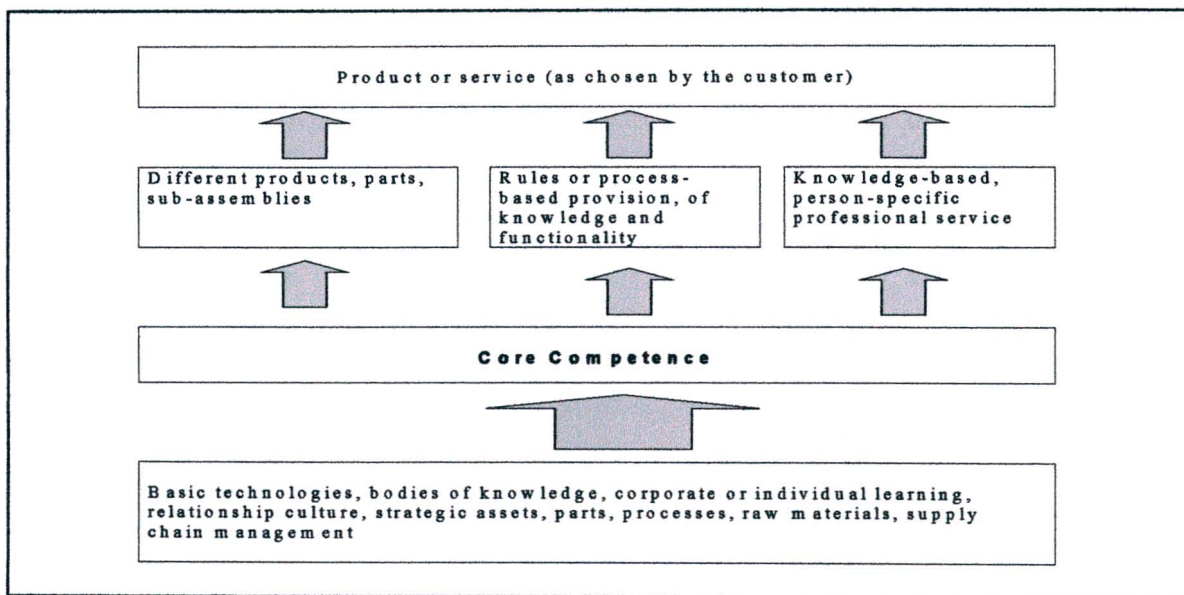
According to Prahalad & Hamel (1994: 225), “ *Core competencies are the soul of the company and as such they must be an integral part of the process of general management.* ” Johnson & Scholes (2002) outline a series of steps and questions that can help identify core competences:

- Identify successful business units within corporations – this is important in multi-business organizations that may be operating in many different markets.
- Identify the bases of perceived value from the perspective of customers – these are labeled the primary reasons for success. It is important here to identify those reasons where the organization performs better than its competitors.
- Unpack the bases for success by asking managers why the business is successful in creating each of the primary reasons. These are the secondary reasons for success and are likely to include activities where the organization is no better than its competitors but others where they again have an advantage.
- Unpack the secondary reasons for success by asking what operational activities contribute to these successes. Although difficult, this stage can reveal extensive explanations of why things work well in practice – sometimes by people breaking the rules or exploiting slack in the system.
- Look for patterns of explanation by linking factors within and between the levels.

• CORE COMPETENCE ANALYSIS

In “Getting to know your organization’s competences”, Mahen Tampoe (2000) highlights an approach based on the composition of goods and services. His definition of core competence though the model in his article suggests an interpretation that is closer to the more encompassing definition of strategic capability. First he highlights a model showing how core competence uses the resources available to the organization to create the goods and services bought by the customer. This is outlined in Figure 2.14.

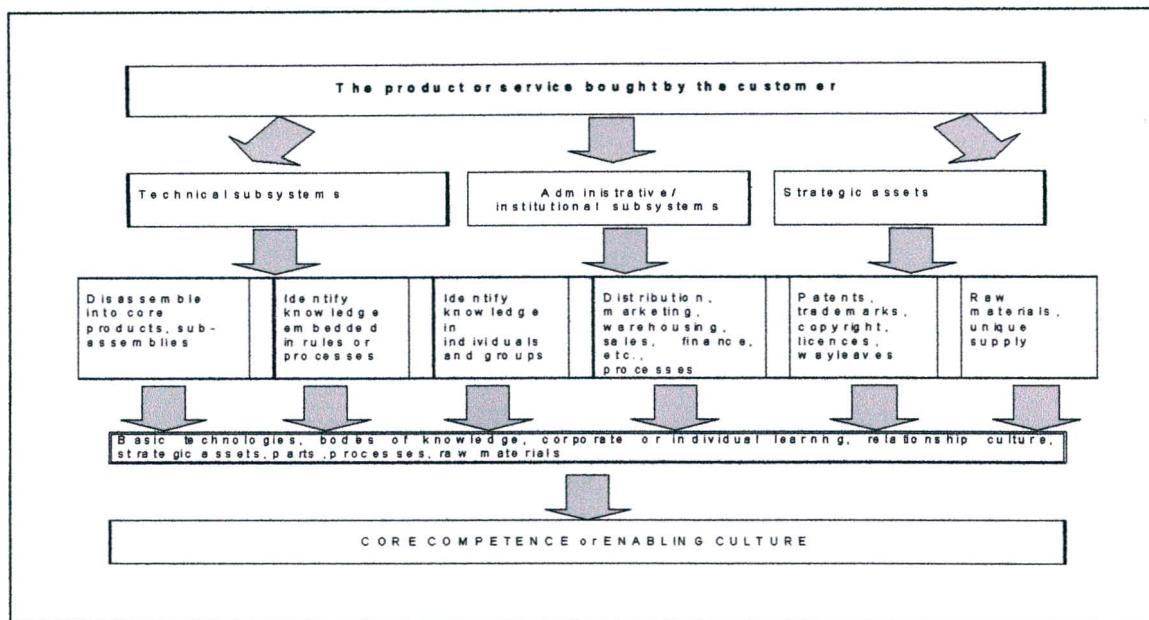
Figure 2.14: A CORE COMPETENCE MODEL OF THE COMPOSITION OF GOODS AND SERVICES



Source: Based on M Tampoe, “Getting to know your organization’s core competences”, in V Ambrosini et al., *Exploring Techniques of Analysis and Evaluation in Strategic Management*, Prentice Hall, 1998

Tampoe argues that this bottom-up model can be used to identify the core competences of an organization, but that a top-down approach is often of more use as an analytical method. This means starting with the final product or service and then breaking it down, through a series of stages, to arrive at the organization’s core competences. This approach is highlighted in Figure 2.15.

Figure 2.15:...A FRAMEWORK FOR UNRAVELING CORE COMPETENCE



Source: based on M Tampoe, "Getting to know your organization's core competences", in V Ambrosini et al., Exploring Techniques of Analysis and Evaluation in Strategic Management, Prentice Hall, 1998

In his article, Tampoe (2000) suggests that this breakdown can be achieved using the following steps:

- Analyze the revenue stream to identify products and services that make a significant contribution to the organization's success.
- Taking each product and service:
 - Disassemble them to identify core products and services, then disassemble these to identify the basic technologies, people skills, processes and strategic assets used.
 - Dissect services to identify core processes or unique talents that confer unique value to the service.
 - Relate products or services to the technical, administrative or institutional sub-systems of the organization.
- Analyze the sub-systems to find basic technologies, people skills, processes and strategic assets that combine to create the market strength of the core products or services. This is a core competence.
- Test core competences by asking:
 - Do they provide potential access to a wide variety of markets?

- Do they make a significant contribution to the perceived customer benefits of the end products and services?
- Are they difficult for competitors to imitate?

Having focused upon the ways in which an organization can create strategic capability based on the resources available to it and the competences it possesses to make use of these resources. The importance of unique resources and core competences that are better than those of competitors and difficult to imitate in the creation of sustainable competitive advantage was stressed.

The resources available to the organization can take various forms, but can generally be classified into physical, human, financial and intangible resources. Frequently, the most important resources of the organization are the intangible assets and resources that, by their very nature, are difficult to copy by competitors.

2.8 DEVELOPING STRATEGIC OPTIONS

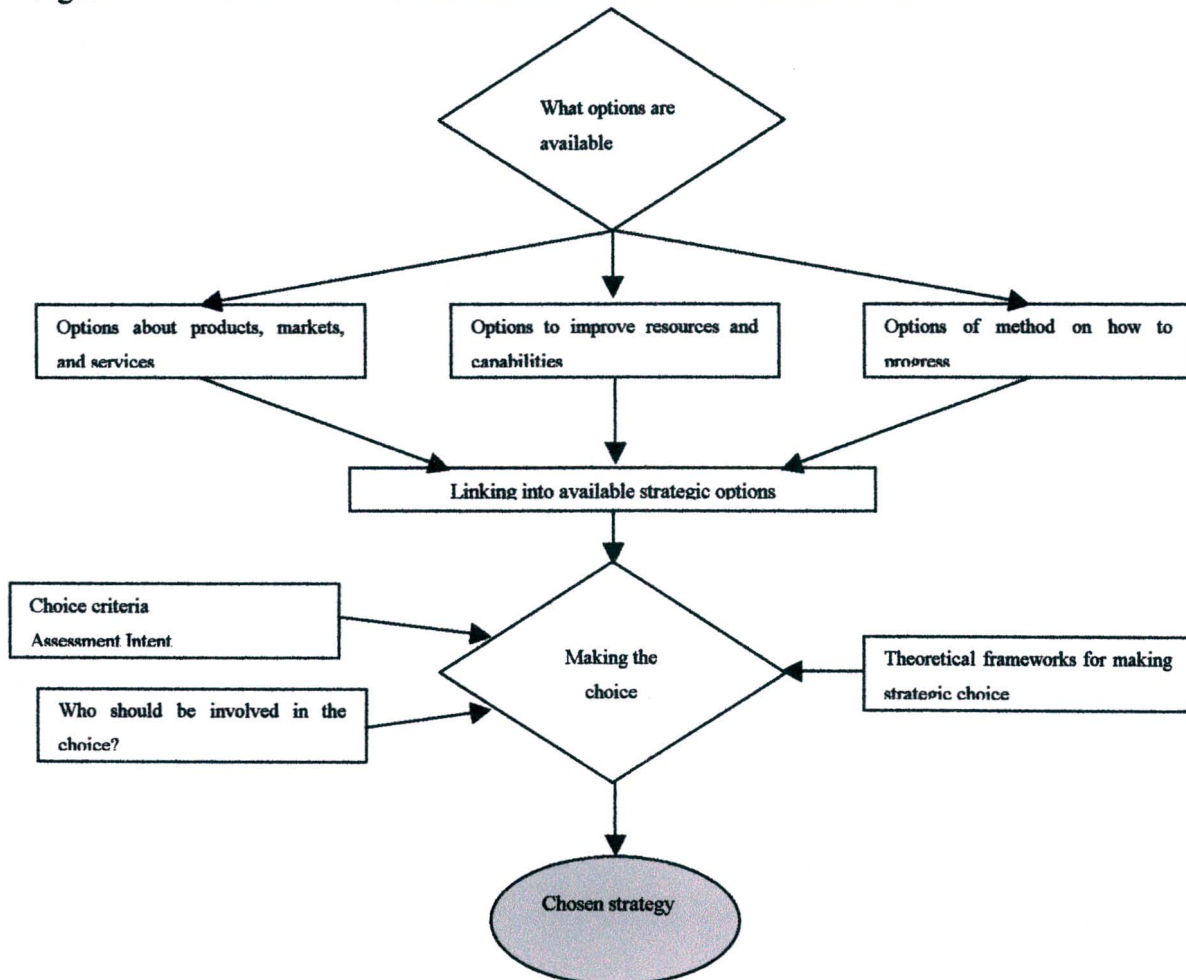
The development of strategy within an organization requires the application of a range of tools and techniques. By their nature they tend to be analytical, but it would be too restrictive to say that they are all limited to the first element of the analysis-choice-implementation model mentioned previously. Many of the techniques are used to assist in the analysis and evaluation of different options (choice) and others can assist in identifying problems in changing the organization, designing new structures or assisting in resource allocation and control (all elements of implementation).

2.8.1 STRATEGIC CHOICE

Strategic choice is the third logical element of the strategy formulation process. Choice is at the centre of strategy formulation. If there are no choices to be made, there can be little value in thinking about strategy at all. On the other hand, there will always, in practice, be limits on the range of possible choices. In the public sector, the genuine, politicians may make the genuine strategic choices so that the role of the manager is limited to devising how best to implement strategies rather than to ponder fundamental choices of future direction for themselves. In practice, the process for

choosing a strategy may be structured according to figure 2.16, although the reality is likely to be much messier.

Figure 2.16: STRUCTURE FOR MAKING STRATEGIC CHOICE



The chosen strategy will have to answer the questions 'what', 'how', 'why', 'who' and 'when', so each option will provide provisional answers to each of these questions.

- **OPTIONS FOR MARKETS AND PRODUCTS / SERVICES**

The most obvious type of option relates to which products or services to offer in which markets. Igor Ansoff was the first to suggest the diagram shown in figure 2.17 for structuring this decision.

Figure 2.17: ANSOFF MODEL

		PRODUCTS	
		Existing	New
MARKETS	Existing	Develop Current Position Withdrawal Consolidation Market Penetration	Product Development Product Range Extension New Product Range
	New	Market Development Market Extension New Uses Geographic Expansion	Diversification Related - Vertical Integration (Backward/Forward) - Horizontal Integration Unrelated Conglomerate

Source: Ansoff, Corporate Strategy (Penguin, 1987: 110)

The axes of the diagram are product (including services and any form of offering), market need (which can be any group of potential customers whether defined by their needs, inclinations or income brackets), and market geography (geographical location). The model defines four cells for the present market geography. The top-left of these cells represents the present status of the business. The possible future choices about products and markets can be represented as movements within or away from the cell. One set of choices is possible within the existing product / market set:

- 'do nothing' – that is, continue present strategies. This strategy is important as it is usual to compare any proposed change with the 'do nothing' as a baseline. The 'do nothing' option is rarely viable in the long term, as competitors will gradually take the market by improving products, processes or relationships.
- 'withdraw' – leave the market by closing down or selling out. This appears to be a negative option but may be necessary to focus available resources into areas of greater strength.
- 'consolidate' – attempt to hold market share in existing markets. This is a defensive option, which usually involves cutting costs and perhaps price. It is more common in markets that are mature or beginning to decline.
- 'market penetration' – increase market share of the same market. This is a more aggressive option and usually involves investing in product

development, advertising or channel development. Acquiring the businesses of competitors who are withdrawing from the market may be a necessary related resource option.

Other possible options (which involve moving out of the front left-hand top cell of figure 2.17 are either to develop or acquire new products (product development) or to address new market needs (market development). Diversification is entry into new markets with new products.

- **OPTIONS FOR BUILDING RESOURCES, CAPABILITIES AND COMPETENCE**

Just as strategic assessment was necessarily concerned with both the internal and external perspectives, so strategic choice has to consider options about resources, capabilities and competencies as well as those for markets and products. It may well be, therefore, that the strategic assessment has identified strengths and weaknesses in existing resources and capabilities in comparison with competitors,

The time-scales for developing resources and capabilities may be very long and may be longer than the time-scale for market entry. For instance people are a major resource, but changing the overall mix of people in a company is likely to take years or decades. Strategic options about building skills and experience may therefore have to precede choices to enter new markets or to develop individual products.

- **OPTIONS IN METHODS OF IMPLEMENTATION**

There are likely to be options in methods of implementation. There are many methods by which companies can grow their capabilities:

- Internal development – where the organization seeks to develop using its own resources and capabilities;
- Mergers and acquisitions – where the organization seeks to develop by buying another organization or two organizations combine their assets and activities;

- Strategic alliances – where organizations seek to develop using a range of approaches based on co-operation with other organizations.

Some of the many combinations of direction and method of corporate development are illustrated in Figure 2.18. Reflecting the fact that corporate development can involve changing the scope of an organization by getting out of some activities, as well as growing others, withdrawal is identified as a separate direction of development. Each of these methods is explored in greater detail below

Figure 2.18: COMBINING THE METHODS AND DIRECTIONS OF CORPORATE DEVELOPMENT

	Internal Development	Mergers & Acquisitions	Strategic Alliances
Withdrawal	Closure of a particular business operation	Disposal, de-merger or management buyout	Licensing of older brands to another manufacturer
Consolidation / Market Penetration	Marketing campaign to maintain/increase market share	Merger with existing competitor in market	Consortia of local councils to create combined fire & rescue service
Product Development	Increased research & development activity	Buy company which has created a new product	Agreement with competitor to jointly develop new product
Market Development	Open sales office in export market	Acquire company in export market	Joint venture between foreign entrant and local company
Diversification	Forward integration into distribution using own vehicles & warehouses	Acquisition of business in unrelated product & market activities	Retailer combines with banker to create telephone banking service

2.8.2 THEORETHICAL FRAMEWORKS FOR ASSISTING STRATEGIC CHOICE

In broad terms, two distinct approaches have emerged from the debate about this central issue within strategy content: the positioning approach and the resource-based approach (or more accurately, approaches). Much of the debate has concentrated upon two key questions:

- Is competitive advantage achieved by concentrating on either low cost or differentiation or should a strategy seek to exploit both low cost and differentiation?

- Does an organization develop strategy to respond to or shape the environment in which it exists – is strategy outside-in or inside-out?

As the primary purpose of the tools of strategic analysis is to help organizations to develop and implement successful strategies, then an understanding of the underlying context in which these models and frameworks can be applied is an important requirement. The ensuing discussion explores the development of these competing approaches to competitive advantage.

- **POSITIONING – AN OUTSIDE-IN APPROACH TO CREATING AND SUSTAINING COMPETITIVE ADVANTAGE**

This approach to strategy is associated particularly with Michael Porter and largely started the debate about the search for sustainable competitive advantage. As originally outlined in the mid-1980s, this was essentially an outside-in approach to strategy, which stressed the positioning of the organization within its environment: shaping the organization to meet externally imposed pressures. This approach is based upon the structure-conduct-performance paradigm drawn from industrial economics as presented below.

Figure 2.19 – The Structure – Conduct – Performance Paradigm



Source: Johnson & Scholes, Exploring Corporate Strategy, 2002, 6 Ed., Ch 4.

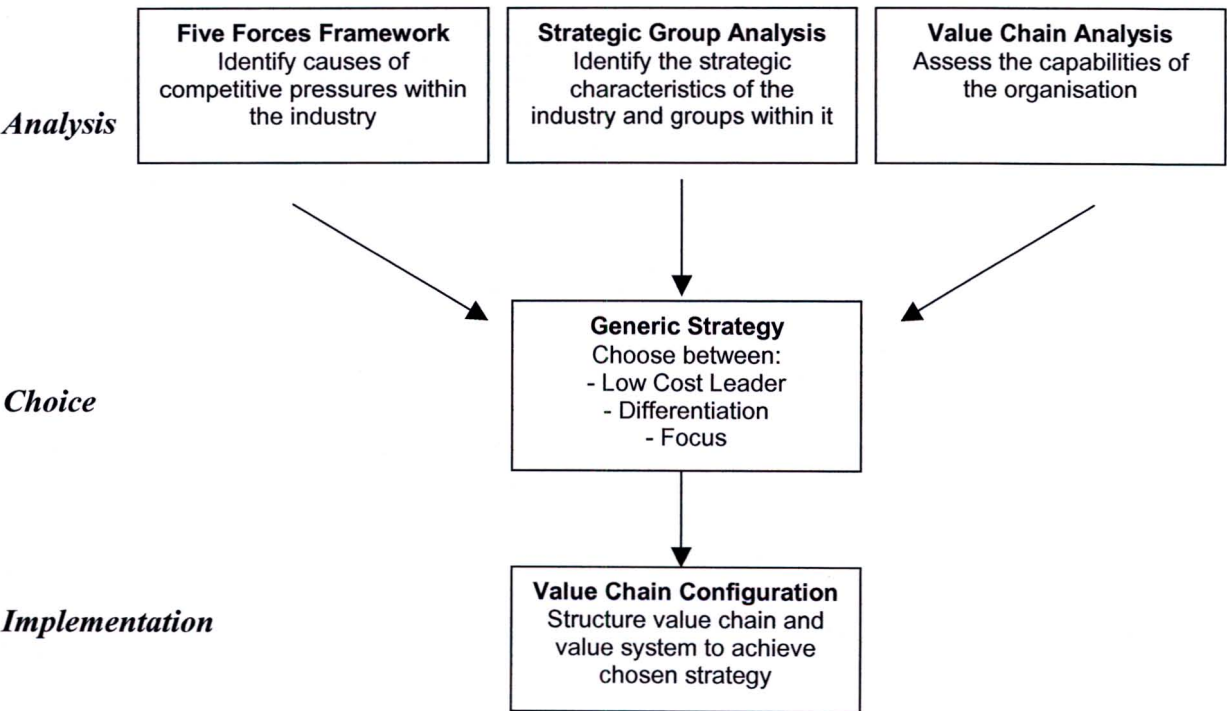
Porter argued that a company needed to understand the structure of its industry, so that it could change its strategy (its position within the industry) in order to achieve improved performance by outperforming its competitors. A successful strategy depended upon the company exploiting the underlying economic factors (such as economies of scale and scope) inherent within the industry better than its competitors and maintaining this over time so achieving sustainable competitive advantage. In

essence, this is an outside-in approach to strategy, with the company choosing a strategy that meets the challenges posed by the external environment.

- **POSITIONING APPROACH**

Michael Porter outlined the main features of his approach in his text *Competitive Advantage* that was first printed in 1985. In this book he brought together a series of tools and models, some of which he had outlined in his earlier work. Although not described by Porter in precisely these terms, the **analysis-choice-implementation** framework can be used to highlight how the tools and models come together within the positioning approach.

Figure 2.20: AN OUTLINE OF THE POSITIONING APPROACH



Source: Johnson & Scholes, Exploring Corporate Strategy, 2002, 6Ed. Ch 4

The positioning approach commences with an analysis of the external environment, the five forces framework being used to understand where the competitive pressures come from within the industry and strategic group analysis being used to better understand the main strategic characteristics within the industry and identify

particular competitor groups. A value chain analysis can also help the organization to understand its existing capabilities. In choosing a strategy the organization needs to consider how it can position itself against the forces of competition within the industry:

- by using its capabilities to provide the best defenses against these force(s);
- by influencing the balance of forces so that they favour the organization's strategy; or
- by anticipating shifts in forces and reacting to exploit them quicker than the competition.

Porter argues that positioning determines whether a firm's profitability is above or below the industry average. A firm that establishes a favourable position can earn high rates of return even if general conditions within the industry are unfavourable and the average profitability of the industry is modest.

Positioning depends upon exploiting the sources of competitive advantage that exist as a result of the underlying economic structure of the industry. Competitive advantage can be divided into two types - low cost or differentiation. A further dimension to be considered is the scope of activities over which advantage is to be sought - many segments of the industry or just one or two. Porter argues that requires organizations to make a choice between the generic strategies outlined in the diagram.

Figure 2.21: GENERIC STRATEGIES

		Competitive Advantage	
		Low Cost	Differentiation
Competitive Scope	Broad	Low Cost Leader	Differentiation
	Narrow	Low cost focus	Differentiation focus

Source - Adapted from M E Porter, Competitive Advantage, Free Press, 1985

The axes of figure 2.21 are therefore the scope of the chosen market and the chosen basis of competition. The four quadrants of figure 2.21 suggest four possible generic strategies. If the scope is narrow, the distinction between cost and differentiation becomes unimportant so Porter defined just three 'generic' strategies – cost leadership, differentiation, and focus (which combined the two lower squares in the diagram).

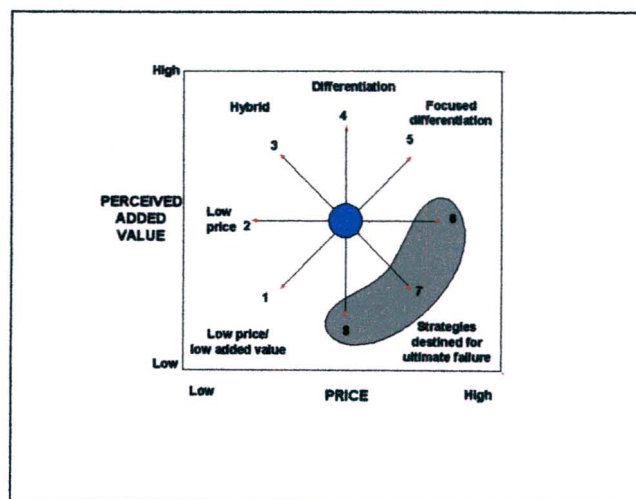
• ADAPTATIONS OF THE GENERIC STRATEGIES FRAMEWORK

Many of the early criticisms of the generic strategies framework at the heart of the positioning approach questioned Porter's clarity about the terms "low cost" and "differentiation".

- i). Did a low cost strategy mean selling at low prices?
- ii). Did a differentiation strategy require selling at a price premium?

Cliff Bowman (1996) developed an overall positioning approach, the "Strategy Clock" which offered some clarity on the aforementioned issues. Bowman (1996) argues that the key variables as far as positioning are concerned are those seen by the customer, which are price and perceived quality. The Strategy Clock allows for combinations of the original generic strategies and is illustrated below.

Figure 2.22: THE "STRATEGY CLOCK"



Source: Based on the work of Cliff Bowman. See C.Bowman and D.Faulkner. Competitive and Corporate Strategy, Irwin, 1996.

Using these two dimensions previously discussed, a range of generic options (routes) can be identified for an organization within an industry. Using the analogy of a clock there are broadly five potentially successful routes (combinations of price and perceived quality) and three routes ultimately likely to fail. These are illustrated in Figure 2.23.

Figure 2.23: THE STRATEGY CLOCK - BOWMAN'S COMPETITIVE STRATEGY OPTIONS

1 Low price/low added value	Likely to be segment specific
2 Low price	Risk of price war and low margins/need to be cost leader
3 Hybrid	Low cost base and reinvestment in low price and differentiation
4 Differentiation (a) Without price premium (b) With price premium	Perceived added value by user, yielding market share benefits Perceived added value sufficient to bear price premium
5 Focused differentiation	Perceived added value to a particular segment, warranting price premium
6 Increased price/standard	Higher margins if competitors do not value follow/risk of losing market share
7 Increased price/low value	Only feasible in monopoly situation
8 Low value/standard price	Loss of market share

Finally, it is worth highlighting the point that irrespective of whether the original generic strategy framework or the strategy clock is utilized, the positioning approach is not static. The relative positions of competitors will be constantly changing as their strategies change and new entrants come into the market place. Even if the company wants to maintain a particular strategy it will need to continually monitor how this will be seen within the market, making changes accordingly.

2.8.3 RESOURCE-BASED APPROACHES TO SUSTAINABLE COMPETITIVE ADVANTAGE

The emerging critique of positioning during the 1990s led to the development, by a number of different authors, of broadly similar views about the nature and creation of sustainable competitive advantage. Taken together these views form the basis of what has become known as the resource-based approaches that take a largely inside-out approach to the creation of sustainable competitive advantage. The views of some of the main proponents of these approaches are summarized below in Figure 2.24.

Figure 2.24: RESOURCE-BASED APPROACHES – VARIATIONS ON A THEME

Sustainable competitive advantage depends on:
<ul style="list-style-type: none">- Hard to imitate organizational capabilities based on business processes which distinguish a company from its competitors in the eyes of the customers - <i>Stalk, Evans & Shulman, "Competing on Capabilities", 1992</i>- Core competences based on skills and technologies - the collective learning of the organization - <i>Prahalad & Hamel, "The Core Competence of the Corporation", 1990</i>- Possession of capability differentials which are fed from a feedstock of intangible resources - <i>Hall, "A Framework for Identifying the Intangible Sources of Sustainable Competitive Advantage", 1994</i>- Distinctive capabilities which are a feature of its relationships, which others lack or cannot easily reproduce - <i>Kay, Foundations of Corporate Success, 1995</i>

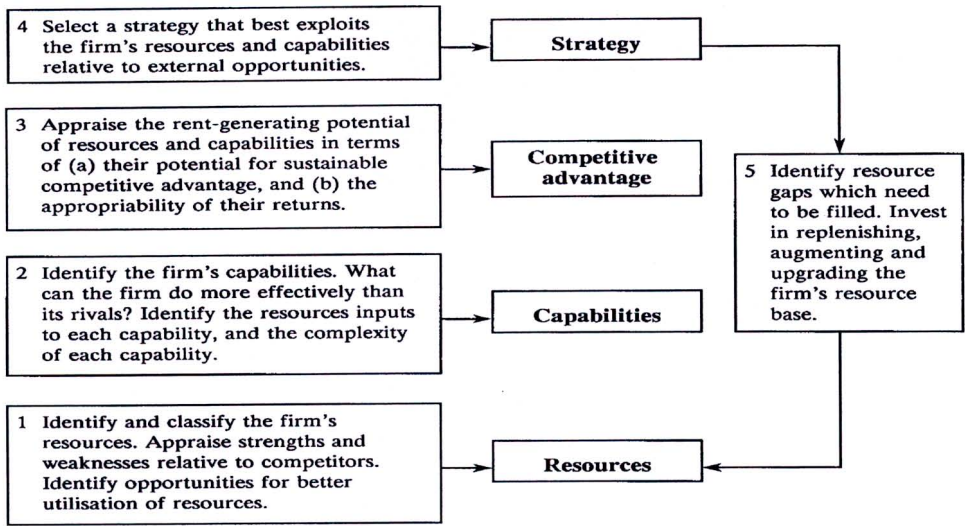
Whilst each author tends to use slightly different language, there is broad agreement on the way in which the resources and functional competences of the organization are linked together by cross-functional strategic capabilities in ways, which are difficult for competitors to copy. In these approaches the starting point is with the organization rather than the challenges posed by the external environment. Nevertheless the strategy can only be seen to be successful if it is seen to be different to the competition and valued by customers. Also implicit in such an approach is that all sources of advantage are available to be utilized, provided that this is done in a unique way. Further, there may be no need to choose between sources of low cost and differentiation.

• **RESOURCE BASED APPROACH**

Just as with the positioning approach, a range of tools and models can be used to assess and construct a suitable strategy. Many of the models, particularly the value chain, are used by proponents of both camps and the differences often lie in the way in which the tools and for what purpose they are used.

Grant (1999) gives an overview of a resource-based framework that can be used for strategy formulation, forming a useful link between the principles outlined above and strategy tools/models. The outline of this approach is illustrated in Figure 2.25.

Figure 2.25: GRANT’S RESOURCE-BASED FRAMEWORK



Source: Grant (1999)

Grant (1999) argues that the essence of strategy formulation is to design a strategy that makes the best use of a firm’s most important resources and capabilities. Building upon the previous point, he identifies these key resources and capabilities as “those which are durable, difficult to identify and understand, imperfectly transferable, not easily replicated, and in which the firm possesses ownership and control”.

For Grant, as with the other resource-based authors, this may well combine sources of cost efficiency and added value. In practice this means that many would dispute the underlying assumptions of Porter’s original generic strategy framework but that many could accept the options outlined within the strategy clock. The key is to recognize that whilst the resource-based approaches stress the importance of looking internally at the resources and capabilities of the organization, any successful strategy will still rest upon the strength of this mix of low cost and added value advantages relative to the external opportunities. Frequently, this is described in terms of the uniqueness that the strategy creates or is built upon.

• **CRITIQUES OF THE RESOURCE BASED APPROACHES**

Michael Porter leveled criticism about the resource based approach in his article published in 1996 called “What is Strategy?”

1. One Size Fits All? - Porter illustrated a point, that the resource-based approach may suit companies in certain industries but cautioned that it is dangerous to assume that similar strategies will suit all contexts.
2. Operational Effectiveness and Strategy – Porter made a distinction between operational effectiveness and strategy. Operational effectiveness meant performing similar activities better than rival competitors, whilst strategy was about performing different activities to rivals or performing similar activities in different ways.
3. Dangers of Hyper-competition - For Porter, the risk of pursuing operational effectiveness alone is that the competitors merely shift the productivity frontier outwards over time. Whilst absolute operational effectiveness increases, there is no relative improvement for any one competitor

• TOWARDS A COMBINED APPROACH

Despite the critique of resource-based approaches, Porter has moved from his 1985 position. Porter is in effect arguing that the search for competitive advantage is both outside-in and inside-out. Sustainable competitive advantage comes from a firm's capability to innovate better than its competitors over time, but at any moment in time its position relative to the competition will be crucial, but this position is both defined by the firm's activities and the market it seeks to serve. In effect, Porter has changed his own position, stressing both the need to be resource-based and to use positioning, albeit in a redefined sense, to sustain competitive advantage. This combination of approaches is also apparent in Bowman's "Strategy Clock" which is outlined in Johnson & Scholes (2002).

2.8.4 GROUPING OPTIONS INTO STRATEGIC OPTIONS

Options about products/markets, resources/capabilities and the method of implementation have to be combined into a much smaller number of strategic options. This may be a bottom-up or top-down process. The bottom-up approach implies linking what might be done in detail into potential strategies that seem to make wider sense. The top-down approach means testing general ideas of future direction against

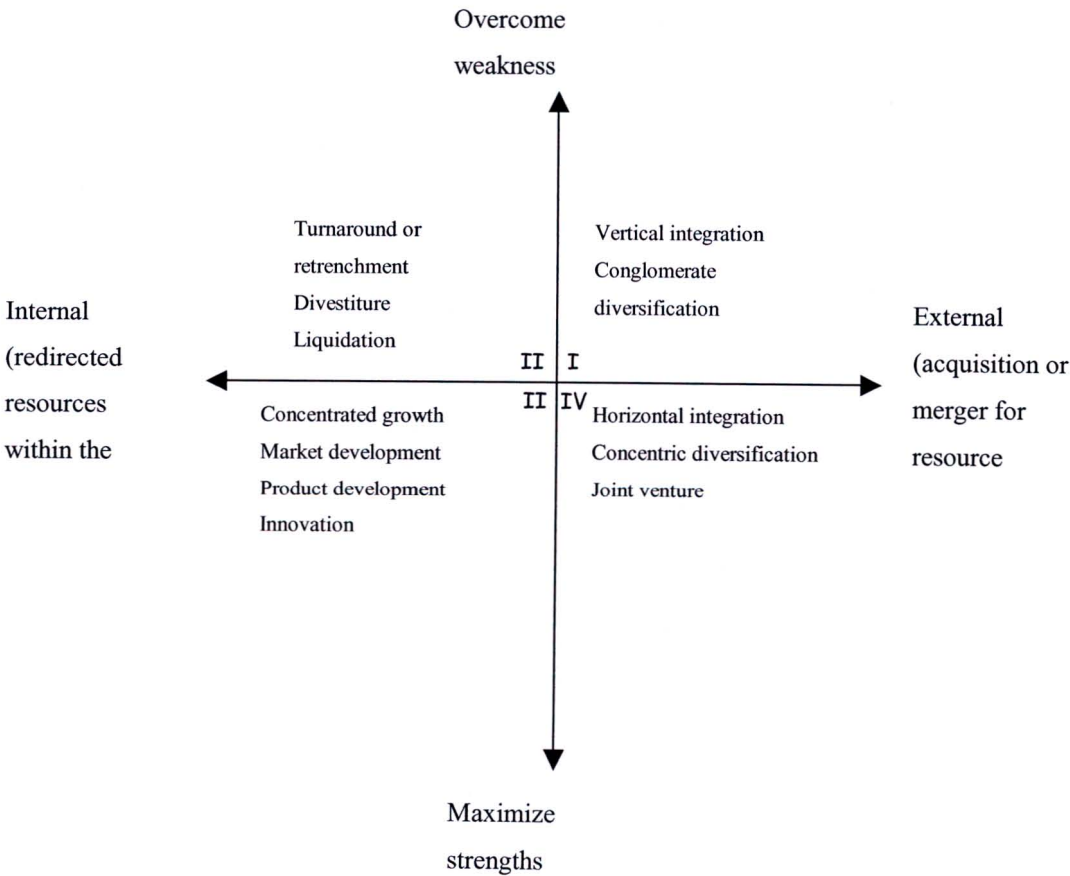
detailed options. In practice, the process is likely to combine top-down and bottom-up thinking.

• **GRAND STRATEGY SELECTION**

This matrix below is a valuable guide to assist in the selection of a ‘promising’ grand strategy and is shown as figure 2.26. The basic idea underlying the matrix is that two variables are of central concern in the selection process (Pearce & Robinson 2000:315):

- i). The principle purpose of the grand strategy; and
- ii). The choice of an internal or external emphasis for growth or profitability.

Figure 2.26: GRAND STRATEGY SELECTION MATRIX



Source: Pearce & Robinson (2000)

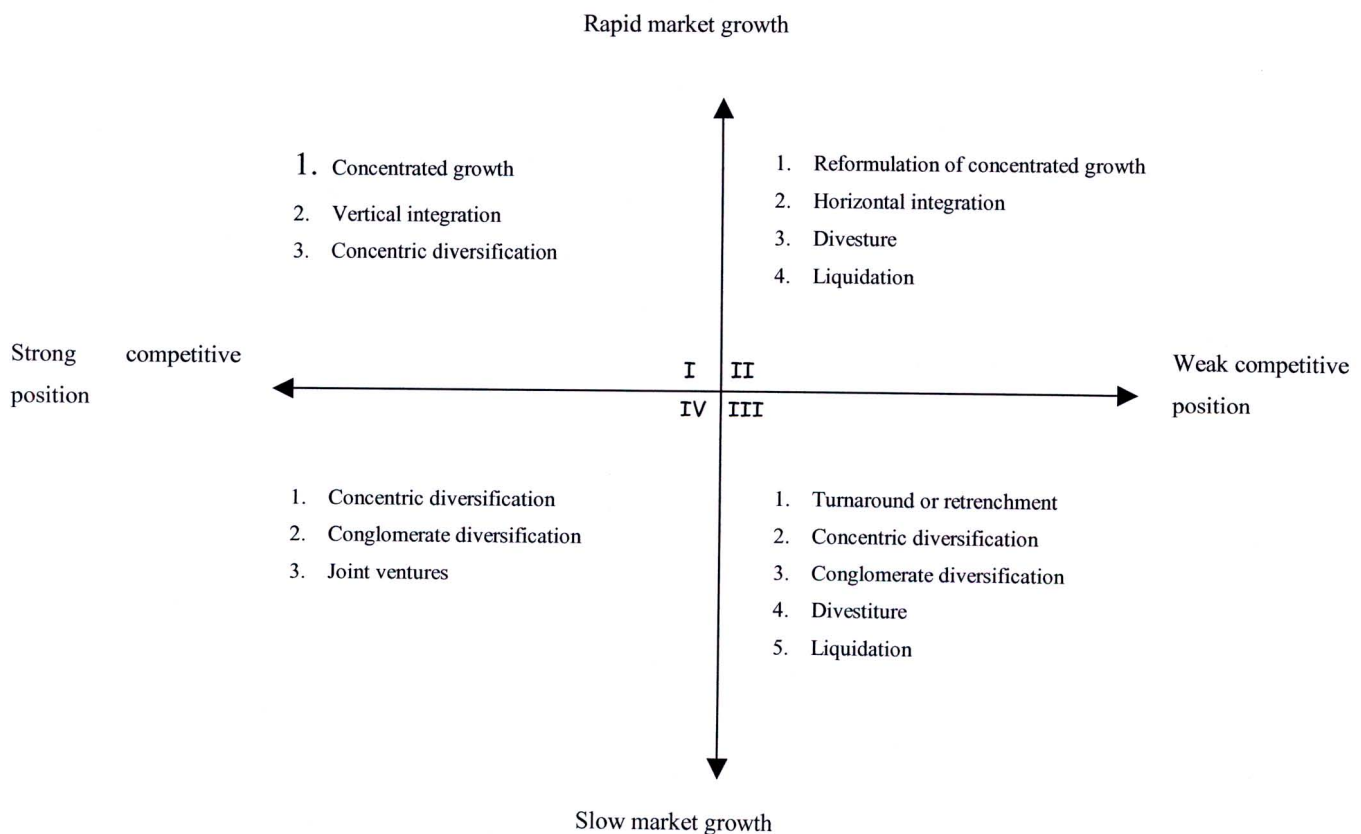
• **MODEL OF GRAND STRATEGY CLUSTERS**

The second guide to selecting a promising grand strategy is shown in figure 2.27. The matrix is based on the idea that the situation of a business is defined in terms of the growth rate of the general market and the firm’s competitive position in that market. When these factors are considered simultaneously, a business can be broadly categorized in one of four quadrants, which can be stated as (Pearce & Robinson 2000:317):

- I. Strong competitive position in a rapidly growing market;
- II. Weak position in a rapidly growing market;
- III. Weak position in a slow growth market; or
- IV. Strong position in a slow-growth market.

Each of these quadrants suggests a set of promising possibilities for the selection of a grand strategy.

Figure 2.27: MODEL OF GRAND STRATEGY CLUSTERS



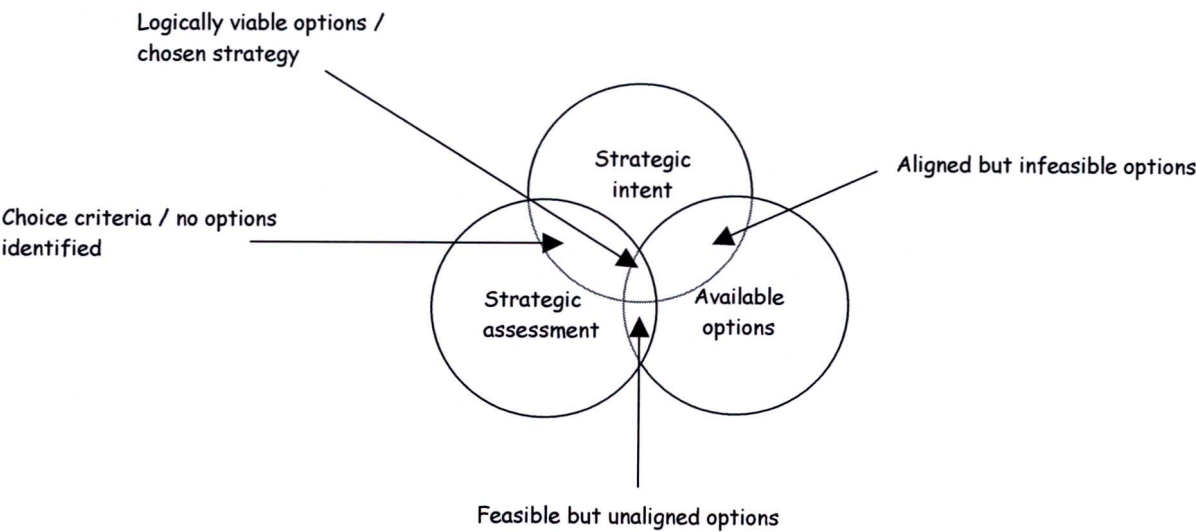
Source: Pearce & Robinson (2000)

The model of grand strategy selection or the model of grand strategy clusters matrices is useful tools to help organizations evaluate and narrow their choices among alternative grand strategies. It assists in the challenge of how to chart the future and continue to build shareholder value.

2.8.5 GENERAL TESTS OF STRATEGIC OPTIONS

Each strategic option has then to pass two tests based on the logic of figure 2.16 and figure 2.28.

Figure 2.28: CHOOSING A STRATEGY FROM AMONG STRATEGIC OPTIONS



Source: Hanson, D & P Dowling, (2001)

2.8.6 STRATEGY CONTENT EVALUATION

The content of strategy options needs to be evaluated in terms of their possible contribution to the organization. It is important the evaluative process uses criteria that are relevant to the organization.

According to Lynch (2000: 617), for general purposes six main criteria can be used in evaluating strategy options. G.S Day in his article, *“Strategic Market Planning”*,

published in 1987 initially developed the 'criteria concept' and is used by Lynch (2000: 657):

- i). Consistency with the purpose of the organization is a prime test for evaluating and selecting strategies;
- ii). Suitability of the strategy for the environment within which the organization operates is clearly important;
- iii). Validity of the projections and data used in developing the option must be tested;
- iv). Feasibility will depend on two factors: constraints internal to the organization such as technical skills and finance; constraints external to the organization;
- v). Business risk also needs to be assessed because it may hold unacceptable to the organization;
- vi). Attractiveness to stakeholders such as shareholders and employees: some options may be more attractive to some stakeholders than others

Any strategic option has to pass all tests to be viable. If more than one strategic option passes these tests, they may have to be compared with each other to choose the 'best'. The judgment has to take into account both tangible characteristics such as risk and return and less tangible matters such as match to values and culture. In practice, the number of strategic options is rarely large. The tests, though important, cannot be completely objective.

2.8.7 WHO SHOULD BE INVOLVED WITH THE CHOICE?

Strategic choice is as much a political as a logical process. In theory it is much easier to describe the logic than in reality. Each context will have its own pattern of politics which will be important in determining both how and what strategic decisions are made. Questions that may help to reveal the political reality include:

- Who stands to gain or lose from a particular strategic choice?
- What existing coalitions exist and how will these be affected?

- Who may be seen to have originated or supported particular choices or arguments?

Ultimately it is likely that a strategic choice will need approval by the Board but this may well be the formal confirmation of a decision that has been made before the actual meeting. Formal approval is necessary but no strategy will be effective unless it also has the active support of a far wider range of people who both understand the proposals and are prepared to work to make the necessary changes happen. One way of achieving this support is to involve people in the process of making the decision.

Both the logic and politics of the choice may be heavily dependent on the context. In some cases, strategy is driven solely by competitive advantage. In other cases, there may be a strategic intent or vision that determines long-term direction so that the strategic choice is about means rather than direction.

Strategic choice is the third logical element of the strategy process and has a central role. The process of choice can only be described as deciding between different options but this makes the process neater and tidier than it really is.

There are likely to be possible options about product and services and about market segments defined by both customer need and geography. There will also be options on what resources and capabilities are needed and how to build these – implementation options. Indicators of what is possible and what is required may well follow from the results of a strategic assessment. The various options are likely to be inter-related so it is necessary to identify a small number of strategic options made up of appropriately related options. Strategic choice involves comparing strategic options both logically and politically. Strategic options have to be aligned, acceptable and feasible. If there is more than one strategic option that meets these tests, they will need to be compared. It is simplistic to treat strategic choice just as the logical comparison of strategic options. The process of decision is also political. It is important that those who will be crucial to implementing the strategy support the choice made.

2.9 THE IMPLEMENTATION PROCESS

When the organization faces major strategic problems or the opportunities of new technologies, it will have to draw up plans to pursue its strategies. Essentially, these need to address the following questions:

- What activities need to be undertaken in order to achieve the agreed objectives?
- What is the timescale for the implementation of these plans?
- How will progress be monitored and controlled?

To turn general strategies into specific implementation plans involves four basic elements (Day, 1984):

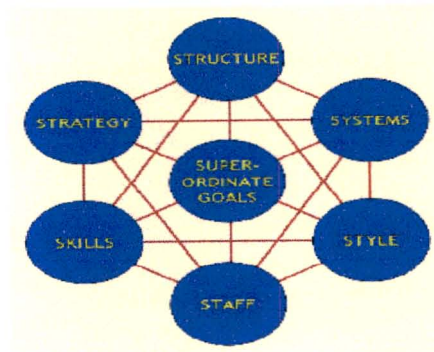
- Identification of general strategic objectives
- Formulation of specific plans
- Resource allocation and budgeting
- Monitoring and control procedures

A powerful determinant of successful strategy implementation and execution is how well management leads the process. Different business practices, competitive circumstances, work environments, cultures, policies, compensation incentives, mixes of personalities, and organizational histories all require a customized approach to strategy implementation – one based on individual company situations and circumstances, the strategy-implementer's best judgment and the implementer's ability to use particular change techniques adeptly (Thompson & Strickland, 2001:347).

One-way of bringing the various strategy elements together is the Seven S Framework. The framework was developed by Peters and Waterman of McKinsey & Company in 1982. Each element is equally important and all need to be considered in the development of corporate strategy: strategy, structure, systems, style, staff, skills, super-ordinate goals as shown in Figure 2.29. However, the model does little to

explain the logic and the methodology of developing links between the elements.
(Lynch 2000: 974)

Figure 2.29: SEVEN S FRAMEWORK



Source: Dess & Miller (1993).

2.9.1 LEADING THE STRATEGY IMPLEMENTATION AND EXECUTION PROCESS

According to Campbell and Goold (Johnson & Scholes) there were two dimensions that could describe a continuum of ways in which the corporate headquarters could influence the business units, which are:

- The extent of the planning influence exerted by the corporate headquarters, the strategic planning processes of the organization that defined the extent to which the strategy was centralized.
- The type of control influence exerted by the corporate headquarters on the businesses within the group in order to meet plans, ranging from tight short-term financial controls through to more broadly defined and longer-term strategic controls.

Using these dimensions they identified three management styles, or stereotypes, which companies tend to follow which range along the continuum from financial control, through strategic control to strategic planning as illustrated in Figure 2.30.

Figure 2.30: MANAGEMENT STYLES

High	Strategic Planning		
Planning Influence		Strategic Control	
			Financial Control
Low	Flexible	Tight Strategic	Tight Financial
	Control Influence		

Source: Johnson & Scholes (2002) Exploring Corporate Strategy

The portfolio approach or financial control can be successful, but other situations call for more interdependencies between business units, and hence a greater involvement for the corporate centre in co-ordinating activities (the strategic planning and strategic control styles). The key, argue Goold and Campbell is that managers need to understand the benefits and drawbacks of each style, its strengths and weaknesses, and being able to match the needs of the business to the right management style. Some of these key issues are summarized below in the next table.

Figure 2.31: CENTRE – DIVISION RELATIONSHIPS

Approach	Key features	Advantages	Dangers
Strategic planning	'Masterplanner' Top-down Highly prescribed Detailed controls	Co-ordination	Centre out of touch Divisions tactical Public sector pre-1990s
Financial control	'Shareholder/banker' Financial targets Control of investment Bottom-up	Responsiveness	Lose direction Centre does not add value
Strategic control	'Strategic shaper' Strategic and financial targets Bottom-up Less detailed controls	Centre/divisions complementary Ability to co-ordinate Motivation	Too much bargaining Culture change needed New bureaucracies Public sector post-1990

2.9.2 COMBINING APPROACHES MANAGEMENT STYLES

The different approaches to synergy and management styles have been described.

One could argue that these approaches and styles are merely the flip sides of the same coin. One-side shows what the corporation intends to achieve in terms of the underlying logic of value creation, whilst the other side shows how it will achieve it in terms of management controls and structures.

In more general terms, Figure 2.32 indicates each of the approaches to synergy can be closely linked with one of the management styles identified by Goold and Campbell. Each approach to synergy suggests a particular style of management in terms of the way in which strategy is developed and controlled.

Figure 2.32: COMPARING APPROACHES TO SYNERGY AND MANAGEMENT STYLES

Approach	Management Style	Comments
Portfolio Approach financial synergies by balancing portfolio	Financial Control	SBU's manage strategy against tight financial targets set by centre. Centre aims to provide a better investment performance. Portfolios can be very diverse.
Linkages Approach linkages synergies through transferring skills & sharing activities	Strategic Control	SBU's largely develop strategy but centre aims to co-ordinate plans and set fairly tight financial & strategic targets. Attempt to create links between businesses to create competitive advantage. Group likely to consist of 3 or 4 core businesses.
Core Competences Approach core competence synergies across business units	Strategic Planning	Centre drives strategy around a theme (core competences). Businesses concentrate on implementation with centre strongly co-ordinating actions and creating linkages between units. Emphasis is on a small range of core products and competences.

The table shows how the devolved management style of financial control is best suited to a corporation seeking financial synergy through a portfolio approach. In contrast, the top-down “master planner” style of strategic planning will assist in the

development of synergies through core competences that cross-traditional business unit boundaries. The “strategic shaper” style of strategic control encourages co-operation between business units, and between the centre and the business units, which is consistent with the creation of linkages and the recognition that competition still rests at an SBU level.

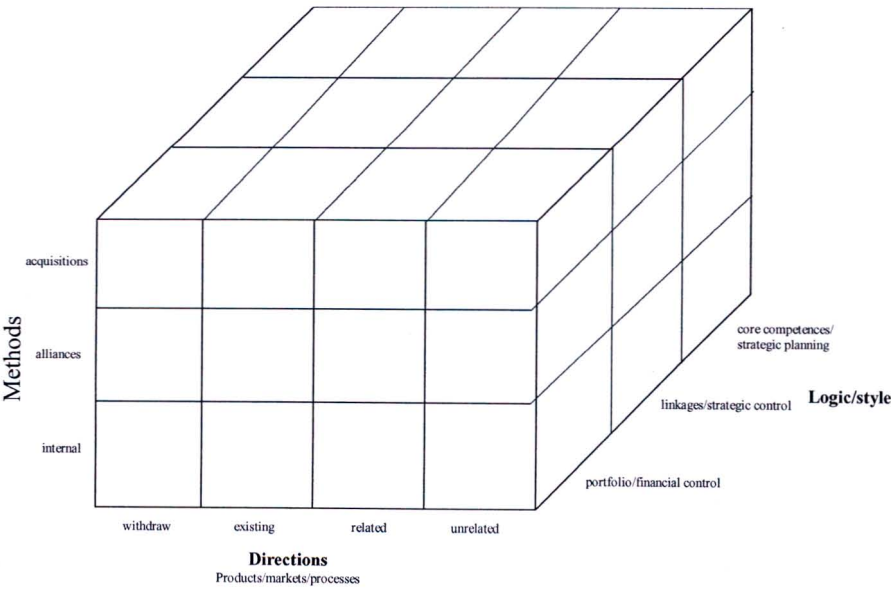
2.9.3 AN INTEGRATIVE MODEL OF CORPORATE STRATEGY

The view taken by corporate managers on the most appropriate management style is underpinned by an associated approach to synergy. In effect, managers have an underlying logic of how their corporate world operates, in terms of the way to both create and manage synergy.

Not only can it be argued that these approaches and styles are linked, but it is also clear from the preceding discussion that future corporate developments and the scope of the organization are likely be influenced by this underlying logic. In effect, the underlying logic will govern their reasons for developing in particular directions, using particular methods, and the overall extent of the corporation.

The three key **dimensions** of corporate strategy can be illustrated, as in Figure 2.33.

Figure 2.33: AN INTEGRATIVE MODEL OF CORPORATE STRATEGY



Source: A Campbell & M Goold (1998)

The diagram can be used to see the relationships between the three key dimensions of corporate strategy: direction, method and managerial logic (style/approach to synergy). In particular, we can see how the managerial logic may affect the choices and reasons behind strategic developments (directions/methods).

For example, many Portfolio/Financial Control companies are likely to develop into unrelated products/markets/processes, usually by acquisition, with the decision likely to rest on whether they believe that they can turn the business into a star.

In contrast, a Linkages/Strategic Control company is likely to develop into the same or related products/markets/processes, with questions about acquisition targets related to the opportunities to share activities and skills with other parts of the organization.

Similarly, the Core Competences/Strategic Planning organization will favour moves into areas involving the same business processes, where there are opportunities to build upon or exploit core competences. Further, in contrast to the other styles of company, the Core Competences/Strategic Planning organization may well favour alliances over acquisitions.

In conclusion, the decisions managers take about the development of their organizations may well be governed largely by the views they hold about the logic of synergy and the style by which the corporation is managed.

2.9.4 IMPORTANCE OF CORPORATE PARENTING

Johnson and Scholes explore a further feature of the work of Michael Goold and Andrew Campbell - corporate parenting. The argument is that the parent company should not only add value to a new business unit, but also add more value than any other potential parent - they call this parenting advantage.

In defining the concept of parenting advantage, Goold, Campbell and Alexander identify the characteristics that lead to value creation:

- There must be a parenting opportunity – the parent (corporate centre) must have some opportunity to help businesses in its portfolio to improve performance.
- The parent must possess some parenting characteristics – special capabilities or resources that will enable it to improve performance.
- The parent must have a “feel for the business” – sufficient understanding of critical success factors to ensure it does not influence the business unit in inappropriate ways.
- The best parents also have “distinctive parenting characteristics” – special skills and resources that fit particularly well with the other characteristics and their portfolio of businesses.

Together, these characteristics will allow the parent to meet the “better off test” that is at the heart of the parenting advantage.

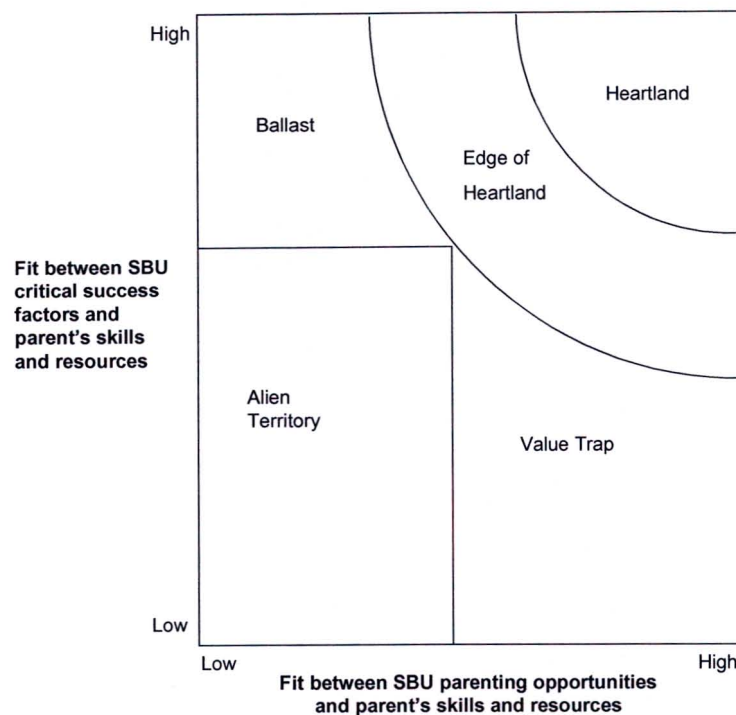
Using these principles the parenting matrix can be defined that allows the different business units to be categorized according to their relationship with the parent and benefits that the parent can provide. There are five classifications into which the portfolio of existing (or potential new) business units can be placed:

- **Heartland** – businesses for which parenting advantage exists and is likely to be at the heart of any future strategy.
- **Edge of Heartland** – businesses where the parent may be able to develop an advantage so are also likely to be part of a future strategy.
- **Ballast** – businesses where there is a fit between their critical success factors and the parent’s skills and resources but value creation logic is weak. The business unit requires little help from the parent so can be sold if a better parent exists or moved to heartland if new value creation logic can be developed for them.
- **Alien Territory** – businesses that do not fit on either dimension and need to be sold as soon as convenient.
- **Value Trap** – businesses in which there is value creation logic, the business unit needs help, but the parent’s strengths and weaknesses do not fit well with

the critical success factors. These businesses need to be sold unless the parent is able to change its skills and resources to reduce the misfit.

All these categories are highlighted in the parenting matrix illustrated in Figure 2.34.

Figure 2.34: THE PARENTING MATRIX



Source: A Campbell & M Goold, “Corporate Level Strategy” in V Ambrosini et al., Exploring Techniques of Analysis and Evaluation in Strategic Management, Prentice Hall, 1998

The implications of this parenting approach are that decisions on which business units to keep within the group depend not only on what the business units contributes to the group, but also on what the corporate headquarters can contribute to the business units. Even a “good” SBU may be divested if it is thought a better parent can be found for it.

Finally, it is worth exploring the link between the parenting matrix and the integrative model of corporate strategy outlined in the previous section. The underlying logic

(approach to synergy and management style) adopted by the parent will affect its skills and resources, which are the key determinants of the particular parenting opportunities and parenting characteristics.

The implication of this point is that the choice of underlying logic affects the positioning of business units on the parenting matrix. What might be a heartland business if the centre adopts the portfolio/financial control logic, may well move to alien territory (or any of the other categories) if the centre adopts either the linkages/strategic control logic or the core competences/strategic planning logic.

2.9.5 STRATEGY AND STRUCTURE

Matching structure to strategy centers around making strategy-critical activities the main organizational building blocks, finding effective ways to bridge organizational lines of authority and co-ordinate the related efforts of separate internal units and individuals and effectively networking the efforts of internal units and external collaborative partners (Thompson & Strickland 2001: 375).

2.9.6 STRATEGY AND SUPPPORT SYSTEMS

Company strategies can't be implemented or executed well without a number of support systems to carry on business operations. Accordingly well-conceived, state of the art support systems not only facilitate better strategy execution but can also strengthen organizational capabilities enough to provide a competitive edge over rivals. Further strategy-supportive motivational practices and reward systems are powerful management tools for gaining employee buy-in and commitment (Thompson & Strickland 2001: 405).

2.9.7 BUDGETS

Finally any change in strategy nearly always calls for budget reallocations. Reworking the budget to make it more strategy-supportive is a crucial part of the implementation process because every organization needs to have the people, facilities and other

resources to carry out its part of the strategic plan (Thompson & Strickland (2001: 405).

2.9.8 MEASURING THE SUCCESS OF IMPLEMENTATION

Finally the Balanced Scorecard approach which was developed by Kaplan and Norton (1996) as a method of translating abstract strategy into specific areas of company action to help strategy work. The Balanced Scorecard combines quantitative and qualitative measures of the selected strategy. It acknowledges the different expectations of the various stakeholders and it attempts to link scorecard performance measures to the chosen strategy.

There are four key principles behind the scorecard (Thompson & Strickland 2000:485):

- Translating the vision through clarifying and gaining consensus;
- Communicating and linking by setting goals and establishing rewards for success;
- Business planning to align objectives, allocate resources and establish milestones;
- Feedback and learning to review the subsequent performance against the plan.

The four strategy perspectives and that appear on every scorecard are financial, customer, internal and future. The main benefits lie in the focus of the Scorecard on turning strategy into implementation and the development of objectives that go beyond simple financial measures.

2.9.9 CRITICISMS OF THE BALANCED SCORECARD APPROACH

Mooraj, Oyon & Hostettler (1999) criticize the Balanced Scorecard approach as failing to:

- Highlight employee and supplier's contributions (that it doesn't consider the extended value chain, which is an essential element of today's networked organizations);

- Identify the role of the community in defining the environment within which the company works;
- Identify performance measurement as a two-way process (that it focuses primarily on top-down performance measurement).

Accordingly the entire balanced scorecard implementation process relies on both formal and informal processes, whether this be in relation to the strategic approach of the organization and its corresponding structure, to the cultural aspects of the organization or indeed to the management control systems currently in place. In all of these areas, there are written and unwritten rules and these must be considered in order for any new process to be implemented successfully (Thompson & Strickland, 2000: 496).

2.10 CONCLUSION

Businesses vary in the processes they use to formulate and direct their strategic management activities. Despite differences in detail and the degree of formalization the basic components of the models used to analyze strategic management operations are very similar. Because of the similarity among the general models of the strategic management process, it is possible to develop an eclectic model representative of the foremost thought in the strategic management area.

The strategic management model presented in this chapter serves as the structure for understanding and integrating all the major phases of strategy formulation and implementation. The chapter gave an account of the applicable phases. In conclusion the chapter stressed that the strategic management process centres on the belief that a firm's mission can best be achieved through a systematic and comprehensive assessment of both its internal capabilities and its external environment. Subsequent evaluation of the firm's opportunities leads, in turn, to the choice of long-term objectives and grand strategies and ultimately to operating strategies, which must be implemented, monitored and controlled. Chapter 3 presents the case study of this project.

CHAPTER 3 – ANALYSIS OF CASE STUDY EVIDENCE

3.1 INTRODUCTION

This chapter evaluates the data gathered in the previous stage of study. It has been suggested that: *“There are no formal, universal rules to follow in analyzing, interpreting and evaluating qualitative data. Analysis is the process of bringing order to the data, organizing what is there into patterns, categories and basic descriptive units. Interpretation involves attaching meaning and significance to the analysis, explaining descriptive patterns and looking for relationships and linkages among descriptive dimensions”* (Paton, 1980:268). Accordingly for the research project the process of analysis was continuous, iterative, intensive and comparative in nature and it is explored more fully in the ensuing chapter. This chapter explores the macro-and micro-environment affecting SARS.

3.2 BACKGROUND OF CASE STUDY

There is a search for solutions to the problems posed by transnational threats to international and national security. Individual governments have upgraded their law enforcement and national security postures and considered dramatic changes to the status quo. The United States, perhaps the most obvious example to draw from the aftermath of the terrorist attacks of September 11, 2001, has made massive infusions of taxpayer dollars into law enforcement and defense. Global, regional and economic groupings of states like the European Union, the G7, the Asia-Pacific Economic Forum and SACU have worked to develop better collective approaches to common challenges. Intergovernmental organizations seek to harmonize the efforts of member states to make the international system more secure in the face of threats.

But, in most cases, the process of getting a government to act on a policy matter, even in the face of crisis, can be protracted. Further, there are fiscal realities that limit what any one nation can do alone. Multilateral efforts in key organizations indicate growing international recognition of the collective danger posed by transnational security threats. Governments must work through international organizations to harmonize standards and constrict the ungoverned space that criminals and terrorists exploit.

Finally, the private sector relies on the safe, secure and efficient movement of goods and people across borders and that possesses information management skill that governments might usefully employ, need to be incorporated into evolved border control regimes. International standardization can build the trust of legitimate international businesses that seek predictability and by extension, efficiency in border control.

The port debate continues, however recognition of the systematic challenges inherent in the global movement of shipping containers emerged. From the perspective of the United States or any individual nation, the inspection of the shipping containers after they have arrived at the port of entry might be of little value if the transnational threat secreted in one of them is a terrorist weapon of mass destruction. Any effort to improve the secure movement of shipping containers from one nation to another requires more accurate information about where and how the container was loaded and secured at the point of origin as well as better knowledge of what, if anything, happened to the container while in transit. Any one nation's effort to reach that level of transparency necessarily requires engagement on two tracks. First, multilateral agreements can advance the harmonization of standards for container security. Second, engagement with the private sector is needed to make what is an otherwise completely unmanageable problem of separating good from bad a less daunting proposition. The first track can be slowed by the progress of multilateral consensus building, but is ultimately necessary when the challenge presented has a transnational character. The second track can move rapidly, but the private actors, always concerned with competitiveness, will be hesitant until they have the sense that the standards they agree will be applied equitably (USDOT, 2002).

More importantly, existing or emerging initiatives in two related intergovernmental organizations, the International Maritime Organization (IMO) and the World Customs Organization (WCO), suggest possible roadmaps for international harmonization of effort with respect to container security. Given the alternative of bringing global commerce to a halt while draconian physical inspections are conducted at border control check points is both undesirable and economically devastating, governments must work together and with the private sector to enhance shipping container security.

3.3 SARS MISSION AND VISION

The mandate of the South African Revenue Service Act No.34 of 1997 gives the entity the mandate to perform the following tasks:

- Collect all revenues that are due;
- Ensure maximum compliance with the legislation;
- Provide a customs service that will maximize revenue collection, protect our borders as well as facilitate trade.

Its vision is *“To provide an excellent service in a transparent environment ensuring optimum collection of revenues.”*

The provisions of the South African Revenue Service further include that:

- That SARS is established as an organ of state within the public administration, but as an institution outside the public service;
- SARS’s objective is the efficient and effective collection of revenue;
- To achieve its objective SARS must secure the efficient and effective and widest possible, enforcement of the national legislation listed in schedule 1 which includes the Customs and Excise Act and in item 18, “any regulation, proclamation, government notice or rule issued in terms of the above-mentioned legislation or any agreement entered into in terms of this legislation or the Constitution.”
- SARS must perform its function in the most cost-efficient and effective manner and in accordance with the values and principles mentioned in section 195 of the Constitution.
- SARS performs its function under the policy control of the Minister and subject to any directives and guidelines on policy matters issued by the Minister.

SARS is an organization that achieves its mission through:

- An optimization of revenue yield;
- Compliance with the law;
- High standard of a client service that is equitable, transparent and related to the needs of clients;
- Cost efficiency;
- Public protection in accordance with Government policy;
- Provision of reliable statistics;
- Advise to Government on tax matters.

In order to perform or execute SARS's mandate the following strategic outcomes have been identified by SARS:

- Implementing government's new tax policies and exceeding the revenue collection targets;
- Improved service delivery;
- Fostering tax compliance and morality;
- Protecting the South African economy;
- Facilitating trade;
- Promoting Southern African integration and co-operation; and
- Ensuring organization transformation.

"Customs administrations play a vital role in the growth of international trade and the development of the global marketplace. The efficiency and effectiveness of Customs procedures can significantly influence the economic competitiveness of nations" (WCO, 2002).

In a highly competitive world environment, international trade and investment will flow toward efficient, supportive and facilitative locations. At the same time it will rapidly ebb away from locations, which are perceived by business as bureaucratic and synonymous with high costs.

Customs systems and processes must not be allowed to serve or be perceived as a barrier to international trade and growth. Modern production and delivery systems, linked with the dramatic potential of new forms of electronic commerce and technology, make swift and predictable Customs clearance an important prerequisite for national prosperity (WCO).

3.4 LEADERSHIP PORTFOLIO

Strategic leadership is simple, one determines where to invest, develop a competitive strategic advantage and get the right leader who would then select the right team. Accordingly the leader and the life-cycle phase must be matched (Rothchild:79).

Over the past few years SARS has gone through tremendous transformation initiatives that required the services of a 'risk-taker'. However as the transformation process levels off SARS may need the services of a 'surgeon' that can re-focus SARS and take it forward.

3.4.1 LEADERSHIP, COMMITMENT AND SPONSORSHIP

Leadership and sponsorship are the most-critical factors for transformation. Frank Lanza, of the California Franchise Tax Board, contends that strong leadership throughout the organization is necessary to modernize and transform revenue departments in the next decade (CFTB, 2000). Leaders must develop a vision for the organization, understand technology, customs policy and administration and affect change within the organization. An integrated strategy, that spells out the key organization objectives and is supported by a detailed business case, provides the foundation for transformation.

Leaders should not underestimate the cultural shift required to address the emerging trends. They must actively garner the support of key stakeholders by developing change-readiness plans and keep stakeholders apprised of progress by adhering to a communication program.

Leaders must place a strategic focus on the acquisition and re-use of information by investing in tools that integrate processes for managing, analyzing and using data. Citizens will also play a leadership role in modernizing customs departments. As public expectations and technological pervasiveness increases, government's leaders should integrate those expectations into everyday operations and the future vision. The most-effective government leaders should stay abreast of technological and business process trends to accommodate the evolving needs of their constituents.

3.5 ANALYSIS OF THE ENVIRONMENT

To examine the remote external environment of SARS, the PEST model has been utilized:

3.5.1 REMOTE ENVIRONMENT

Organizations like SARS attempt to understand the external environment by acquiring information about other customs administrations, customers and other stakeholders. In particular, organizations seek to gain information to build their own base of knowledge and capabilities (Zahra, Nielsen & Bogner, 1999). Organizations may attempt to imitate the capabilities of able competitors / other customs administrations or even successful organizations in other industries, or they may build new knowledge and capabilities to develop a competitive advantage. On the basis of this new information, knowledge and capabilities, organizations may take actions to buffer environmental effects on them or to build relationships with stakeholders in their environment (Hitt, Ricart, Costa & Nixon, 1998).

- **THE ECONOMIC SEGMENT**

The health of a nation's economy affects the performance of individual organizations and industries. Because of this, organizations study the economic environment to identify changes, trends and their strategic implications. The economic environment refers to the nature and direction of the economy in which a firm competes or may compete (Fahey & Narayanan 1986:105).

Trade performance has to be evaluated in a changing landscape. Since 1994, South Africa's trade performance has changed dramatically. South Africa's export earnings have been growing by an average of 15 % per year since 1997 to reach more than R250-billion during 2001. This impressive performance must be seen against an historical background of inward industrialization, supported by complex and relatively high import tariffs and other non-tariff barriers. It is only since the democratization of the country in 1994 and its re-acceptance into the global trading community that government could focus its efforts towards restructuring the country's protective system, securing preferential market access for its products and diversifying South Africa's export base (Havenga, 2002:37).

Given a short period of only eight years after the country's first democratic election, to what extent has South Africa achieved these goals? Figure 3.1 aptly exemplifies this.

Figure 3.1: SA'S MOST IMPORTANT EXPORT DESTINATIONS

RANK	COUNTRY	2001	1997-2001
		Rbn	% Growth
1.	USA (2)	22.5	19.9
2.	UK (1)	22.1	13.0
3.	GERMANY (4)	17.1	25.6
4.	JAPAN (3)	13.3	11.2
5.	NETHERLANDS (6)	9.6	24.4
6.	BELGIUM (8)	6.7	13.8
7.	ITALY (10)	6.6	20.3
8.	MOZAMBIQUE (12)	5.7	19.7
9.	ZIMBABWE (5)	5.4	-0.1
10.	ZAMBIA (13)	4.9	25.3
11.	SPAIN (15)	4.7	21.7
12.	FRANCE (16)	4.6	23.6
13.	ISRAEL (17)	4.3	21.5
14.	SOUTH KOREA (9)	3.9	11.2
15.	TAIWAN (7)	3.8	4.7

Source: FNB CORPORATE TRADE SERVICES – www.fnb.co.za

Other interesting facts are evident after analyzing South Africa's export performance over the recent past include (Havenga, 2002:38):

- The USA is now South Africa's major export destination (ranked second in 1997), a direct result of the implementation of AGOA;
- Japan has moved back one position, given the turmoil in that country's domestic economy;
- Mozambique has displaced Zimbabwe as South Africa's top export destination on the African continent. Trade with Mozambique has entered a new growth path, benefiting from the more than 13 mega projects underway between the two countries;
- Government's decision to sever its ties Taiwan in favour of China has been vindicated. Exports to China have grown at more than 40% between 1997 and 2001 to R3.8-billion last year, while exports to Taiwan have stagnated to a mere 3.8% per annum growth during the same period;
- Exports to Nigeria and India have increased with 40% and 25% per annum between 1997 and 2001 to reach R1.7-billion and R3.3-billion respectively. Nigeria undoubtedly has the potential to become South Africa's largest export destination in Africa.

In conclusion, it is clear from the above analysis that Government is delivering on its stated objectives of creating an environment where South African industry can compete in new and existing markets with globally competitive products and services.

• **TRADE RELATIONS**

The centerpiece of South Africa's foreign economic policy is the Southern African Development community (SADC), comprising Angola, Botswana, the Democratic Republic of Congo (DRC), Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

Within SADC, a smaller group of countries namely, South Africa, Botswana, Lesotho, Namibia and Swaziland operate the Southern African Customs Union

(SACU), which is a single trade and tariff regime with no internal barriers and with customs revenue shared according to an agreed formulae.

South Africa's growing trade surplus with the SADC partners has helped to offset trade deficits with other regions, but structural trade imbalances are unsustainable in the longer term. Hence, the Department of Trade and Industry's ('DTI') involvement in a strategy towards creating a dynamic regional economy capable of competing in the global economy. Elements of this strategy include (SATNC, 2002:71):

- Implementing a SADC Free Trade Agreement to provide rapid and significant market access to regional exporters;
- Linking regional trade development and industrial restructuring to reflect comparative advantages across the region;
- Promoting coordinated infrastructure and resource-based industrial development through Spatial Development Initiatives;
- Encouraging South African firms to invest regionally through the relaxation of foreign exchange controls on capital destined for the region; and
- Strengthening customs control and eliminating non-tariff barriers.

The excellent progress made in adopting the SADC Free Trade Agreement has included implementation of a protocol providing for a SADC Free Trade Area by 2008. Outstanding issues, such as the need to improve market access, are receiving urgent attention and the completed negotiations are expected to substantially enhance the SADC's capacity to participate in regional and international trade (SATNC, 2002:71).

With the SACU, difficulties surrounding new revenue-sharing formulae have been resolved and good progress has been made in establishing a new, inclusive and democratic decision-making structure.

Deepening of economic relations with key countries of the so-called North is imperative to lock in supplies of technology, capital and finance. The European Union is South Africa's leading trading partner, accounting for more than 40% of trade

volume. Furthermore, much of the foreign direct investment into South Africa comes from Europe. All of which makes the EU-SA Trade Agreement a vital element in building South Africa's global economic policy.

The agreement has secured increased access for South African products to the huge EU market, while enhancing predictability and providing leverage for increased inward flows of investment and technology. South Africa grants duty-free access to 86% of EU imports over a period of 12 years, while the EU liberalizes 95 % of South Africa's imports over a 10-year period.

Economists predict that the impact of the agreement on trade and investment flows between South Africa and the 15 EU member states will contribute significantly towards the restructuring of the South African economy and its long-term growth potential. South African export numbers are already up (SATNC, 2002:71).

Within Europe, South Africa's most important strategic partnerships are with the United Kingdom, Germany, France and Sweden respectively. Russia is potentially a strategic country, whereas the Nordic countries, Italy and Spain are priority countries. Closer attention is now also being paid to those Eastern European nations that are likely to join the EU in its next wave of enlargement.

The United States is another of South Africa's key trade partners, and its position as the world's superpower demands comprehensive engagement on many levels.

South Africa is a beneficiary of the US's Generalized System of Preferences (GSP), which grants duty-free treatment to more than 4 650 products. It is also a beneficiary of the recently of the recently promulgated Africa Growth and Opportunity Act (AGOA) which provides greater transparency and certainty about GSP benefits for traders and investors. AGOA permits the duty-free entry into the US of 1897 South African products until 2008. South Africa is visibly benefiting from the agreement, particularly in the field of textiles.

The South Africa-US Bi-national Commission established under President Clinton's administration did much to strengthen bilateral trade ties. Although the formal

commission has fallen away under the new US Administration, its two key structures involving the DTI – the Trade and Investment Committee and the Trade and Investment Council – have remained substantially the same.

Canada is South Africa's second largest trade partner in North America, with bilateral trade increasing substantially since the lifting of sanctions in 1993. South African companies are eligible for Canada's General Preferential Tariff (GPT), which has rates varying from duty-free to reductions in the most-favoured-nation scale. South African also has a Memorandum of Understanding with Canada regarding the export of clothing and textiles. Export opportunities to Canada have been formally identified in the fields of capital equipment (mining and machinery supplies), plastics, clothing and textiles and agro-processing (SATNC, 2002:72)

In Asia, Japan is South Africa's largest trading partner and is the fourth largest overall – as well as being a source of substantial investment. The Partnership Forum with Japan is designed to strengthen bilateral ties.

Other important in the region include Australia, North Korea, Singapore, Thailand and Taiwan, with India emerging as South Africa's key strategic partner among developing nations in the region. Strong ties have been built with Malaysia in recent years, and it has been the second largest investor in South Africa, on a cumulative basis since 1994.

Economic and trade relations with china have grown rapidly since the establishment of formal diplomatic ties, with a 40% leap in bilateral trade in 2000. Several South African companies, notably South African Breweries, have been quick to set up manufacturing capacity within China. China has committed R9-billion for debt relief to African countries.

South Africa is a member of the Indian Ocean Rim Association for Regional co-Operation (IOR-ARC), a project based grouping of 19 countries washed by the Indian Ocean and these member countries account for around 10% of world trade. Currently, South Africa is involved in three main projects (SATNC, 2002:72):

- The development, upgrading and management of sea ports, maritime transport, insurance and reinsurance;
- A study on cross-border financial services; and
- Improving technology co-operation.

In Latin America, South Africa has signed a Framework Agreement with the Mercosur trade grouping (Argentina, Brazil, Paraguay, Uruguay, Bolivia and Chile) which commits both parties to negotiate and conclude a free trade agreement. As a first step, the parties have agreed to exchange preferences in certain sectors.

Both South Africa and Brazil regard each other as strategic partners. They have established a joint commission and co-operate in multinational forums such as the WTO. Chile is another important partner, with a number of South African mining companies heavily involved there.

South Africa regards its membership of the WTO as very important because of the enhanced security and certainty that the rules of a multilateral trading system provide. Within the WTO, South Africa is building an alliance of developing countries, based on common ground on key issues. The focus has been to launch a new round of trade negotiations (after Doha) aimed at putting developing countries' concern at the center of the WTO's work (SATNC, 2002:73).

- **THE POLITICAL AND LEGAL ENVIRONMENT**

The political / legal environment is the arena in which organizations and interest groups compete for attention, resources and a voice in overseeing the body of laws and regulations guiding the interactions among nations. (Fahey & Narayanan, 1986). Essentially this segment represents how organizations try to influence government and how governments influence them. Often, how the organization intends to interact with the political/legal segment is captured through the development and use of a political strategy. The effects of a host of global government policies on the organization's competitive position increase the importance of forming an effective

political strategy. (Hillman & Hitt, 1999) across the globe governments are trying to develop policies that are in their countries' best interests.

The efficiency of the global economy is predicted on the availability of an efficient, reliable global transportation system. Worldwide-containerized freight volume has doubled in each of the last two decades and is forecasted to again double in the next decade. To keep up with this rapid volume growth, the intermodal freight industry must continue to expand operations and most importantly, continue to improve and maintain a high level of efficiency and reliability.

The world is currently in the midst of a paradigm shift in terms of the global intermodal movement of freight. The supporting infrastructure has been developed and constructed to promote the efficiency and reliability of freight transportation around the world. With the development of containerized cargo over the past half century, tremendous efficiencies have been realized in terms of economies of scale such as 6,000 TEU mega ships, intermodal transferability with seamless integration of ocean, road and rail and vertical space utilization at terminal yards sitting on expensive land. The global intermodal transportation industry has long known, however, that its underlying transportation system is vulnerable to security breaches. With rare exception, security concerns have been considered a distant third in importance to efficiency and reliability concerns. In the wake of the terror attacks that occurred on September 11, 2001, in New York City and Washington, DC, freight security challenges are receiving significantly greater attention.

In response to growing concerns, the US Customs Service announced two new programs to promote security within the global intermodal transportation system:

- The Customs-Trade Partnership against Terrorism (C-TPAT); and
- Container Security Initiative (CSI)

These programs aim to involve industry and governments around the world in developing security practices that enhance the global intermodal transportation system with minimal impact on efficiency and reliability.

The C-TPAT was officially launched on 6 April 2002. C-TPAT is a joint government-industry initiative that intends to improve co-operation between Customs, major US importers and transportation service providers to promote and ensure security throughout the global supply chain.

The CSI was announced on 17 January 2002. The CSI is not yet as structured as the C-TPAT but is already being implemented in a few ports around the world (USCS). Fundamentally, the CSI intends to involve foreign ports and associated governing bodies in establishing a worldwide security architecture that will ensure the security of the global intermodal transportation system with a focus on containerized cargo.

Currently, the top ten 'megaports' in terms of export volume to the United States have been identified as a logical group with which to pursue the initiative since they account for approximately half of this export volume. South Africa's port of Durban is listed as number 72 and the initiative aims to eventually involve all ports doing business with the United States (USCS).

Further the WCO adopted a Resolution on 'Security and Facilitation of International Supply Chain' and the G8 adopts a Co-operative Action Plan on Security covering all aspects of global transportation (WCO, 2002).

• THE SOCIO-CULTURAL SEGMENT

The socio-cultural segment is concerned with a society's attitude and cultural values. Because attitudes and values form the cornerstone of a society, they often drive demographic, economic, political/legal and technological conditions and changes.

Public management has been experiencing profound alterations in the past four decades, as a result of the increased importance of the service sector and significant changes in sectors of public administration of several countries. The increasing tax burden observed in the more developed countries (see figure 3.2) shows the significant weight of the public sector in the economy and a greater relevance of the public services, within the context of the post-industrial society or the so-called

information era. Undoubtedly, the information era brought a true revolution to the service rendering companies, such as the financial sector, transportation, communications, public services, demanding new capabilities and abilities to ensure competitive success. The intensity and speed of social changes linked to the high level of uncertainty which characterizes the end of the twentieth century and the beginning of the twenty first centuries, calls for renewing the regular concepts of service rendering and public management (CIAT, 2002).

Figure 3.2: Total Tax burden (OECD and EU 1965 – 1998 in a % of GDP)

Group of countries	1965	1970	1975	1980	1985	1990	1995	1998
OECD TOTAL	26.1	29.3	31.5	33.1	34.9	36.2	37.4	37.0
OECD – AMERICA	25.1	29.3	29.6	24.8	25.4	26.8	27.0	27.5
OECD – PACIFIC	22.1	23.8	23.7	26.1	27.0	29.8	30.0	28.8
OECD – EUROPE	26.8	30.1	33.3	35.9	38.0	39.0	40.1	39.8
EUROPEAN UNION (15)	28.2	31.6	34.5	34.5	40.2	41.0	41.8	41.3

Source: Revenue statistics 1965-1998, OECD

The public management approach is separated from the processes or bureaucracy of the administrative procedures toward the provision of quality public services to the citizens. The concept of quality in new public management brings new paradigms and challenges. “Can public administration and the public sector be efficient, productive and of quality? Can the public sector respond to the needs of citizens?” (INAP, 2000).

The re-orientation of the public sector toward the rendering of services to the citizens, in the search of response to social needs, requires a new management model capable of incorporating new concepts (efficacy, efficiency, effectiveness, quality) and new values (transparency, social responsibility) (CIAT, 2002:3).

Since the 1980’s new management methods are being consolidated, among which are mentioned (CIAT, 2002:3):

- Emphasis in the quality of products and services and total quality management;
- Re-engineering of processes
- Strategic planning;
- Use of balanced scorecards.

There is the need for the public sector to measure its results or, that is, the benefits generated to society even though being aware of the difficulties inherent in public management. Many times the impact of the action of an organization depends on factors exogenous to management, such as the global economic conditions, legal restrictions or political priorities, which render difficult an objective evaluation of the value which public administration contributes to the achievement of a result. In the specific case evaluation results of a Customs administration, one must consider the exogenous factors that may contribute to these results and which interfere in society's satisfaction with the administration's action, such as: the legal framework and changes in tax legislation; the economic juncture, fairness and equity in the application of resources collected (CIAT, 2002:3).

In this scenario, public organizations, as well as Customs Administrations are required to implement an evaluation system, based on a series of indicators, as an important instrument to guarantee the effectiveness and efficiency of the administrations.

Evaluation, as part of an integrated management control system, is essential for the modernization of Customs administrations, in such away that the design of the system of performance indicators may serve as basis for structuring the strategies and organizational planning process.

Ultimately, a series of indicators are developed to know "how we are doing" and if "we are headed in the right direction". The starting point of strategic thinking in order to indicate to the organization the right direction, is the analysis of the external (socio-economic) or internal (organizational) environment (CIAT, 2002:4).

• THE TECHNOLOGICAL SEGMENT

Pervasive and diversified in scope, technological changes affect many parts of societies. Their effects occur primarily through new products, processes and materials. The technological segment includes the institutions and activities involved with creating new knowledge and translating that knowledge into new outputs, products, processes and materials.

The knowledge and capabilities that are created by developing or using new technologies sometimes transform or revitalize an entire industry.

Given the rapid pace of technological change, it is vital for organizations to study the technological segment quickly and thoroughly. The importance of such efforts is suggested by the finding that organizations which are early adopters of new technology often achieve higher market shares and earn higher returns. Thus, executives must verify that their organization is continuously scanning the external environments to identify potential substitutes for technologies that are in current use, as well as to spot newly emerging technologies from which their organization could derive competitive benefits (Song, Benedetto & Zhao, 1999).

Technology will play an essential role in the integration of security practices with efficient operations. Information systems of various types and purposes will necessarily be employed. It systems can store and organize large amounts of trade data such as manifest information as well as real-time operational data regarding container locations and equipment-to-task assignments. Given this information, some systems can even optimize certain activities such as terminal space allocation, equipment-to-task assignments, container storage locations and loading/unloading plans. Electronic submission of correct key information such as manifest data from appropriate supply chain entities is essential in container targeting for inspections and terminal operations planning.

The use of bar codes, radio-frequency identification (RFID) devices, and global positioning systems (GPS) will increase the level of visibility within the supply chain which leads to better decision making. Electronic container seals can track the time

and date the containers door openings and closings which provides security officials with needed information to determine whether a secured container has been tampered with during transport. Radiation detection pagers are small, self-contained units (the size of personnel communication pagers) that alert the wearer of the close proximity of radiation. Such devices have found radioactive contraband (even smuggled weapons-grade material) around the world.

Cargo scanning systems represent some of the most important new technology being developed and deployed. Currently, x-ray and gamma-ray inspection systems are most commonly utilized in the United States. The US Customs Service is set to purchase somewhere between 50-100 gamma-ray inspection systems over the next two years which would add to their current 70 systems. Another technology that can actually detect the specific type of material and its precise three-dimensional location inside a container is pulsed-fast neutron analysis (PFNA). The US Customs Service currently has one PFNA system in place in El Paso, Texas (USCS, 2002).

Given the variety of technology available, effective co-ordination in deployment is of paramount importance. The US Customs Service already uses multi-layered pre-screening and risk management targeting techniques to determine which containers to inspect. There do exist some targeting decision support systems in use such the automated Targeting system used specifically for narcotics interdiction. However, in determining whether to inspect a specific container, the regional experience of Customs inspectors is currently the most important tool (USCS, 2002).

Clearly, information technology can be utilized to transmit correct freight information quickly, accurately and cheaply. This information can then be used to target containers for inspection. Electronic seals can eliminate some containers from consideration while ensuring that others need to be inspected. Information and decision –support technology can then be used to determine how operations should be adjusted to make targeted containers available to inspectors and inspection facilities with minimal operational impact. Using non-intrusive radiation detection pagers, x-ray and gamma based inspection systems can help determine whether containers should be subjected to more involved, invasive manual strip inspections (USCS, 2002).

Security needs may stimulate port business opportunities. One can envision situations where ports of origin or transshipment perform security checks on containers as a service in order to increase the percentage of secure containers entering the destination ports without affecting the efficiency of the destination ports. A key process innovation would be the ability of the port of origin or transshipment to check a significant percentage of such containers with no or little reduction in its port efficiency (USCS, 2002).

In conclusion, the integration of security into the global intermodal transportation system is an important and ongoing process. How effective this integration is performed will determine the ultimate impact on the effectiveness of the system. Fortunately, appropriate governmental policy, the availability of emerging technology and the state-of-the-art in operational practices should allow the global intermodal transportation system to provide unprecedented levels of cargo security without compromising the high levels of efficiency and reliability that global supply chains require.

3.6 INDUSTRY ENVIRONMENT

The globalization process, leading to an extraordinary increase in the international flow of people, goods, capital and information, changed radically the role of the government in the last decade of the 20th century. Government performance review has pushed up toward reform and modernization. The governance is more and more a strategic issue that must be dealt by all the nations.

In this scenario, with the increasingly importance of the international trade, Customs organizations play a key role. Customs procedures have a powerful impact on the economic competitiveness and the modernization of its procedures must be a target for any country. A modern efficient Customs operation can contribute to domestic priorities, facilitate trade and address complex international issues. Customs should not jeopardize the prosperity of the nation by driving away business and investment.

So, customs organizations in this new environment must be more effective in the protection of the economy but at the same time must act in order to encourage the

economic growth. In order to achieve these apparently two contradictory objectives, one of the most important tools is the trade compliance and risk management process.

- **THE PHENOMENON OF GLOBALIZATION**

One of the most important phenomena of the modern world is globalization. Globalization is one of the central concepts in current analysis of the economy and society. The term was first used more than 40 years ago and in the early 1990's the term was little used. By 2000 no speech was complete without it – even if those who used the term agreed on little more than the fact ‘that we now all live in one world’ (Braga, 2001:6).

So what does globalization mean? Most often, the term is synonymous with the extraordinary expansion of the global market place and increasing interrelationship of individual and countries lives and futures, politics and economic issues. However, globalization is much more than that. It is an ideology that defines basic expectation about the roles and behaviours of individuals and institutions (Braga, 2001:6).

At the core of the globalization movement, the communication revolution has strongly developed over the last decade: a lightning-fast communication, especially the Internet, meaning the speeding up of communications. In fact, many communications improvements have been taking place over the last century, but the contemporary speed of change, the enlargement of capacity for information transmission and the proliferation of communications media have not experienced before.

In an economic perspective, globalization is viewed as a process that can lead to fully internationally integrated markets, with free movement of goods and services, labour and capital. Thus a single market in inputs and full national treatment for foreign investors (and nationals working overseas) so that, economically speaking, there are no foreigners. It can be “the borderless world”, radical progress and modernity, and of life beyond limits of the traditional nation-state (Braga, 2001:6).

So, what we perceive is a “liberalization revolution”, a freeing up of markets and reduction in the role of government in terms of ownership and control over

productions of goods and services, with a process going to a free movement of goods, services, labour and capital. It's true that the globalization has been significantly retarded by the combined impact of autarkic-protectionist trade policies in many developing countries (though a considerable number of these are now being liberalized), and discriminatory trade barriers (tariffs, quotas and voluntary export restraints) rose against their products in developed countries.

But the process continues as has been manifested in successive rounds of multilateral and regional trade liberalization. In the world, the economic integration, within the framework of Free Trade Agreements or Customs Unions has been a major force in reform and international liberalization has resulted in booming trade volumes as can be seen in figure 3.3. Figure 3.4 shows a comparison between the total GDP and Total Imports of the world in 1990, 1995 and 2000 (considering 1990 equal to 100). One can see that, during the last decade, the percentage growth of the international trade (88%) is bigger than the percentage growth of gross domestic production (25%) in the world. This fact shows how international trade is growing exponentially with the globalization process.

Figure 3.3: COMPARISON BETWEEN THE GROWTH OF TOTAL GDP AND TOTAL IMPORTS IN THE WORLD

Years	Total GDP in the world (1990 = 100)	Total imports in the World - (1990 = 100)
1990	100	100
1995	107	147
2000	125	188

Source: Data from the World Trade Organization - internet site

In Figure 3.4 it shows how international trade increased throughout the world, imports as well as exports between 1980 and 2000 in absolute numbers.

Figure 3.4: AMOUNT OF EXPORTS AND IMPORTS IN THE WORLD

REGIONS	EXPORTS (US \$ BILLION)			IMPORTS (US \$ BILLION)		
	1980	1990	2000	1980	1990	2000
WORLD TOTAL	2,035	3,442	6,364	2,075	3,542	6,669
NORTH AMERICA	294	522	1,058	320	641	1,504
LATIN AMERICA	110	147	359	123	130	388
WESTERN EUROPE	816	1,637	2,441	926	1,700	2,567
ASIA OCEANIA	324	792	1,828	351	762	1,661

Source: Data from World Trade organization internet site.

Observing the percentage of growth in the international trade in figure 3.5 between 1980 and 2000, one can foresee the challenges the Customs organizations will face in this new millennium to contribute to the development of the nations.

Figure 3.5: PERCENTAGE OF GROWTH IN EXPORTS AND IMPORTS

REGIONS	GROWTH IN EXPORTS (%)	GROWTH IN IMPORTS (%)
	1980 - 2000	1980 - 2000
WORLD TRADE	212.73	221.40
NORTH AMERICA	259.86	370.00
LATIN AMERICA	226.36	215.45
WESTERN EUROPE	199.14	117.21
ASIA AND OCEANIA	464.20	373.22

Source: Based on data from the world Trade Organization internet site

More than the increase of international trade, the economic globalization happens on capital movements. That also influences the trade, for example, in the role of the multinational companies, moving towards internationally integrated production in some fields. Maybe the most truly global market – in the sense of globally market – in the sense of globally integrated systems and complete economic integration –

resulting in instant mobility of capital and globally uniform prices: the financial markets.

The broad picture is clear: world trade in goods and services, foreign direct investment and increased financial flows all suggest growing interdependence and this interdependence affects all the society. The government is not out of that environment on the contrary is on the frontline.

- **GLOBALIZATION AND ITS IMPACT ON CUSTOMS**

There are several specific ways in which the globalization is having a profound implications for the way in which business is transacted and the way government is organized and structured. All these ways have cumulated into a fundamental transformation of governance, a transformation that poses substantial challenges for public institutions and how one manages them. It's important to say there are good reasons to believe that a reversal in this tendency is highly unlikely though not impossible (Braga, 2001:10).

The performance of any Government, it's to say, its effectiveness, efficiency, responsiveness and accountability, depends on facing all this changes in the environment and preparing to the future. Globalization defines the agenda for governance in the early twenty-first century. It's a challenge for government, not only to devise new strategies for managing public programs effectively in a globalize policy world, but also to build the capacity for doing so.

National economies are, also, more and more interconnected, as customs duty rates are dropping worldwide and as the cross-border information flows is increasing, whatever the policymakers want it or not. For example, there is growing trade over the Internet, because electronically driven commerce – the e-commerce. The cost to industry of government processing is becoming an issue of greater concern to government, international organizations and business (Braga, 2001:10).

On the other hand, all this process of freedom of movement has also contributed to increase the rate of many security problems for a nation. As the barriers to commerce

come down, it becomes more difficult to stop traffic in goods or services, organized crime, terrorism, immigration, fraud, contraband, smuggling and intellectual property rights violations, all crimes related with the Customs Organizations.

- **THE NEW ROLE OF CUSTOMS**

Customs organizations throughout the world hold a unique position within a country's government and within the international community. Customs is often the first contact foreign businesses and travelers have with the government. A satisfactory encounter with customs can encourage continued commercial activities. Therefore, customs as an agency positioned on a country's international borders, looking both inward and outward, is facing a challenge of working to protect the national economy while also helping to encourage dynamic solid economic growth (Braga, 2001:11).

Customs administrations have always had to meet the challenges of rapid smooth and secure processing of goods clearance operations. Now more than ever before; one of the key goals of customs is to reconcile the facilitation and control of trade, whilst protecting society. Customs is currently faced with two major challenges:

- Processing the exponential growth in legitimate trade, and
- Combating an array of threats to our national society.

Thus globalization affects Customs activities with the increasing demand of government, importers, exporters, brokers, travelers, carriers and society for higher revenue, faster service, more reliable information, better statistics, increased protection of economy, environmental and agricultural controls and improved enforcement performance. At the same time, with the explosive growth of international trade, in terms of volume and complexity, travels and tourism, there are additional pressure on the customs organization, budgets and staffing, so that it is putting the capabilities of all customs services to the test (Braga, 2001: 11).

In its most simple terms one can say that the goal of customs is to ensure that all imports and exports comply with laws and regulations. In other words, customs must

with a comprehensive, responsive, and timely action, create responsive knowledge management capability in order to increase compliance with the laws of a nation at its borders. In figure 3.6, there is a summary of the main customs functions.

Figure 3.6: MAIN FUNCTIONS OF A CUSTOMS ORGANIZATION

THE MAIN ROLES OF THE CUSTOMS ORGANIZATIONS
Assess and collect all appropriate duties, taxes, fees and penalties due on the foreign trade, and protecting government revenue
Facilitate legitimate trade, travel and tourism
Interdict and seize trafficking in narcotics, other contraband and smuggling
Combat intellectual property rights violations, frauds and money laundering
Enforce the protection of environment, health and public safety
Promote a uniform and transparent system for Customs Organization
Processing persons, baggage, cargo and mail according to laws and regulations
Collecting accurate import and export data for the compilation of international trade statistics

• THE NEED FOR MODERNIZATION OF CUSTOMS SERVICES

The modernization of the customs services is the way to achieve excellence in customs procedures, in order to face this new scenario on the world economy. Taking account of the lessons of the past and the realities of the present, the governments must shape the future of the customs.

In this modernization process, the automation plays a very important role. Many countries, including United States, Brazil and South Africa have already developed automated systems in the import and export procedures as noted in Figure 3.7. In figure 3.7 one can note that these countries are working on the automation of their international trade procedures.

Figure 3.7: MAIN AUTOMATED SYSTEMS IN IMPORT AND EXPORT PROCEDURES

	UNITED STATES	BRAZIL	SOUTH AFRICA
IMPORTS	Automated commercial system- ACS (since 1984) and automated commercial environment (ACE – since 1998, is in a process of replacing the ACS)	Siscomex – foreign trade Automated systems – imports (since 1997) and mantra – manifest cargo and inbound system (since 1995)	Customs Automated Processing of Entries – cargo manifest system Electronic Release Information Accreditation
EXPORTS	Automated export system (AES)	Siscomex – foreign trade Automated system – export (since 1994)	Customs Automated Processing of Entries – cargo manifest system Electronic Release Information Accreditation
PASSENGERS	Automated passenger inspection (APIS)	-	Passenger Risk profiling system

But, more simply automation of the procedures, the path customs must follow is its use to increase reliance on the use of intelligence as a tool for greater selectivity in the inspections and audits. Automation will have very significant benefits for customs, as the administration of the future will rely on accurate and timely information in order to carry out its function, with more accurate and timely statistical information.

Many customs administrations are also embarking on a new era of performance measurement as a way of guiding the effectiveness of their initiatives and efforts that will increase the demands for risk assessment skills (Braga, 2001: 15). They are introducing management audit as a means of quantifying the movement of goods and travelers to aid the allocating resources and to measure results. Total quality management philosophy and practices will play a pivotal role in customs managerial practices in the years ahead.

In this new philosophy, developing industry partnerships is another target. It means that customs must remove barriers to get closer to their customers (Braga, 2001: 15). Customs administrations have to change the way they conduct business, taking the position that importers and exporters are customers and must be treated as partners, not adversaries. Not only improving service to customers is a major challenge, but also to improve importers, exporters, brokers and carriers compliance.

A Prior Disclosure Program in United States or Accreditation in South Africa, for example, can stimulate the compliance, because makes the participants of the foreign trade work together with the Customs service. The goal is higher compliance, it is to say, to have a permanent process where the trade entities establish procedures or evaluate existing procedures to maximize trade compliance.

Partnerships are important not only with the importers, exporters, brokers and carriers but also with other government agencies and closer co-operation between customs administrations themselves. The World Customs Organization – WCO stimulates this dialogue, exchange and sharing of information between Customs officers throughout the world. For a closer relationship its essential the acceptance and implementation of international customs standards on value, classification origin and procedures.

So, as technology plays an increasing role in the Customs procedures, the adequate management of that information becomes of critical importance. It is currently necessary to assist the Customs data management, in order to change the face of customs enforcement with the emphasis on flexible, risk based and targeted operations accentuated intelligence as the principal weapon to identify fraud and smuggling and the effective deployment of limited human and technological capital. As Customs administrations see to maintain and increase their efficiency and effectiveness, risk management, which allows for better targeting their resources towards these areas where most warrant attention.

By using the principles of risk management, based in a process of trade compliance, Customs administrations will be able to demonstrate and ensure the best available outcomes for the country within the constraints of the resources they are given. The importance of risk management is in using strategic intelligence to support the effective achievement of organizational objectives. In the enforcement context, strategic intelligence will provide Customs Administrations with a timely insight of current and emerging trends, threats to public safety and avenues for change to policies, strategies and legislation (Braga, 2001:15).

3.7 COMPETITOR ANALYSIS

Risk is the key word, and risk management has become the main tool for the modernization of customs administrations globally.

One experiences risk is a common part of daily life. There is uncertainty in almost all aspects of day-to-day living. Risk is characterized by the fact that is partially unknown, increases with lack of knowledge, changes with time but is manageable. Managing these risks is a natural reaction to minimize the level of potential harm that comes with not knowing what the future might hold. In customs, one can define risk as the degree of exposure to the change of non-compliance, which would result in loss or injury to trade, industry or the public.

Risk management is equally common, since it is an instinct to reduce potential problems and take advantage of opportunities and the Customs' employees in the daily work practice it. The challenge is to practice it in a more uniform, systematic and disciplined manner.

This new environment that Customs services are now facing must point that there is no sense at all in use the finite technological and human capital to perform limited inspections and reviews on all the imports, for example. The fact is that we can perceive, based on our own experiences, that some importers and some imports present a much more significant risk than others, therefore, its clearly more effective to perform extensive, thorough reviews on a smaller percentage of imports.

So it is wrong to assume that all importers and therefore all imports are some how deficient and result in a loss of revenue or present a threat to the government and public. Customs has accepted the fact that many importers are legitimate and comply with the import laws and do not present a risk that justifies a significant allocation of resources. Customs administrations must focus on what the greatest risk of loss to the government and public. This logic leads to performing a risk analysis or risk assessment to determine who and what merits attention. To contend with new reality, Customs has to turn to the principles of risk management. Risk management can with

the help of new technologies; facilitate enforcement in a dynamic new era of global trade (Braga, 2001:16).

The ever-increasing volume of world trade, the pressures from traders to expedite the release of consignments from customs control, the need to ensure that legitimate trade flows freely, not to mention the scarcity of available resources within customs, have made it more and more difficult to carry out effective physical controls at ports of entry.

But, even for those targeted checks, the costs (both direct and indirect) which are implied by the full turn-out physical examinations of trucks, sea and air-borne containers are huge. For example at the Port of Le Havre, the mere cost of unloading a container is ranging from 8,000 French Francs (roughly US \$ 1,600), or for an ordinary containers, to 25,000 French Francs (US \$ 5,000) for a refrigerated one (Heimann, 2000). No wonder customs feel reluctant to go to such an expense or even to pass the financial burden on to the trade (where such a facility is provided for in customs legislation), in the absence of a clear indication that such a search would lead to successful results.

At the Port of Le Havre, the use of x-ray scanners for containerized cargo has been viewed, from the start (the decision of the French Government to fund such equipment goes back to the 1990's), as a means to reconcile the need to strengthen the fight against drug, smuggling, tax evasion and the legitimate concerns of the port authority as well as of the local trade community over the competitiveness of the port in the Northern Europe (Heimann, 2000). Computer interfaces and procedures have been successfully integrated within the existing EDI port and customs systems in order to fasten and ease the x-ray scanner use in the port community. Similar x-ray scanning facilities are being utilized all of the developed countries and many developing countries such as Ghana, Nigeria, China and Singapore. It would seem that these governments could not disregard the strong pressures exerted by the trading community, expecting customs to redefine their operational activities in a way that would reflect their business imperatives in a new environment of globalization, declining tariffs and trade barriers, regional economic integration and changing business practices such a just-in-time (Garcia, 1999).

Even though Latin American and East Asian countries have adopted a process customs reforms. However many of the countries are still in a cycle of collusion, corruption and deadweight is characteristics of most of their customs departments (Garica, 1999).

In Mexico, the customs reform started in 1989 and was impressive at the beginning with efforts to be more efficient and stamp out corruption. In Brazil, Santos, this has become one of Latin America's busiest and most corrupt ports and many companies incorporate bribes as a cost-of-business expense (Garcia, 1999).

In East Asia one can find the same worries in different countries, in Thailand the business leaders complain that customs-related costs, red tape and delays make Thai exports significantly less competitive. Indeed customs reform was stalled for years. But with competition for export markets intensifying, customs inefficiencies are looming larger. Accordingly to Michael Lane in his book "Customs modernization and the International Trade Superhighway": *"building a better customs organization and streamlining the system for processing goods across international borders will not automatically propel a nation to the top echelon of industrialized nations. But a slow, inept, corrupt, unreliable or inconsistent customs regime will certainly condemn a nation to the bottom rung of the economic ladder"* (Garcia, 1999:10).

3.8 INTERNAL ANALYSIS

The analysis of the organizational context or, that is, the internal environment is a fundamental requisite for integrated management. The new paradigms of public management, that are set against bureaucratic management, emphasize the decentralization of decisions, the mechanisms for participative planning and social control, with the involvement of the largest possible number of organizational agents for achieving common objectives.

3.8.1 SWOT ANALYSIS

The SWOT analysis provides information that is helpful in matching the organization's resources and capabilities to the competitive environment in which it

operates. As such, it is instrumental in strategy formulation and selection and accordingly a SWOT analysis of the strategic environment is pursued below.

i) STRENGTHS

- **SARS TRANSFORMATION**

SARS Transformation Programme (Siyakha – “We are Building”) has improved operational efficiency, organizational effectiveness and meets the needs and expectations of taxpayers and traders. The SARS transformation programme is the most ambitious organizational transformation in the history of tax / customs administration in South Africa. The key elements of the strategy are process re-engineering, adoption of a customer-centric view, appropriate leveraging on technology, feasible tax and customs integration and risk responsiveness in SARS business (SARS, 2002).

- **SIYAKHA 1**

The financial year 2001/2002 witnessed the rollout of the Siyakha pilot in KZN. This sought to provide the processing and physical infrastructure required for SARS transformation through the introduction of a focused approach in four areas, namely service, processing, compliance and Customs. Overall, the pilot was a success in enhancing processing efficiency and effecting the migration towards a team based culture. Further, establishment of a dedicated service center and Points of Presence marked a significant shift towards a service orientated approach. Key learning provided by the pilot was in the areas of fragmentation across centers, skills gaps and the need for enhanced service and technology enablement (SARS, 2002).

- **SIYAKHA 2**

The changing environmental dynamics (internally and externally) coupled with the opportunities provided by the Information and Communication Technology (ICT) revolution, highlighted the need to expand the present scope of Siyakha in order to

leverage on technology, further entrench a service culture and achieve integration (among centers and between tax and customs components). This expanded the original Siyakha programme into a technology enabled, enterprise-wide Siyakha, termed Siyakha 2 (SARS, 2002).

- **CUSTOMS OPERATIONS**

The Customs component achieved the following during the period under review (SARS, 2002):

- The successful implementation of the client accreditation scheme - which results in legitimate traders being accredited and deriving the benefits of improved service as long as they remain compliant.
- Adoption of teaming nationally to allow for greater skills transfers and enhances Customs culture.
- Implementation of the export project.
- Registration initiative that contributed to a more comprehensive database of traders and facilitating an integrated view of the client.
- The completion of all functional specifications for the Customs Siyakha initiatives.
- Alignments of procedures with Revised Kyoto Convention – new enabling legislation and rules governing transit, warehouse control and declarations have been established. In addition, a quality management system has been implemented to ensure that all policy and procedures adhere to the recommendations within the Convention.

- **ACCREDITATION OF LOW RISK TRADERS**

The accreditation system was implemented in March 2002. SARS has reached an agreement with the Edgars Consolidated (Edcon Group), which entails the group not dealing with suppliers who are not accredited by SARS. A strong campaign is underway to audit and accredit approximately 600 Edcon suppliers. An extensive workshop was held with the Road Freight Association to explain the details of

accreditation and its benefits. The Association has launched a campaign to promote accreditation and prepare its members for accreditation. Thus far, 19 clients have been accredited, which include the biggest four clients of SARS In terms of volume (SARS, 2002).

• STAKEHOLDERS

In line with the commitment to ensure and foster partnerships with other stakeholder and taxpayers groups, SARS initiated a Partnership for Better Compliance and Service Programme. This programme attempts to increase co-operation with these stakeholder and taxpayer groups to facilitate and encourage better compliance within each sector.

SARS recognizes that it cannot achieve its aims without forming strategic partnerships and alliances with key agencies and interest groups such as trade unions, organized business, professional associations, other government-departments and international revenue and customs administrations. The continued collaboration and healthy interaction between SARS's policy departments and those of fraternal department institutions such as the National Treasury and Trade and Industry, will support the transformation in a more fundamental way. The strategic plan for 2002/3 is geared towards promoting these relationships in a mutually beneficial way (SARS, 2002).

ii) WEAKNESSES

• FUNDING

Wavering fiscal health, governments' fiscal fortunes are generally tied to the health of their economies. When economies are strong, higher employment couples with increased consumer spending to produce more tax revenue and larger budgets. Likewise, when companies falter and consumers switch to more guarded consumption, as is happening right now, governments budgets tighten. The peaks and troughs impact the latitude governments have in implementing projects and hence the

degree to which they can utilize partners. So while the best economist can't predict when bad times will end and good times start, governments need the power to financing models and outsourcing models according to their fiscal health and the process to ensure it provides the most value (Deloitte, 2002).

Transformation initiatives require funds. In the era of significant budget constraints, a methodical approach to funding based on sound business cases helps resolve tight technology infrastructure budgets.

Constant re-evaluation of the funding strategy, the business case, changing customer needs and government strategies need to feed into funding decisions. For example the funding strategy for the Ghana in its x-ray scanner initiative takes a methodical approach by assessing funding and customer needs continuously. Ghana adopted a hybrid-funding model that blended private-sector investments with transaction, convenience and subscription fees. It continues to examine other funding options to increase the flexibility and sustainability of the model. Further Ghana uses its legislation as a foundation for determining its approach to funding.

- **COSTS, BARRIERS AND PROBLEMS WITH IMPLEMENTATION OF SECURITY TECHNOLOGY**

Careful consideration must be given to the question of securing the financing on which capacity building depends. The development and application of supply chain procedures and measures calls for considerable financial, human and technical resources which not every Customs administration has at its disposal. In these circumstances, the financial commitments of WCO Member countries will have to be supplemented by approaches not only to international donor institutions but also to private industry, banks and insurance companies (WCO, 2002).

The fixed cost of the acquiring security is stated below and gives an indication and these costs do not take into account upgrading of technology, maintenance of equipment or the costs of replacement.

- **FIXED COST OF SECURITY EQUIPMENT**

- Stationary gamma and x-ray scanners cost about \$5 - \$8 million;
- Mobile scanner trucks cost about \$3 million;
- Disposable E-seals cost approximately \$10 to \$25 each;
- E-seal reading machines cost \$25,000;
- RFID readers range from \$800 to \$7,000 per unit;
- Long-range RF tags range from \$15 to \$75;
- Short range tags are now between \$0.05 and \$1.50;
- Servers can run up to \$27,000 and software costs between \$500 and \$160,000 (Bonner & Wright, 2002).

- **ACCELERATING TECHNOLOGY CHANGE IS OUTPACING GOVERNMENT ACQUISITION**

Just as each new generation of technology appears more quickly, its predecessors fall more rapidly into obsolescence. Thus governments locked into drawn out procurement cycles stand to lose when it comes to having sound options for the future.

- **COST OF IMPLEMENTATION PROCESS**

- **TRAINING EMPLOYEES**

- With new technology, an organization also needs to train employees to use it.
- If problems arise, companies may have to pay consultants to fix them or further educate employees.

- **INCREASED LABOUR COSTS**

- Security measures increase the amount of labour needed to load, unload, or inspect cargo and to run specialized equipment.
- Additional cost of hiring a special operator.
- Repacking of international shipments.

- **THROUGHPUT DELAYS**

- 24-hour advance manifest information submission.
- Increases in cargo searches and scanning.
- Minimize delays by re-routing shipments.

- **TECHNOLOGY ACCEPTANCE PROBLEMS**

- Fear of personal x-ray exposure.
- Employees wear radiation-sensing safety badges as a precautionary measure.

• **INSUFFICIENT LABOUR RESOURCES**

People are universally cited as the key enablers of successful service delivery, but governments constantly struggle to hire, train and retain staff across multiple departments. Linked to budget health, staffing levels and composition will vary over time. A smart partnering strategy, then, must let governments fully leverage the skills of their current people while making sure that the skills of partners are applied complementarily.

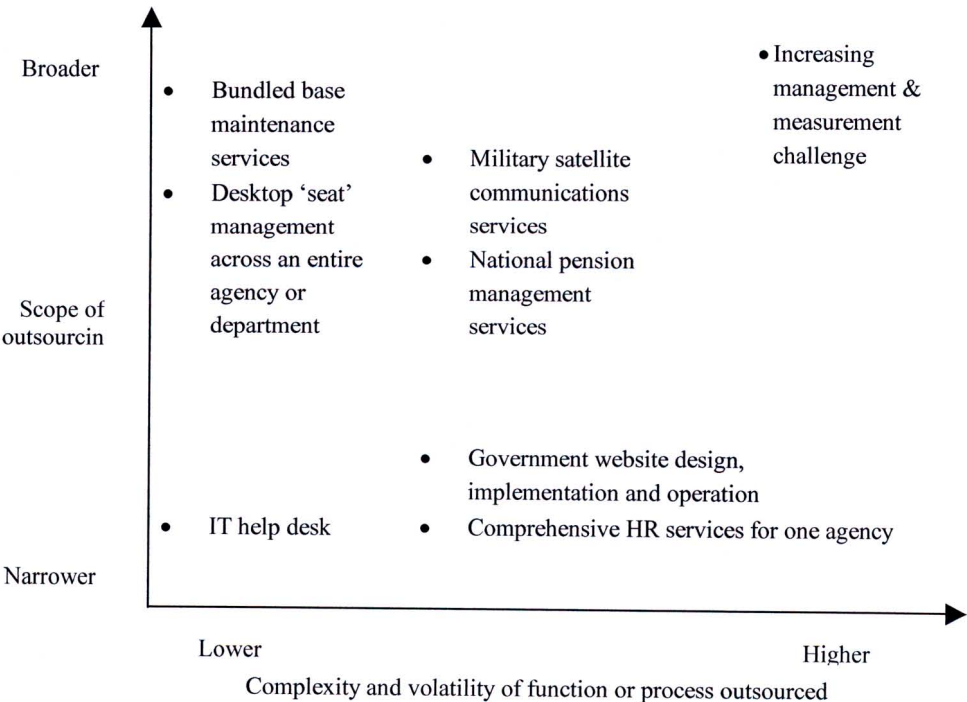
On average in South Africa, customs officers are currently to manually inspect only about 3% of all cargo crossing the country borders as imports. And an even lower percentage is inspected with regard to export cargo. Based on these physical inspections the examiners found that more than 70% of the customs declaration forms did not correspond to the consignments. Taking these figures into account, huge financial losses, as a result of false and non-declarations can be realized. Losses on political economies emerging from the smuggling of contraband are not taken into consideration for this contemplation. The Central Intelligence Agency (CIA) World Fact Book in 2001 reported that South Africa's border is very porous. It is considered one of the major drug, arms and counterfeit merchandise smuggling points in the world. The Cali Cartel of Columbia along with many of the Nigeria smuggling syndicates are known to have 'set up shop' in South Africa (CIA, 2000).

The lack of a sufficient border patrol with only 1750 soldiers patrolling a border that is 4750km long bordering six countries, 2 of them landlocked and a coastline that is 2798 km long. It is estimated that the borders are understaffed by 50%. Due to this 5 million illegal immigrants have been able to enter the country. 15% of the crime attributed to illegal immigrants and over 905 of the cocaine trade linked to illegal Nigerian immigrants. (McKeever, 2001:6).

• **NEGATIVE CULTURE OF OUTSOURCING**

Outsourcing services and processes in government circles generates a certain amount of controversy. The results are usually mixed where some outsourcing initiatives fail to produce the expected results and many government executives see it as a means of government ‘downsizing’, an abdication of accountability or simply a risky financial maneuver. Outsourcing processes are more complex, more subject to change and broader in scope – exactly where many executives are heading with their initiatives – this magnifies the potential value of the initiative, but also increase the difficulty in measuring results as reflected in figure 3.8.

Figure 3.8: INCREASING SCOPE AND COMPLEXITY MAKE OUTSOURCING MORE CHALLENGING



Source: Accenture, 2002

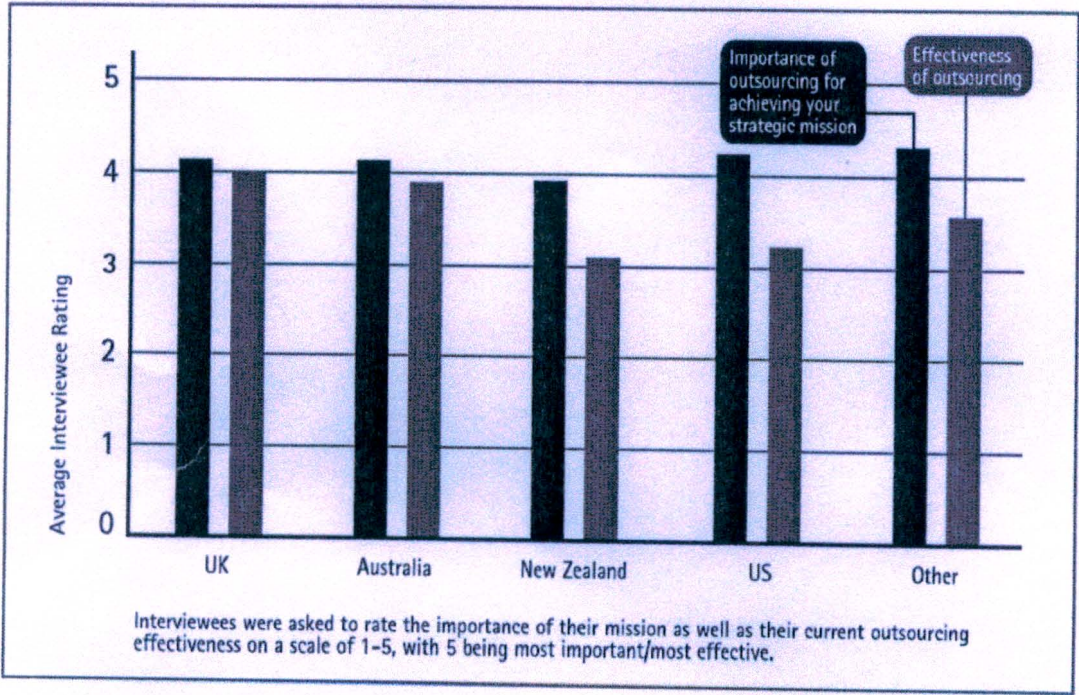
Government executives lean on static concepts like “non-core” and “inherently governmental” to frame their outsourcing initiatives. These narrow guidelines, an emphasis on doing deals rather than managing relationships and the conventional outsourcing practices that accompany them lead to approaches that limit flexibility.

Performance – orientated governments institutionalize good outsourcing management through activity based budgeting, clear goals and objectives and visible progress reporting. They master techniques for dealing with obstacles that arise, from tough labour unions and changing political administrations to reluctant finance departments.

What benefits do government organizations achieve when they make outsourcing part of everyday good management? First, they drive continuous improvement in their own distinctive capabilities. It also helps public sector organizations drive innovation continuously instead of waiting for a service crisis to create political will for action.

According to the Accenture survey which is reflected in Figure 3.9, most government executives concede that there is room to improve outsourcing effectiveness.

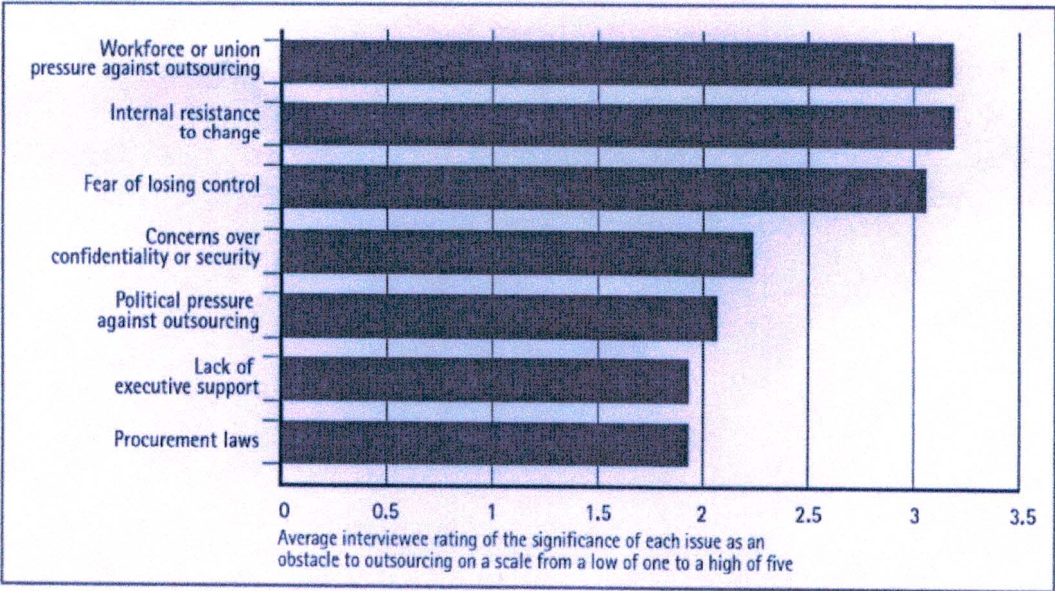
Figure 3.9: MOST GOVERNMENTS HAVE ROOM TO IMPROVE OUTSOURCING EFFECTIVENESS



Source: Accenture, 2002

Accordingly to an Accenture survey, many government executives interviewed described significant obstacles to effective outsourcing, ranging from difficulties managing the politics of outsourcing to issues with employees. Of all the obstacles they faced, on average, they rated workforce and union opposition as well as internal resistance to change as the most significant hurdles to overcome as reflected in figure 3.10. In order to craft outsourcing contracts that will produce the promised benefits, executives must overcome these hurdles.

Figure 3.10: INTERVIEWEES RATED WORKFORCE ISSUES AS THE MOST SIGNIFICANT OBSTACLES TO OUTSOURCING



Source: Accenture, 2002

iii) OPPORTUNITIES

Commercial ports play a crucial role in South Africa’s transport system and its economic development, and are therefore treated as strategic entities by the National Transport Policy, combined with the strategic geographical position of South Africa’s coastline, the port system can have a multiplier role on the economy of the country and the Southern African Development Community (SADC) region (DOT, 2002). From a strategic perspective, the pursuit of this policy is to ensure an internationally competitive port system. Efficient ports are known to be catalysts for increased trade,

and thus provide a comparative advantage for international trade. Government recognizes the strategic value of the commercial ports system in South Africa, in the context of international trade initiatives and the changing global transport environment (DOT, 2002).

South Africa's commercial ports system should be globally competitive; safe and secure, operating at internationally accepted levels of operational efficiency, in a manner that supports the goals and objectives of the RDP and GEAR (DOT, 2002). Additionally, it should serve the economy and meet the needs of port users in a manner that is economically and environmentally sustainable.

The vision of the National Ports Authority (NPA) is (DOT, 2002): *"A system of ports, seamlessly integrated in the transport network, that is jointly and individually self-sustainable through the delivery of high levels of service and increasing efficiency for a growing customer base, enhancing South Africa's global competitiveness and facilitating the expansion of the South African economy through socially and environmentally sustainable port development."*

• GOALS OF THE NATIONAL COMMERCIAL PORTS POLICY

In order to deliver on this vision a number of broad goals need to be pursued, these are (DOT, 2002):

- To invest in port infrastructure, superstructure, equipment and system in ways which satisfy social, financial, economic or strategic investment criteria;
- To improve the safety, security, reliability, quality and speed of port operations and services;
- To enable port users to access the port system in the most efficient way possible;
- To promote good employment practices and standards;
- To achieve the above goals in a manner which is economically and environmentally sustainable, and minimizes negative externality impacts on non-users; and
- To promote inter-modalism.

- **IMPROVING THE COMPETITIVE POSITION OF SOUTH AFRICA'S COMMERCIAL PORTS**

Competitiveness is defined as ensuring that the port and transportation system can meet the requirements of its users. Competitiveness is a key aspect that influence South Africa's place in global markets. To compete successfully for business in domestic and international markets, ports and other transport operators must have the ability to move people and cargo efficiently, reliably and at a reasonable cost without infrastructure impediments or congestion delays (DOT, 2002).

For exporters and importers, competitiveness translates into a demand for intermodal services that provide speedy movement through ports and terminal transfer facilities to landside transportation. It also translates into a demand for ready access to the transportation information that is needed by all parties in the various transactions involved in trade. There is a sense of urgency among some port stakeholders who maintain that there is not enough spending on construction, operations and maintenance for ports (DOT, 2002).

The future competitiveness of the port system and infrastructure will be influenced by the capacity issues. Thus, there is a need to improve the productivity, throughput capacity and accessibility to meet the expected growth in international trade. The primary function of the port system will be, as gateways to the world, to operate with modern infrastructure provided by dependable funding sources, using optimal technology. In terms of capacity, efficiency, safety and security and environmental enhancement, the ports will be world class. The inland transportation capacity will match the ports throughput (DOT, 2002).

- **DEPARTMENT OF TRANSPORT - FREIGHT VISION FOR 2020**

By 2020, the transport system will meet the needs of freight customers for sustainable, highly reliable and rapid transport services at low systems cost through intermodal networks comprised of road, rail, sea, air and interchange infrastructure. The system

will be based on the seamless integration of all modes and multiple networks. In so doing, the freight transport system will enable and support regional integration and competitiveness, the national export-led growth strategy and the spatial redistribution of development. It will achieve this through focusing resources to upgrade the transport system serving the exporters of value-added manufactured products (DOT, 2002).

In support of these goals and focus, the integrated strategic framework for freight will (DOT, 2002):

- Consolidate the scope of different parts of the system in order to create high volumes of demand into a Strategic Network of dense corridors and nodes. Supporting this strategic backbone will be a Supporting Network stretching across the rest of the country. It will be characterized by lower fixed cost and higher variable cost structures in operations and infrastructure that will provide low cost, high frequency services to general freight customers, as well as user-funded tailored or dedicated solutions to customers with more sophisticated needs.
- Deploy transport modes to achieve optimal economies of scale for a given volume and distance in both the Strategic and Supporting Networks. The result will be high quality services at optimal cost, which will include externality costs.
- Enable the emergence of demanding customers and a climate of value-based competition such that transport providers are enabled and obliged to innovate and upgrade productivity and efficiency to meet the dynamically changing needs of customers.
- Going down this road will systematically unwind the legacy of a transport system built to support past industrial strategies, and will build a new platform for new needs that will:
- Empower customers and develop customer sophistication.
- Create appropriate basic and advanced factor inputs to support the new freight strategy.
- Develop industry structures to capture appropriate economies of scale, promote value-based rivalry between modes and firms where appropriate,

and drive innovation and continuous upgrading in transport services and infrastructure.

- Create and enable innovative institutional and regulatory structures which can strategically co-ordinate implementation and major investment in an integrated fashion, supported by an effective and rational funding framework, and create an enabling environment for industry to make choices, which support the vision. An effective monitoring and enforcement regime will ensure that only operators playing within the 'rules of the game' will prosper.

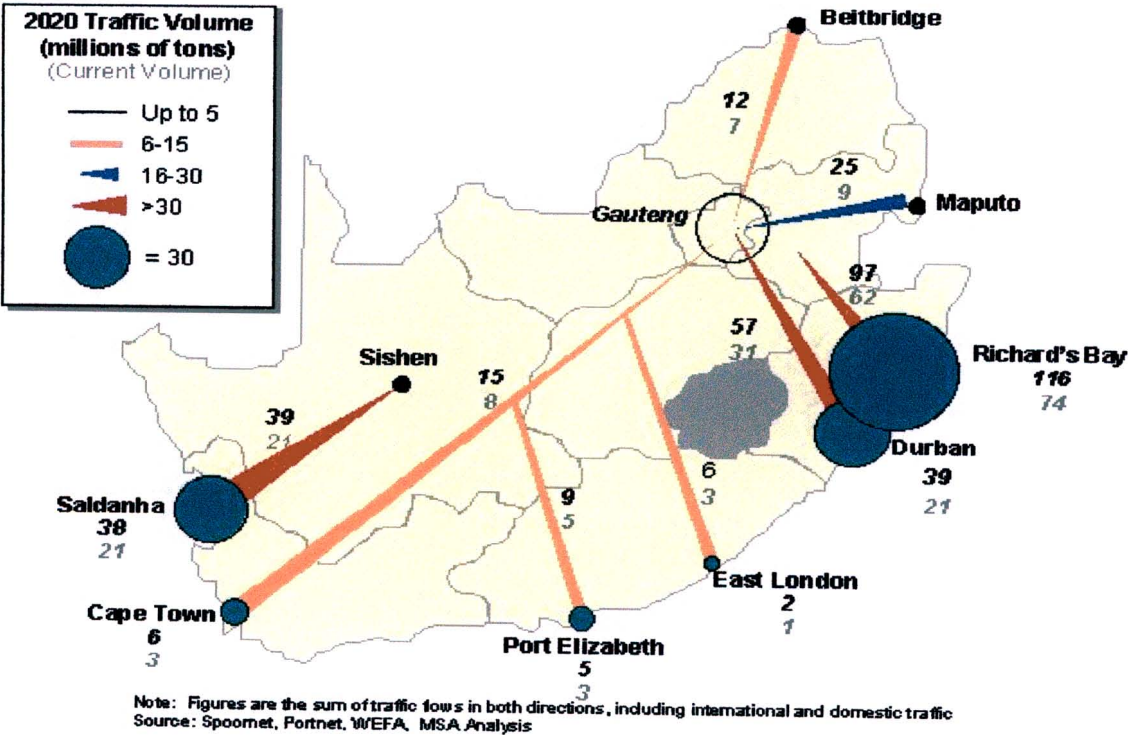
- **FREIGHT TRANSPORT AND ECONOMIC DEVELOPMENT**

Flowing from the legacy of an import substitution economy reliant on the support of cheap raw commodity exports, South Africa's freight transport system is characterized by a vast network of rail and road systems supported by six commercial ports. Within this sprawling network freight volumes have consolidated over time, with almost 50% of total freight tonnage being transported in a few corridors (those supporting commodity exports and those linking Gauteng to the coast and neighbouring states). Low demand densities now characterize the rest of the network. This pattern developed organically over decades of industrial activity conditioned by the imperatives of 'separate development' (DOT, 2002).

However, since 1994 South Africa's industrial strategy has shifted to support the new national objectives of balanced growth and redistribution. This new industrial strategy of prioritizing export-led growth built on the foundation of value-added exports, integration within the SADC and a focus on correcting the spatial legacy of apartheid development - presents major challenges for transport. The DOT found that because the transport system was constructed and configured to support a very different set of historic choices, there is considerable mis-alignment between the new industrial strategy and its transport base. The transport system is now unable to meet either the cost or the service demands of the customers who lie at the heart of the new industrial strategy.

DOT was also presented with a difficult challenge of its own in developing a transport strategy to support the new industrial strategy. The challenge is to support the national objectives of both export-competitiveness and the spatial redistribution of development. Recent business location decisions are reinforcing the pattern of consolidation in existing high-density corridors and nodes, and macroeconomic forecasts and demand forecasts indicate that overall freight flows in South Africa will continue to consolidate on the existing major corridors, with volumes forecast to increase substantially by the year 2020. Even optimistic forecasts of demand generated by new projects and Spatial Development Initiatives (SDIs), which are off these corridors, do not change the pattern of consolidation dramatically. This presents particular challenges for government with regard to how it should focus its own infrastructure investments. Figure 3.11 gives an indication of the anticipated volumes flows for the year 2020.

Figure 3.11: CURRENT AND 2020 FREIGHT VOLUMES AND DESTINATIONS



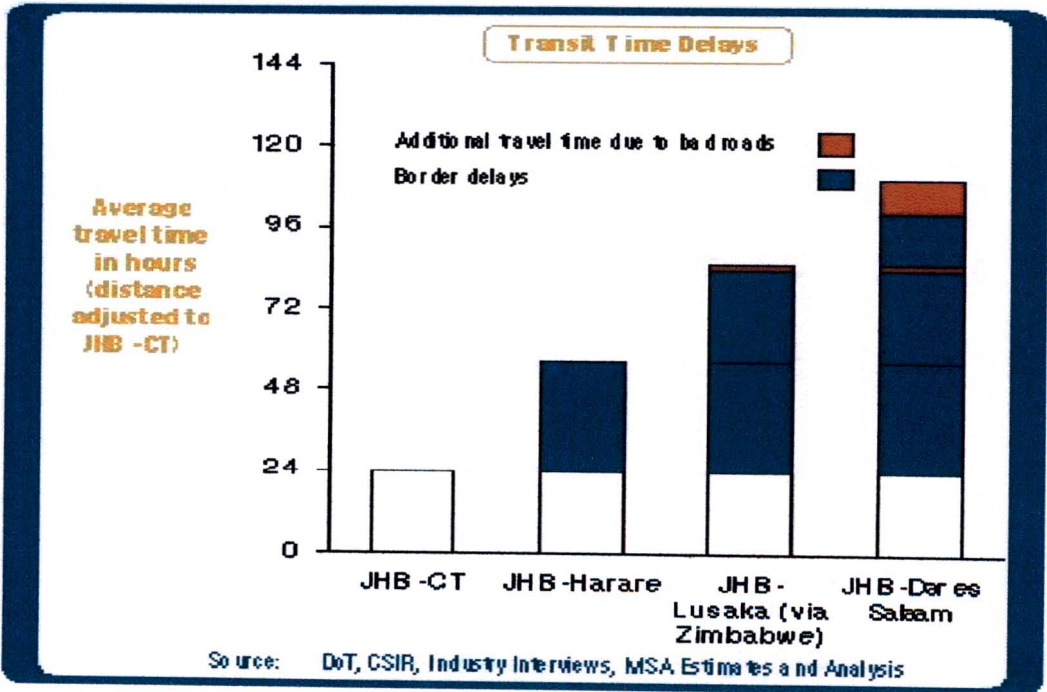
- THE FREIGHT STRATEGY AND SADC

These issues of transport’s strategy in support of economic development goals are not questions for South Africa alone. They impinge just as sharply on the Southern

African Development Community (SADC) and the Southern African region as a whole. While DOT's mandate was not to develop a strategy for the region, it is obvious that any serious national strategy must be firmly located within its regional context. Given the crucial importance of the SADC states as trading partners for South Africa, DOT actively addressed the context. Given the crucial importance of the SADC states as trading partners for South Africa, DOT actively addressed the considerable gaps in existing transport systems linking SA to SADC. The majority of actions in this arena sit outside of transport and within the immigration and customs system insofar as a major driver of cross-border transport cost premiums is delays at border posts and this is reflected in Figure 3.12.

However, as SADC moves towards greater integration and consolidation as a trading bloc in a globalized world, the need for an integrated transport strategy within the region becomes increasingly pressing. It is for this reason that certain specific choices that this strategy would need for an integrated transport strategy within the region becomes increasingly pressing. It is for this reason that certain specific choices that this strategy would have made in an ideal world have not been made, in order not to pre-empt discussion and negotiation that should properly be located within the SADC politico-economic arena (DOT, 2002).

Figure 3.12: SADC CROSS-BORDER DELAYS



In practical planning terms this means that the development of a national strategic framework within the regional context has to recognize from the outset that challenges at a national level vary considerably within SADC. In general terms, the key variable across the SADC is the current capacity of infrastructure to support future demands generated by economic and industrial development. The South African problem of excess capacity and low utilization (albeit often because capacity is in the wrong place) is in general not repeated in the rest of the SADC region.

- PERFORMANCE CHALLENGES AND STRATEGIC FOCUS**

Of the four interrelated freight transport systems in South Africa, the situational analysis identified general cargo export and import as the area requiring most improvement, as illustrated in figure 3.13.

Figure 3.13: CHALLENGES IN THE CURRENT FREIGHT SYSTEM

System	Performance	Issues
Domestic	Customers generally satisfied	System sustainability External costs
Bulk Export	World best practice	Reinvest where required
General Cargo Export and Import	Service Gaps Cost Gaps	Export competitiveness System sustainability
SADC	Cost Gaps Service Gaps	Priority of this system relative to the other systems Barriers to cross-border traffic

Source: Department of Transport, 2002

The strategy does not ignore the issues raised in other segments of freight transport, but rather focuses primarily on the issues related to international general cargo. The general vision applies equally to decisions pertaining to freight other than import or export general cargo. Accordingly SARS has an opportunity to support and augment the Department of Transport strategy for the future.

iv) THREATS

In many countries, rapid growth and surges in containerized trade are resulting in severe congestion in marine terminals. This congestion can cause inefficiencies in the processing and control of containers and is often responded to by relaxing/expediting customs inspections in an attempt to clear backlogged cargo. These circumstances create additional opportunities for unauthorized access to idle or misplaced cargo and inspire cursory examinations of shipping documentation thus providing non-compliant clients with substantial opportunities at relatively low risk.

The world's maritime trade is rising by no less than 5% each year. For the most part, this is due to the substantial increase in globalization. Never before has so much pressure been placed on ports in the world to increase cargo capacity, improve ship turnaround times and continue delivering world-class service, and no where is it more apparent than in South Africa and the graphs listed below clearly reflect this exponential growth (SAPO, 2003).

The NPA has projected an increment of 6% to 8% in container traffic for the next ten years (Campbell, 2001:16). In part this increase will be the result of the decline in an ancient form of cargo, break bulk, as more and more products are switched to containers. In as this is good news for the economy of the country there is a downside to this. There has been a historical lack of investment in the ports system over many years, which has led to inefficiency, low productivity and expensive delays.

Recent media coverage indicate that these delays have reached up to 95 hours at Durban in recent months, costing ship owners up to \$100 000 each time – which poses a threat to the expansion of South African trade and therefore the economy as a whole. To exacerbate the situation even further there are delays in routine customs inspections, which eventually adds up to a cost to business.

The following statistical graphs all sourced from the NPA - figures 3.14 to 3.25 clearly shows the volume increment of containerized imported and exported through the ports of South Africa (NPA, 2003).

Figure 3.14: TEU'S HANDLED PER PORT – 1999/2000

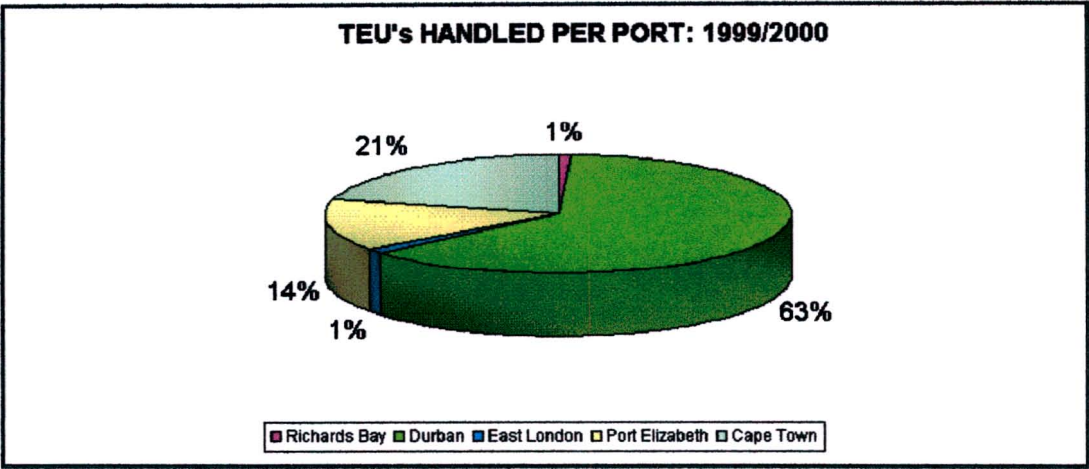


Figure: 3.15: TEU'S HANDLED PER PORT – 2000/2001

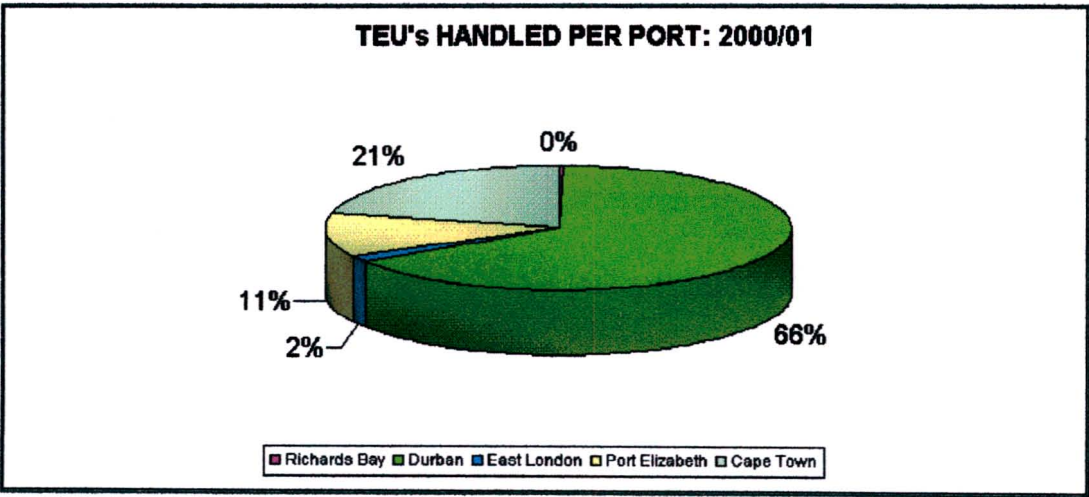


Figure 3.16: TEU'S HANDLED PER PORT – 2001/2000

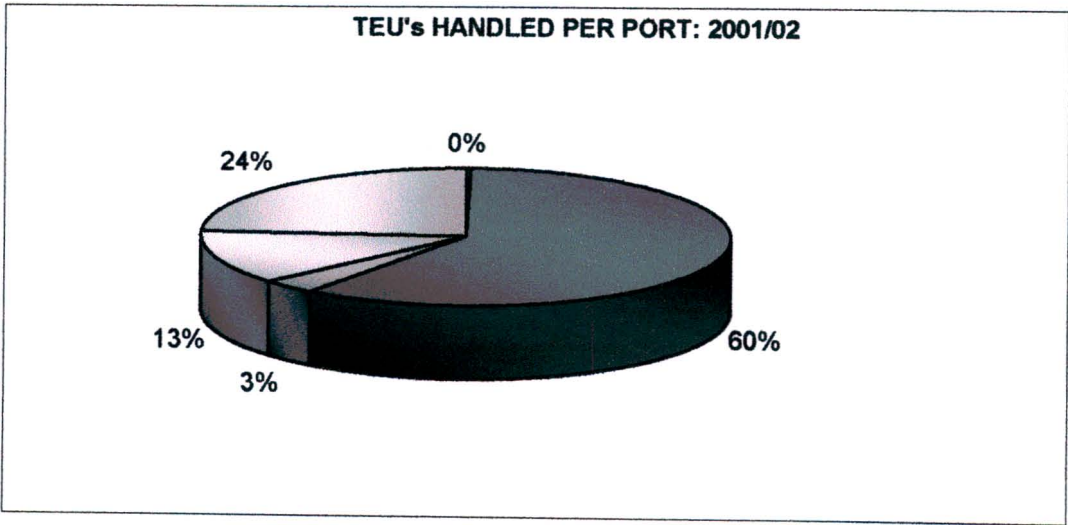


Figure 3.17: TEU'S HANDLED PER PORT –1999 / 2000

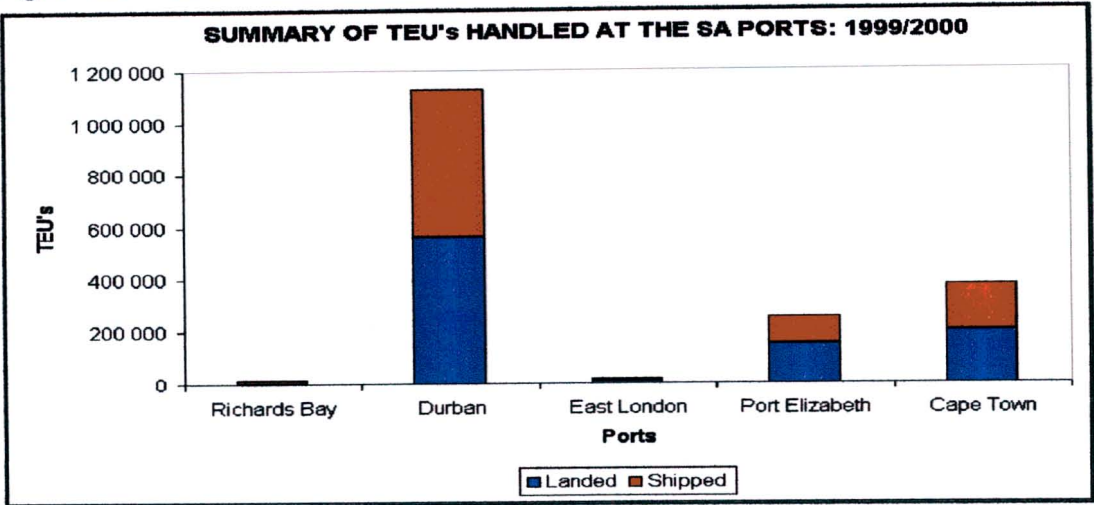


Figure 3.18: TEU'S HANDLED PER PORT – 2000 / 2001

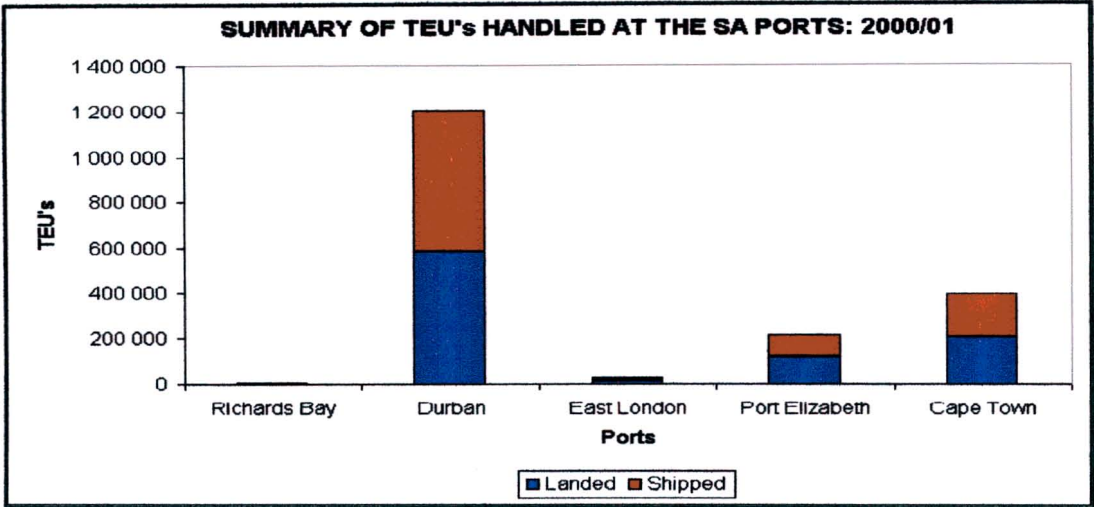


Figure 3.19: TEU'S HANDLED PER PORT – 2001 / 2002

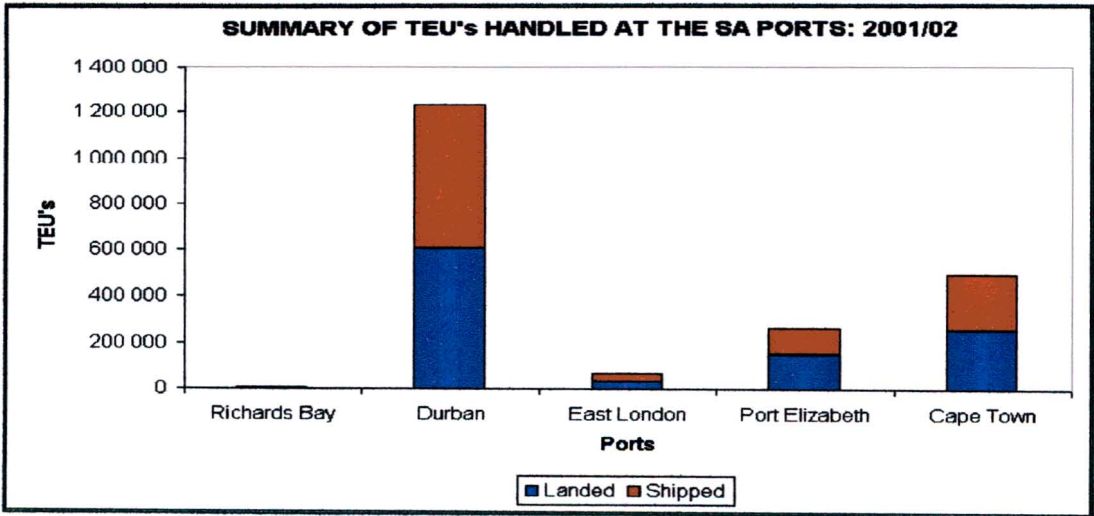


Figure: 3.20: TEU'S HANDLED PER PORT – 1999 / 2000

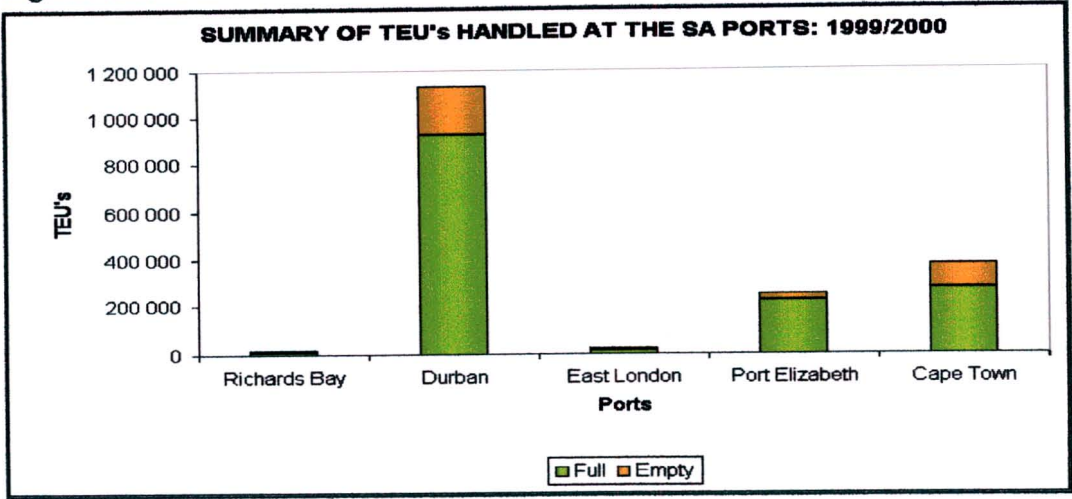


Figure 3.21: TEU'S HANDLED PER PORT – 2000 / 2001

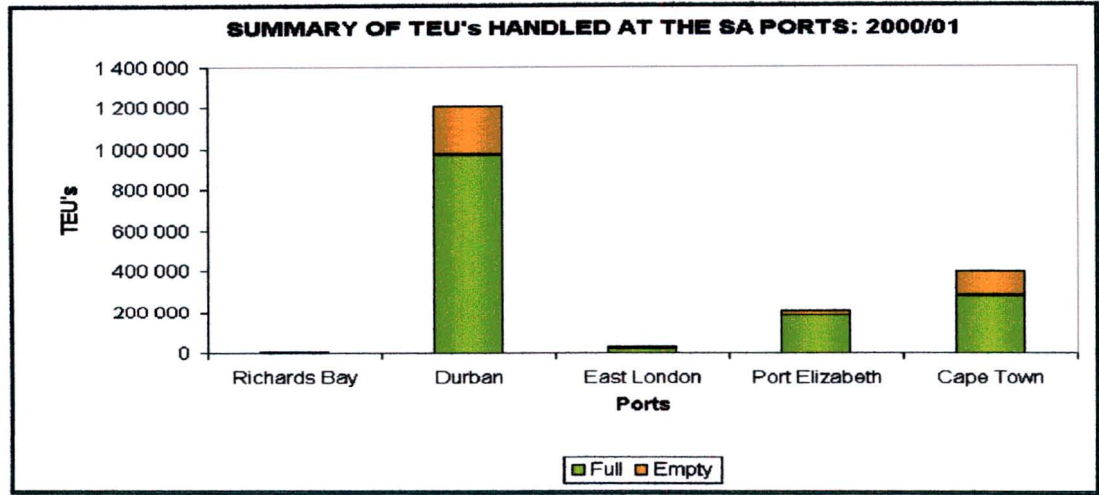


Figure 3.22: TEU'S HANDLED PER PORT – 2001 / 2002

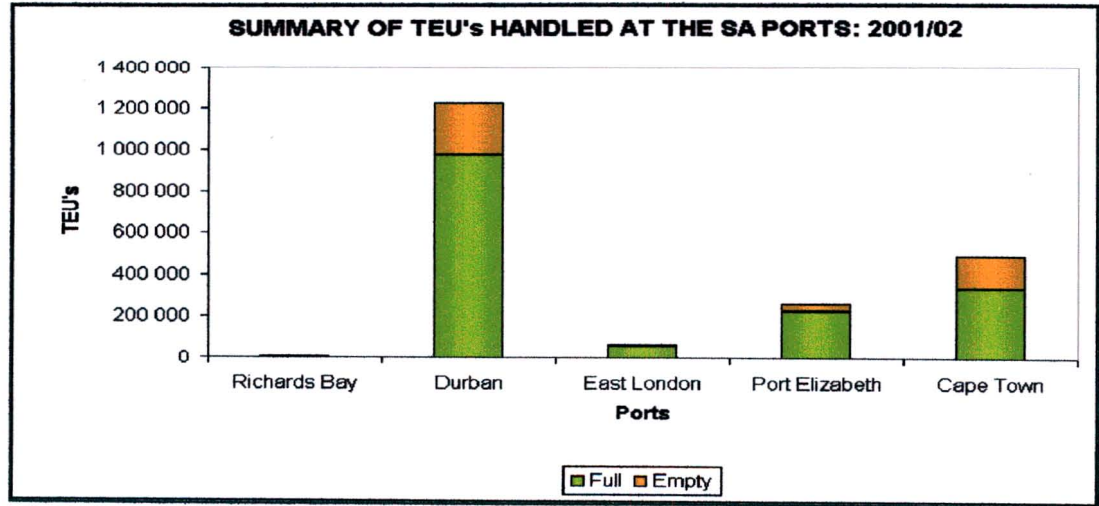


FIGURE 3.23 -SUMMARY OF CONTAINERS HANDLED AND INVOICED AT THE HARBOURS OF SOUTH AFRICA: APRIL 1999 - MARCH 2000
EXPRESSED IN TWENTY FOOT EQUIVALENT UNITS (TEU'S)

	RICHARDS BAY			DURBAN			EAST LONDON			PORT ELIZABETH			CAPE TOWN			TOTAL		
	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL
LANDED:																		
DEEPSEA	1 336	1 599	2 935	320 888	98 196	419 084	10 240	204	10 444	130 522	6 686	137 208	98 901	52 134	151 035	561 887	158 819	720 706
COASTWISE	75	0	75	3 958	4 639	8 597	1 579	22	1 601	2 230	72	2 302	10 612	2 721	13 333	18 454	7 454	25 908
TRANSHIPPED	0	0	0	114 914	19 039	133 953	1 378	114	1 492	11 180	485	11 665	25 550	7 311	32 861	153 022	26 949	179 971
TOTAL LANDED	1 411	1 599	3 010	439 760	121 874	561 634	13 197	340	13 537	143 932	7 243	151 175	135 063	62 166	197 229	733 363	193 222	926 585
SHIPPED:																		
DEEPSEA	6 337	7 966	14 303	350 670	61 727	412 397	257	5 730	5 987	62 894	23 696	86 590	108 844	28 834	137 678	529 002	127 953	656 955
COASTWISE	0	0	0	17 946	856	18 802	61	285	346	349	526	875	3 433	2 998	6 431	21 789	4 665	26 454
TRANSHIPPED	0	0	0	114 914	19 039	133 953	1 378	114	1 492	11 180	485	11 665	25 550	7 311	32 861	153 022	26 949	179 971
TOTAL SHIPPED	6 337	7 966	14 303	483 530	81 622	565 152	1 696	6 129	7 825	74 423	24 707	99 130	137 827	39 143	176 970	703 813	159 567	863 380
GRAND TOTAL	7 748	9 565	17 313	923 290	203 496	1 126 786	14 893	6 469	21 362	218 355	31 950	250 305	272 890	101 309	374 199	1 437 176	352 789	1 789 965

	Richards Bay	Durban	East London	Port Elizabeth	Cape Town	Total
Landed	3 010	561 634	13 537	151 175	197 229	926 585
Shipped	14 303	565 152	7 825	99 130	176 970	863 380
	17 313	1 126 786	21 362	250 305	374 199	1 789 965

	Richards Bay	Durban	East London	Port Elizabeth	Cape Town	Total
Full	7 748	923 290	14 893	218 355	272 890	1 437 176
Empty	9 565	203 496	6 469	31 950	101 309	352 789
	17 313	1 126 786	21 362	250 305	374 199	1 789 965

Figure 3.24:- SUMMARY OF CONTAINERS HANDLED AND INVOICED AT THE HARBOURS OF SOUTH AFRICA: APRIL 2000 - MARCH 2001
EXPRESSED IN TWENTY FOOT EQUIVALENT UNITS (TEU'S)

	RICHARDS BAY			DURBAN			EAST LONDON			PORT ELIZABETH			CAPE TOWN			TOTAL		
	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL
LANDED:																		
DEEPSEA	605	1 284	1 889	332 421	85 951	418 372	13 236	57	13 293	102 945	7 894	110 839	102 794	58 120	160 914	552 001	153 306	705 307
COASTWISE	0	0	0	4 154	7 406	11 560	1 644	16	1 660	2 216	17	2 233	13 750	929	14 679	21 764	8 368	30 132
TRANSHIPPED	0	0	0	122 493	30 154	152 647	60	0	60	4 236	30	4 266	20 760	7 084	27 844	147 549	37 268	184 817
TOTAL LANDED	605	1 284	1 889	459 068	123 511	582 579	14 940	73	15 013	109 397	7 941	117 338	137 304	66 133	203 437	721 314	198 942	920 256
SHIPPED:																		
DEEPSEA	3 721	897	4 618	370 652	81 021	451 673	4 249	8 683	12 932	69 325	19 797	89 122	116 177	38 814	154 991	564 124	149 212	713 336
COASTWISE	0	0	0	18 185	374	18 559	98	133	231	226	135	361	4 557	4 829	9 386	23 066	5 471	28 537
TRANSHIPPED	0	0	0	122 493	30 154	152 647	60	0	60	4 236	30	4 266	20 760	7 084	27 844	147 549	37 268	184 817
TOTAL SHIPPED	3 721	897	4 618	511 330	111 549	622 879	4 407	8 816	13 223	73 787	19 962	93 749	141 494	50 727	192 221	734 739	191 951	926 690
GRAND TOTAL	4 326	2 181	6 507	970 398	235 060	1 205 458	19 347	8 889	28 236	183 184	27 903	211 087	278 798	116 860	395 658	1 456 053	390 893	1 846 946

	Richards Bay	Durban	East London	Port Elizabeth	Cape Town	Total
Landed	1 889	582 579	15 013	117 338	203 437	920 256
Shipped	4 618	622 879	13 223	93 749	192 221	926 690
	6 507	1 205 458	28 236	211 087	395 658	1 846 946

	Richards Bay	Durban	East London	Port Elizabeth	Cape Town	Total
Full	4 326	970 398	19 347	183 184	278 798	1 456 053
Empty	2 181	235 060	8 889	27 903	116 860	390 893
	6 507	1 205 458	28 236	211 087	395 658	1 846 946

FIGURE 3.25: SUMMARY OF CONTAINERS HANDLED AND INVOICED AT THE HARBOURS OF SOUTH AFRICA: APRIL 2001 - MARCH 2002

EXPRESSED IN TWENTY FOOT EQUIVALENT UNITS (TEU'S)																		
	RICHARDS BAY			DURBAN			EAST LONDON			PORT ELIZABETH			CAPE TOWN			TOTAL		
	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL	FULL	EMPTY	TOTAL
LANDED:																		
DEEPSEA	714	1 416	2 130	330 187	116 105	446 292	28 675	223	28 898	108 698	16 706	125 404	97 246	84 884	182 130	565 520	219 334	784 854
COASTWISE	0	41	41	6 418	6 285	12 703	1 299	3	1 302	1 465	14	1 479	13 505	803	14 308	22 687	7 146	29 833
TRANSHIPPED	0	0	0	111 888	33 475	145 363	2 386	359	2 745	21 948	3 387	25 335	37 361	19 267	56 628	173 583	56 488	230 071
TOTAL LANDED	714	1 457	2 171	448 493	155 865	604 358	32 360	585	32 945	132 111	20 107	152 218	148 112	104 954	253 066	761 790	282 968	1 044 758
SHIPPED:																		
DEEPSEA	2 819	61	2 880	394 843	64 896	459 739	28 406	4 519	32 925	72 869	10 625	83 494	138 962	35 319	174 281	637 899	115 420	753 319
COASTWISE	0	32	32	18 653	380	19 033	52	7	59	1 576	722	2 298	7 443	4 618	12 061	27 724	5 759	33 483
TRANSHIPPED	0	0	0	111 888	33 475	145 363	2 386	359	2 745	19 789	4 158	23 947	37 361	19 267	56 628	171 424	57 259	228 683
TOTAL SHIPPED	2 819	93	2 912	525 384	98 751	624 135	30 844	4 885	35 729	94 234	15 505	109 739	183 766	59 204	242 970	837 047	178 438	1 015 485
GRAND TOTAL	3 533	1 550	5 083	973 877	254 616	1 228 493	63 204	5 470	68 674	226 345	35 612	261 957	331 878	164 158	496 036	1 598 837	461 406	2 060 243

	Richards Bay	Durban	East London	Port Elizabeth	Cape Town	Total
Landed	2 171	604 358	32 945	152 218	253 066	1 044 758
Shipped	2 912	624 135	35 729	109 739	242 970	1 015 485
	5 083	1 228 493	68 674	261 957	496 036	2 060 243

	Richards Bay	Durban	East London	Port Elizabeth	Cape Town	Total
Full	3 533	973 877	63 204	226 345	331 878	1 598 837
Empty	1 550	254 616	5 470	35 612	164 158	461 406
	5 083	1 228 493	68 674	261 957	496 036	2 060 243

The roles of ports have evolved and ports are no longer a passive node in the logistics chain. There is increased pressure on ports to play a growth role in the logistics chain and to develop into logistics platforms with emphasis on value-adding services (CE0, 2002:5). Competition between ports has increased and shippers must be able to put any product anywhere in the world at the right time. Ports are evolving to become third generation ports, which places a lot of emphasis on cargo and information distribution and logistic activities, through utilizing technology, rather than just being first or second generation ports, where the focus is purely on just providing cargo handling services. From a logistics perspective, the challenge is for ports to explore its role in activities such as development of free trade zones; providing logistics infrastructure, which may include provision for logistics centers as part of land use when port planning takes place; providing robust e-commerce based systems to enable port users to communicate and exchange information (CE0, 2002:5).

Shipping lines have further experienced costs pressures as a result of trade expansion, which has brought about increased focus on controlling the integrated transport chain and offering comprehensive logistics packages. From a world shipping perspective, it is important to take cognizance of the following:

- Container shipping has seen constant downward pressure on rates for the past years;
- Container vessel sizes are growing;
- Mergers and alliances between shipping lines within the container market is taking place;
- Ship operators are increasingly getting involved in the logistics chain, in competition with forwarders;
- The container trade is driven by east-west highway, with north-south subsidiary trades. In South African container trade growth has nonetheless experienced average growth of 5-7% over the past few years;
- It is not foreseen that South African ports will develop into mega hub ports such as the Singapore's of the world, it is anticipated that the largest vessels that will call along South African coast will be 4500 TEU vessels over the next 10-20 years;
- The cargo owner still decides the port of call from a total costs perspective.

The aforementioned illustrates the main challenges of port authorities. The challenges of Africa are not different to port authorities of the world, but the pressing challenges of provision and maintaining port infrastructure and obtaining private sector investment in port operations, the increased importance of the environmental pressures, safe and secure ports and efficient cargo handling operations.

Some transport analysts have identified South Africa's ports as the 'weakest link' in the overall logistic chain. There have been ongoing complaints about deep-seated lack of competitiveness resulting in high costs and slow turnaround at key harbours. Indeed there is overwhelming consensus that the extensive public investment in port infrastructure does not provide an adequate return to port users and taxpayers. Some observers even argue that the problems at the ports could jeopardize South Africa's emerging position as a trading nation – in fact around half of domestic activity is now traded. Coupled to these problems customs has also exacerbated problems by delays inspections and examinations due to the lack of non-intrusive inspection devices.

These aforementioned elements of the SWOT analysis provide an assessment of the position of SARS at a point in time and as such, contribute to the process of strategic analysis. However, they also point to the future options available to SARS (strategic choice) and suggest some of the issues that might need to be addressed in order to develop the new strategy (strategy implementation).

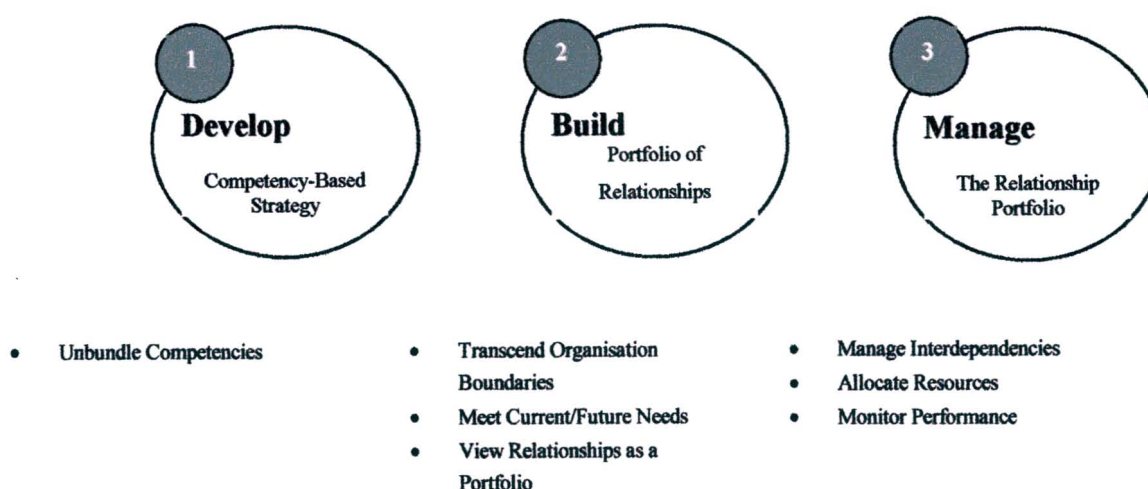
3.8.2 CORE COMPETENCIES

To grow their organization in the long term SARS needs to develop, protect and leverage their core competencies and consider outsourcing activities that do not confer a competitive advantage. But identifying which resources and capabilities to preserve and invest in, and which activities to outsource, requires careful consideration and planning as the strategic implications are significant.

These are turbulent times for public sector management. Across the globe and at every level of government, executives are faced with an unprecedented amount of upheaval to their established routines (Deloitte, 2002:1).

In the new model of partnering government focuses its strategy around core competencies (stage 1), builds the portfolio of relationships needed to create viable, complete value chains (stage 2) and manages its portfolio of relationships in order to innovate and stay flexible in the face of changing customer demands (stage 3). These three elements are shown in the figure 3.26.

Figure 3.26: THE RELATIONSHIP PORTFOLIO APPROACH



Source: Deloitte Research, 2002

Before governments began partnering more with the private sector almost all service delivery was under their exclusive domain. Now governments recognize that there are some functions that either they cannot nurture sufficiently or that are no longer essential to their role as public service providers. This opens the door to extensive private sector involvement. Government executives most commonly express this sentiment as ‘wanting to focus on our core competencies’ or another was according to Roger Fisher, manager of the Australia’s Department of Finance and Administration: *“Our philosophy has been to partner when we can identify an area of our business that someone else can do better than we can”* (Deloitte,2002). This switch to a ‘competencies’ focus marks to powerful change for governments. When the organization starts to think of itself in terms of competencies, managers can begin to understand how they should be used, not only throughout the agency, but also across organizational boundaries. The result is a strategy based on world-class competencies-all with a clear understanding of what the organization can do itself. And equally important what it cannot do and must partner to provide.

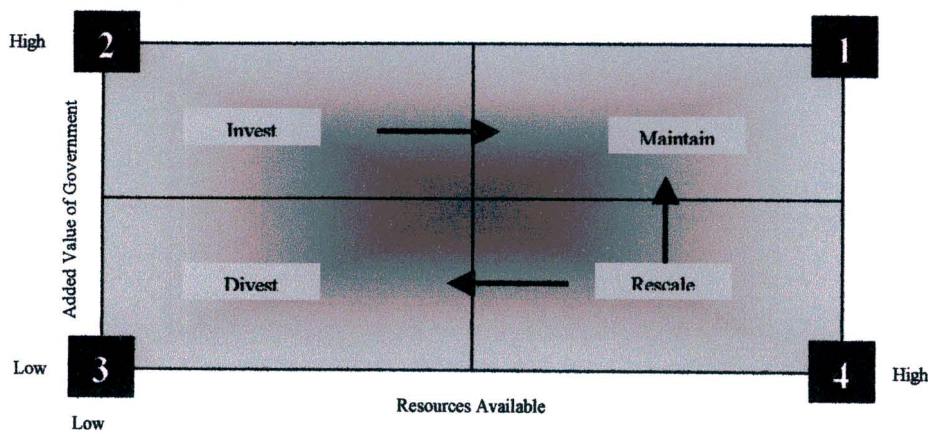
• **UNBUNDLE COMPETENCIES**

Mr Fisher’s perspective, one shared by many executives around the world, means that governments are beginning to think of themselves as organizations with unbundled competencies, that is, specific strengths and weaknesses that determine where they should place themselves on service delivery value chains and where to reconfigure themselves with partners to improve service delivery.

Defining core competencies and deciding which should be kept in house and which should be removed to the private sector, is a decision unique to different governments (see figure 3.27), but it allows them all to focus partnering priorities and resource investment most efficiently. It will also afford them more flexibility in adjusting investment according to future resource availability.

Just as government have recently adopted an enterprise view of their customers, so too must they be able to take an enterprise view of their relationship partners. This will require governments to understand their own competencies, degree of dependence and tolerance for risk. It will also require them to develop a set of business rules that will allow them to trade off benefits against risk.

FIGURE 3.27: DETERMINING CORE COMPETENCIES AND INVESTMENT PRIORITIES



Source: Deloitte Research, 2002

Based on their view of the public sector's role in service delivery and influenced by their unique mix capital, human resources and technology, individual governments will determine what constitutes their core- and non-core competencies. This decision is the key starting point for governments to model how they will approach future partnering and investment.

- i). Core competencies for which they currently have sufficient resources to support should be maintained;
- ii). If resources are not available, governments should adjust funding priorities to fuel the competencies they want to keep in-house;
- iii). Non-core competencies with low resource availability are the best candidates to divest, transitioning them to outsourcing partners;
- iv). Of are still being applied (inefficiently) to non-core competencies, governments will need to decide if they want to divest the competencies or, hedging that the competencies should be kept in-house (maintained) in the future, reclassify them as core and rescale investment accordingly.

3.9 CONCLUSION

Through the use of various models such as the PEST and SWOT analysis that were presented in chapter 2 and applied in chapter 3, and it is prudent to say that the analysis indicates that the more attention needs to be focused on the following areas and these are highlighted below.

- Within the trade environment there seems to be:
 - Paradigm shift in global trade with regard to the digital economy, integrated supply chains and globalization;
 - Massive growth in trade volumes;
 - Security and enforcement challenges;
 - Enforcement is a global imperative with a rise of transnational crime and anti-terrorism as an emerging priority;
 - Risk management is a global best practice;
 - New international partnerships required;

- Convergent response by trade and government has accelerated spending on modernization and trade management, trade facilitation and compliance partnerships, there is move towards commercialization of core processes and e-services response are required to remain competitive.
- To sum up some of the emerging trends within the customs modernization environment these have been encapsulated within figure 3.28.

Figure 3.28: TRENDS OF CUSTOMS MODERNIZATION

The last ten years	The next ten years
<i>Business Practices</i>	
<ul style="list-style-type: none"> • International conventions to harmonize and simplify trade • Regional customs unions to compete • Globalization of supply chains, of businesses, of capital, of markets • Growing importance of emerging markets and small businesses • Trans-national crime • Risk management regimes, voluntary informed compliance and audits 	<ul style="list-style-type: none"> • Growing role of postal and air courier modes in cargo mix • Increasing value of digital goods: data is the cargo – software, intellectual property, media, pornography • Public accountability for performance metrics: compliance, speed, cost • Cyber-crime • Cooperative programs in international law enforcement
<i>Technology and Automation</i>	
<ul style="list-style-type: none"> • Global supply chain automation: ERP, logistics, intermodal all integrated • Customs automation, EDI regimes • e-business and digital economies • Web channel communications • Business intelligence from data warehouses and data mining technologies and selectivity programs 	<ul style="list-style-type: none"> • e-markets, Internet trade facilitation • Public-private partnerships and JVs • Enterprise integration of government financial and trade data and processes • Pervasive, wireless, embedded computing: data at your fingertips, data in the cargo • Exploitation of CRM technologies to raise customer service, responsiveness

Source: Barton, 2002

- Some of the technology drivers for Customs are listed below:
 - Global integration of logistics, supply chains, and business systems are using “Intelligent cargo” systems and Customs is increasingly using a visible control point;
 - Information access via pervasive devices in a global cellular wireless infrastructure is being explored and accordingly Customs should exploit secure access technologies to drive productivity and mission effectiveness;
 - Intelligent infrastructure will deliver value through the utility services model and Customs systems could be further enhanced by web standards;
 - IT Value migrating to service delivery models based on software assets should be explored wherein Customs should adopt new delivery models;
 - Competitive advantage optimized by powerful analytics and knowledge management for Customs to stay ahead of advanced technology to optimize its enforcement posture.

Against the backdrop of the aforementioned factors chapter 4 explores and evaluates SARS present strategy.

CHAPTER 4 – EVALUATION OF SARS PRESENT STRATEGY

4.1 INTRODUCTION

Government leaders face a wide spectrum of strategic pressures. A balance must exist between long-term economic and social development, while filling the business community and citizens needs. Seamless and more efficient operational systems and services are demanded along with supporting and enhanced security features. There are operational pressures to maintain public assets and infrastructure efficiently however this must co-exist with reduced human resource assistance and the heightened demands for convenient and quick services. As technological possibilities expand and constituent needs grow in complexity, governments may sense the need for more significant process and organizational transformation. This third wave of change will bring about a new kind of government model – one that relies on novel combinations of public and private sector resources to become more collaborative, more adaptive and more virtual. During this stage of evolution, governments will begin to establish policies, management structures and private sector partnerships to facilitate technological service delivery methods. This chapter evaluates the data gathered in the previous stage of study and establishes the “gap” in SARS present strategies.

4.2 BUSINESS CHALLENGES WITHIN THE CUSTOMS ENVIRONMENT

From the previous data presented in the study, figure 4.1 encapsulates the fundamental business challenges of SARS - Customs Division.

Figure 4.1: BUSINESS CHALLENGES

- How can we close the gap between increasing trade and available customs resources?
- How can we simplify our processes?
- What services do the trading community value?
- How can we facilitate economic development?
- What protections are needed for public health, safety, welfare, and our environment?

- Where are our greatest risks?
- What new programs are needed to combat them?
- How can I cooperate with other governments against global threats?
- How do we enforce regulations in a digital economy?
- How do we attract and keep skilled professional staff?
- How should I organize and deploy officers to be most effective?
- How do we modernize IT cost-effectively and without disruptions of service?

4.3 IMPACT OF INTERNATIONAL POLICIES ON SARS

Following the September 11 attacks, in New York, it has become imperative that governments and the international business community make progress in improving the safety and security of the maritime transportation system. The CSI is a programme through which the US Customs Service (USCS) establishes agreements with other customs administrations. The core objectives of the initiative are the following:

- To establish security criteria to identify high-risk containers;
- To pre-screen containers before they depart country of export;
- Utilize technology to pre-screen high-risk containers;
- Develop and utilize smart and tamperproof containers.

The initial phase of the CSI has seen the USCS identify 20 foreign ports, which ship the highest volume of containers direct to US shores. Of these no less than 13 ports have signed agreements or have expressions of interest to some degree on bilateral cooperation with the USCS. At certain of these Ports, US customs officers work in conjunction with the host authorities.

• RECENT INTERNATIONAL DEVELOPMENTS

In June 2002, under the Chairmanship of Pravin Gordhan, the World Customs Organization (WCO) adopted a resolution on supply chain security and trade facilitation. The resolution spells out the organization's role of coordinating a global customs response. To give effect to the resolution, the WCO established a Task Force

on 6 September 2002, to develop a multi-faceted approach to protect international trade from the threat of terrorism.

Specific areas of work were identified, namely:

- The need for the WCO Data Model to include key data elements necessary for customs to identify high-risk cargo;
- The need for a legal basis for collection, transmission, sharing and confidentiality of data;
- The review of the WCO's 1972 Convention on containers;
- To develop guidelines for customs to encourage voluntary cooperation on security issues with business;
- A needs assessment tool to assist individual customs administrations to assess their developmental needs towards a secure trading environment;
- The creation of a WCO databank of technical inspection and detection devices.

• **IMPLICATIONS FOR SARS**

The impact of CSI on Customs implies not only an emphasis on interventions on export consignments to the USA. There exist several other issues, which imply a proactive response by SARS to the CSI, namely:

- The United States is South Africa's largest export trading partner, and several exporters are beneficiaries under the AGOA arrangement;
- Current negotiation of a free trade agreement (FTA) with the United States;
- South African ports serve as a major 'hub' for sub-Saharan African countries; and
- South Africa's prominent position and influence at the WCO.

The CSI also has a profound effect on customs operational planning and developmental approach. Although many of the key issues have been addressed within the organization's initial transformation through its SIYAKHA programme, much work and energy is still required to achieve the desired level of capability.

• **IMPLICATIONS FOR SOUTH AFRICAN SUPPLY CHAIN OPERATORS**

For trade, the knock on effect of the USCS 24 hour ruling on advance manifest information has enormous implications for the global supply chain. These are characterized as follows:

- A fundamental change in the way businesses trade with one another;
- Potential cost increases for RSA and Southern African exporters, e.g. higher insurance costs, longer cash-to-cash cycles, lost revenue due to stock-outs or missed promotions, additional inventory, slowing down or shutting down production lines, to name a few;
- Adaptation of existing practices, procedures and systems to meet customs' advance export information needs;
- Aside from this it is fair to state that non-participation by South Africa in the CSI may well negatively affect the overall long-term competitiveness of local exporter's in foreign markets, not to mention potential trade agreements in the future.

The essence of supply chain security rests upon the following –

1.	Advance reporting of export consignment information	To enable identification and targeting of high risk containers
2.	Risk management capability	To allow pre-screening of containers before they depart country of export
3.	Using technology to pre-screen high risk consignments	By deployment of scanning devices to minimize delays, tampering and spoilage should containers have to be 'physically' inspected?
4.	Developing and using smart and tamperproof containers	To enhance the 'physical' security of containerized goods throughout the lifecycle of their conveyance USING ELECTRONIC SEALS TRANSPONDERS

- **STAKEHOLDERS MEETING**

SARS approach toward the WCO resolution and the Container Security Initiative was explained on the 22nd November 2002 to stakeholders and can be summarized as follows:

- i). The SARS approach on container security encompasses two issues. In the first case, CSI would essentially constitute a 'bi-lateral' agreement between the United States and South Africa, based upon the four key elements as specified by the US Customs Service. However, any sizeable investment towards a single bilateral agreement would be considered irrational if there exists no other latent benefits for South Africa as a whole. SARS understands the impact, which the CSI has on the export business sector and is moreover conscious of the need to expedite the means to facilitate this leg of trade to ensure continuity of trade with the US and other major destinations in the world.
- ii). The second issue is of a more crucial nature for South Africa's national security and the prosperity of the local business environment. SARS approach in this regard seeks to extend the effort and benefits, which can be attained through future CSI participation to the local environment. In this regard security and control mechanisms at our troublesome land borders and transit areas can be addressed simultaneously.

It is intrinsically through cooperation and partnerships that this dual approach can be achieved and, in so doing; strengthen the awareness and understanding of our respective needs in the process.

- **ANALYSIS OF CURRENT CUSTOMS ENVIRONMENT**

SARS has already embarked upon a study of its current environment in terms of security, risk and operational environment. The output of this exercise has resulted in a determination of what needs to be put in place to meet the criteria for both CSI accession, as well as a more secure customs environment, nationally. Traditionally,

the export leg of supply chain activity has not drawn much focus and intervention by Customs. The introduction of the WCO resolution on supply chain security now causes all administrations worldwide to re-adjust their focus to include all modes of customs activity.

CSI implies the introduction of the ‘virtual border’ concept, which many more countries in the future may adopt to improve their risk capability, and ultimately, improvements in service delivery through slicker processes at time of importation.

- **SECTOR - BASED CONSULTATIONS WITH SUPPLY CHAIN STAKEHOLDERS**

This approach was initiated at the Consultative Forum on Cargo Security held in Pretoria during November 2002. While SARS will actively drive the process, they none-the-less have adopted a ‘transparent’ approach towards consultation with business. The effect of CSI transcends the scope of traditional business boundaries and activities, and for the first time it will need to address areas foreign to them in the past.

With or without SARS approach, the CSI affects the business community directly. The SA business community’s foreign US counterparts and principals have been made accountable to the US Customs Service for ‘your’ actions, and it is therefore in ‘your’ interest not to be found wanting.

- **IDENTIFY APPROPRIATE SOLUTIONS**

SARS has been busy with organizational transformation over the last few years, and at the same time has spared no effort in enhancing its systems and enforcement capability.

As part of the CSI programme SARS is looking specifically at technology to assist customs officers in their tasks that will ultimately reduce processing times and improve overall efficiency. SARS have also stressed that a focus on technology alone

will gain Customs nothing if they do not address capacity and training issues. SARS therefore prefer to consider a ‘solution’ as the overall ‘package’ that can deliver and encompass both human and technology resources. Aside from this there also exists a technology opportunity to fulfill the tracking of consignments between the various supply chain operators, throughout the lifecycle of an export consignment.

- **CONSULTATION WITH SOUTHERN AFRICAN NEIGHBOURS**

The WCO, under leadership of Pravin Gordhan, has placed a premium on assistance and exchange of ‘know-how’ with less developed countries. This is manifest profoundly within the text of the resolution on “Security And Facilitation of the International Supply Chain”.

Likewise, South Africa has a regional responsibility to ensure that the resolution is applied uniformly amongst its neighbours thus ensuring parity for business throughout the Southern African Development Community.

- **CONSENSUS OF THE WORKSHOP**

The workshop acknowledged that:

- Recent international border security initiatives impact on the operations of all stakeholders and necessitate a fundamental review of their operations;
- South Africa serves as an economic hub for the international movement of goods within and from the region; and
- Co-operation between stakeholders is essential to enhance South Africa and the region’s competitive advantage in promoting trade.

The workshop agreed that:

- There is a need for a coordinated public – private sector response to customs security initiatives;

- South Africa should respond pro-actively to customs security initiatives with a view to retaining and strengthening its export competitive advantage;
- All stakeholders in the supply chain should prepare for the implementation of the security – related measures;
- SARS and other governmental agencies as well as the trade commit themselves to review their respective export procedures to support customs - security initiatives and to facilitate trade; and

- **PREPARATORY STEPS IN APPROACH TO SUPPLY CHAIN SECURITY**

In SARS quest to *“Guarantee the integrity of a container”* is evaluating the following options:

- Determining the form / type of seals for containers that will ensure their ‘safety’ throughout the supply chain;
- **Pursuing the acquisition of x-ray scanners for containerized cargo and it has obtained funding of approximately R220 million in the medium term expenditure framework for such acquisition as it intends acquiring, deploying and managing such facilities;**
- Advance information through the greater use of EDI;
- Advance information will enable the customs risk process;
- Greater focus on the accreditation of supply chain operators with Customs; and
- Review of the current export practice and the process itself for example ensure uniform reporting of information to Customs [for example, container number to be available on export bill of entry].

4.4 EVALUATION OF PRESENT STRATEGY

From the data presented in this research project it would appear that SARS is pursuing a growth-orientated strategy in that it sees itself as having several environmental opportunities and numerous strengths. SARS seems to following an internal

development strategy where strategies are developed by building up an organization's own resource base and competences. This strategy will be tested in terms of success criteria; suitability, acceptability and feasibility.

4.5 SUCCESS CRITERIA

The success criteria are used to evaluate strategies as a part of a process of strategy selection.

- Suitability is a broad criterion concerned with whether a strategy addresses the circumstances in which an organization is operating – the strategic position (Johnson & Scholes, 2002) and the application of such analysis is presented below:

- **LIFE CYCLE ANALYSIS:**

The use of technology for inspection of containerized cargo is in a growth phase globally and therefore the pursuit of a growth strategy does seem logical.

- **POSITIONING:**

SARS market positioning is poised to grow however their resources are directly linked to that of annual budgets and the ability of the organization to maintain their technology enhanced outlook into the future is questioned. Even if SARS is able to initially make the capital investment and acquire the x-ray scanners, the question is will it have the necessary resources going forward to maintain and up-grade technology as and when it becomes necessary? Further SARS core competencies is to collect revenue to fund government services and not in the management of x-ray scanning facilities.

- **PORTFOLIO ANALYSIS:**

The current strategy does support the movement of the organization towards becoming a market leader. The acquisition of x-ray scanning

technology for containerized cargo will move South Africa as a country into a ‘dominant emerging country’.

- **BUSINESS PROFILE ANALYSIS:**

As shown in figure 4.2, the present strategy has enhanced the business profile.

Figure 4.2

<u>Key Features</u>	<u>Strategic Importance</u>
Compliance in Market place	Customs modernization and visible policing as a Current strategy will positively increase compliancy in market place.
Capital intensity	Is very reliant on capital resources from government and is not a revenue generating organization. Future operational effectiveness of the x-ray scanning facilities is dependent on the health of the economy and government’s ability to fund it.
Real market growth	Market growth is relatively rapid and leaves room for non-compliancy due to staff shortages and lack technology
Strategic intensity	A very aggressive in terms of strategic importance is being pursued both international and domestically for such non-intrusive examination facilities.

- **VALUE CHAIN ANALYSIS:**

SARS as a tax administration has developed competencies in processing of information that lends to the development of certain unique features that enhances customer value. However, the

acquisition, managing, up grading of technology and maintenance of x-ray scanning facilities is not a core competence of SARS. SARS needs access to such facilities to determine compliant and non - compliant trade.

From the above analysis, one can conclude that the pursued strategy is suitable.

- Acceptability is concerned with the expected performance outcomes of a strategy (Johnson & Scholes, 2002).

The operating budget of SARS is entirely dependant on Government. Should SARS pursue its strategy of acquiring and managing the x-ray scanners with the funds it has obtained this strategy would be feasible in the short term. The short-term gains would be the accolades from the international community and the domestic stakeholders. However in the medium to long term the cost of maintenance would be an onerous burden to SARS because of funding constraints. For the strategy to be feasible SARS would have to generate revenue from the x-ray scanner operations as is presently done in Ghana and France, in this way the revenue generated is used to off-set costs of maintenance.

The funding constraints show us that the pursuant strategy is unacceptable.

- Feasibility is concerned with whether an organization has the resources and competencies to deliver a strategy (Johnson & Scholes, 2002).

This organization suffers from a ‘working capital’ deficiency. Some of its previous strategic alliances were formed not only to boost and assist them in their modernization problem. Donor capital is not guaranteed as funding may flow to other countries in Africa. The continued pressure on capital resources makes this strategy unfeasible and further this uncertainty of whether it would be available in the future. Further SARS as an organization does not have the in-house expertise to manage x-ray scanning facilities such as engineers and other related maintenance staff.

4.6 GAP ANALYSIS

In assessing strategies for the future, executives are usually concerned with understanding the incentive to change – in other words to extent to which current strategies (if unchanged) would fall short of meeting the organization's aspirations and/or obligations and a GAP analysis is one approach that can be used to assess such change (Ambrosini, 1998:219).

- What is the organization's current position?

SARS is recognized as a leader in transformation and customs modernization.

- What is their vision?

To provide an excellent service in a transparent environment while ensuring optimum collection of revenue.

- How will they get there?

This will be shown in the recommended grand strategy.

The gap analysis clearly shows a gap between SARS current market position and its proposed vision. The results of the environment analysis plotted on the SWOT Analysis Diagram, which positioned SARS in cell 4, and this supports a defensive strategy. This is actually a paradox, while SARS current market position supports a defensive strategy; its perceived strategy has been an aggressive one. The organization's lack of financial resources and other competencies means that it cannot exploit the opportunities in the market place, hence resulting in this gap between the organization's current strategy and its proposed vision.

4.7 CONCLUSION

It is clear that the customs industry is going through a growth phase and therefore understandable that SARS's competitive position in this industry would determine its future strategies.

Armed with this outcome, one is able to focus on specific strategic options available to the organization with a greater degree of certainty. The Grand Strategy Cluster model positions the organization in cell 2, which is a rapid growth market, in a weak competitive position. The strategic options available to SARS are accordingly explored in chapter 5.

CHAPTER 5 - RECOMMENDATIONS

5.1 INTRODUCTION

Whereas the previous chapter provided a holistic overview of the case study, this chapter deals with the strategic options available to an organization like SARS. Each strategic option is discussed below and recommendations are given to as how they could be carried out. The strategies will then be evaluated according to their suitability, acceptability and feasibility to determine the most appropriate option.

In terms of the prevailing environmental conditions and the available resource capabilities of SARS the following strategic options are available to SARS in term of the grand strategy selection matrix. - *Reformulation of concentrated growth.*

5.2 OUTSOURCING

As the arsenal of outsourcing grows, some public-sector executives are learning to construct new operating models that position value and risk in advantageous ways. These deals can involve creative financing, such as joint ventures and private finance initiatives and they can extend public sector activities into whole new arenas. These ventures don't just capture value, they stimulate growth. Government executives use two forms of business transformation outsourcing to redesign the way the public sector works: they buy services rather than capacity and they transform the value equation (Accenture: 2002:22).

For this paper outsourcing has been defined as: "*Contracting with a private sector firm to take responsibility for a function or process for which the government remains accountable.*" This definition excludes short-term project work and stops short of privatization, where the government no longer has accountability for the function and figure 5.1 sets the parameters.

Governments have been outsourcing for many years, and this activity historically has encompassed processes such as maintenance services, roads and bridge construction. However over they past 10 years public sector outsourcing has evolved to include

functions that are more complex and are much more central to public administration, such as information technology, support services and delivery of services to citizens.

Figure 5.1: DEFINING OUTSOURCING

Privatization	Entire government organization moves to private sector	Government employees privatized with the organization. Government no longer accountable for the activity
Private finance initiative	Public and private resources pooled to develop, operate and own public facility and service	Employers may or may not be affected. OUTSOURCING
Transferring public services to a private firm	Private-sector firm contracts to provide services previously provided by the government	Employees may transfer to the outsource vendor or be redeployed in government
Sourcing new services	Government contracts for services not previously done by government	Current positions not affected
Staff augmentation	Government buys services that don't comprise an entire function or process	Employees not affected

Source: Accenture 2002:4

5.2.1 BUY SERVICES

As part of their transformational efforts, some government executives buy services rather than buying capacity. These executives:

- Change their own mindset from controlling functions to buying services;
- Shift fixed assets to private firms so government costs can come from recurring funds, not allocated capital;
- Track performance metrics for every service, whether it is performed in-house or by an outsource provider.

This approach exposes government services to free market forces. The result? A process that stimulates both innovation and cost efficiency. Australia's federal government innovates by institutionalizing choice. It allows government departments and agencies to choose any supplier – not necessarily the in-house organization. They

also regularly measure the government's unit cost for producing its outputs through pricing reviews and post this information, along with benchmark data for everyone to see. An Australian executive elaborates, "When services were in-house, costs were not explicit (Accenture, 2002). When you outsource, you get a market signal about the true costs. It revealed to us that government had been over-investing for generations in areas that were marginal." As a result the size of the government workforce has been reduced by about one third over five years.

Instead of building and owning expensive infrastructure, the UK Ministry of Defence buys services in order to limit its investment in costly underutilized assets. Executives now buy flight simulator training, ship repair and equipment transport services from the private sector on a 'per transaction' basis (Accenture, 2002).

To use this approach of buying services effectively one has to:

- Use flexible procurement process to invite innovative solutions;
- Craft deals with clear output and end-of-contract requirements;
- Relentlessly measure performance;
- Use 'take or pay' pricing to encourage investment.

While many government agencies outsource some processes, executives who are transforming their organizations by buying services rather than capacity are set apart because they use this approach broadly and strategically. They are not crafting deals; they're orchestrating an active environment of deal making that stimulates healthy competition and continuous improvement.

5.2.2 TRANSFORM THE VALUE EQUATION

When a government organization needs a radical improvement in performance, some executives transform the value equation. They do this in three ways:

- They outsource critical processes to transform the organizations;
- They create new business models;
- They drive economic development.

Each of these approaches is described in more detail in the sections that follow below:

- **TRANSFORM ORGANIZATIONS**

To radically change an organization's performance, some executives outsource functions and processes that are essential to the mission in the long-term, strategic commitment.

For example, National Savings in the United Kingdom helps finance government programs by selling savings products in competition with private financial services firms. Through a private finance initiative – a project financing structure that brings private investment into public services - National Savings outsourced the whole of its operations, including customer service, finance, IT, procurement and HR and 90 percent of its employees moved to a private-sector partner (Accenture, 2002).

- **CREATE NEW BUSINESS MODELS**

In this scenario, government executives break out of traditional thinking to turn costs into investments and to generate new sources of revenue. For example, the Belgian Post has established an innovative joint venture called Laterio with a large consulting firm (Accenture, 2002). This unique venture will build business solutions, like an online fulfillment platform, that will not only serve the Belgian Post but also can be sold to third parties as well. The government of Ontario, Canada, has joined with Bell Canada, to operate and maintain the province's mobile communications towers (Deloitte, 2002). Ontario minimizes its costs by enabling its partner to use the towers to offer revenue-generating services.

- **DRIVE ECONOMIC DEVELOPMENT**

The government of South Australia, identified Outsourcing Journal as having the best government outsourcing relationship of 2000, set out to drive economic development (Deloitte, 2002). The government consolidated the mainframe and mid-range computers and wide-area networks of 100 agencies to attract a top IT

infrastructure outsourcer. In return for the business, the vendor had to offer an attractive price and commit to provide economic development for the state. The low price bidder didn't win – government executives chose the vendor with the best economic development proposal – but the savings have been substantial. More importantly, the vendor's operation in the area has more than tripled, spawning new support businesses and providing millions of dollars in value to the local economy (Deloitte, 2002).

5.3 STRATEGIC OPTIONS

The following two options are seen to be feasible, suitable and acceptable to SARS in the acquisition, deployment and management of x-ray scanning facilities and seem to be viable strategic options for SARS.

5.3.1 STRATEGIC ALLIANCES

Organizations like SARS often struggle to extract value from strategic alliances. SARS is a high growth organization and often can't do what they need to thrive on their own, but they don't want to give up their independence to be successful. Strategic alliances or collaborations among two or more government departments where decision-making and control are shared to derive mutual benefit can strike the necessary balance. (Deloitte, 2001:4)

From the ensuing analysis it is evident that the NPA and Department of Trade and Industry and the Department of Transport have a vested interest in logistic management of containerized cargo.

Accordingly it is submitted that SARS should consider as a strategic option the possibility of developing an alliance initiative for the acquisition and management of x-ray scanning technology as it would spread the financial risk and also promote its successful implementation as other government departments are also involved

The ultimate success of the alliance will depend on the choice of partners and SARS would have to evaluate the following criteria:

- Define the criteria through compatibility goals. Determine whether SARS can work with the chosen partners to achieve mutual objectives.
- Establish whether there are co-operative cultures. While cultures can be different, an alliance partner needs to show willingness to communicate and build a strong relationship.
- Ensure there are complementary skills that can be assessed by the alliance. All partners must contribute to and gain from the relationship.
- Strategic alliances are based on commensurate risk. A partner needs to share the risk of the venture to gain their attention and focus (Deloitte 2002:12).

Develop a list of candidates and examine each one from an operational, financial and legal perspective to ensure a strong and operational fit make certain that any party SARS plans to engage has the resources to execute an alliance without risking its effectiveness. Review their alliance history and reputation to determine whether they have displayed the necessary trustworthiness and teamwork from previous partnerships.

Establishing and sustaining a commitment to transform the value equation means government executives must go beyond contract management to master relationship management. Because of its strategic importance, transformation requires leadership at the highest levels of both public and private sector organizations. It demands fresh thinking about how services, risk and value can be unbundled and an intense, committed relationship between public and private partners formed to deliver on enterprise outcomes. To use this approach one has to:

- Manage the strategic relationship for on-going innovation through senior-level governance;
- Measure outcomes;
- Look for a strategic ally, not an outsourcing vendor;
- Create a financial model that makes a profitable business for your partner and compensates them for the risk they assume.

5.3.2 PRIVATE-PUBLIC PARTNERSHIPS

It is proposed that a strategic framework for making public-private partnerships (PPP) is a viable service delivery option for governments departments like SARS, in South Africa. A PPP is a contractual arrangement whereby a private party performs part of a department's service delivery or administrative functions and assumes the associated risks. In return, the private party receives a fee according to predefined performance criteria, which may be:

- Entirely for service tariffs or user charges
- Entirely from departmental or other budget
- A combination of the above

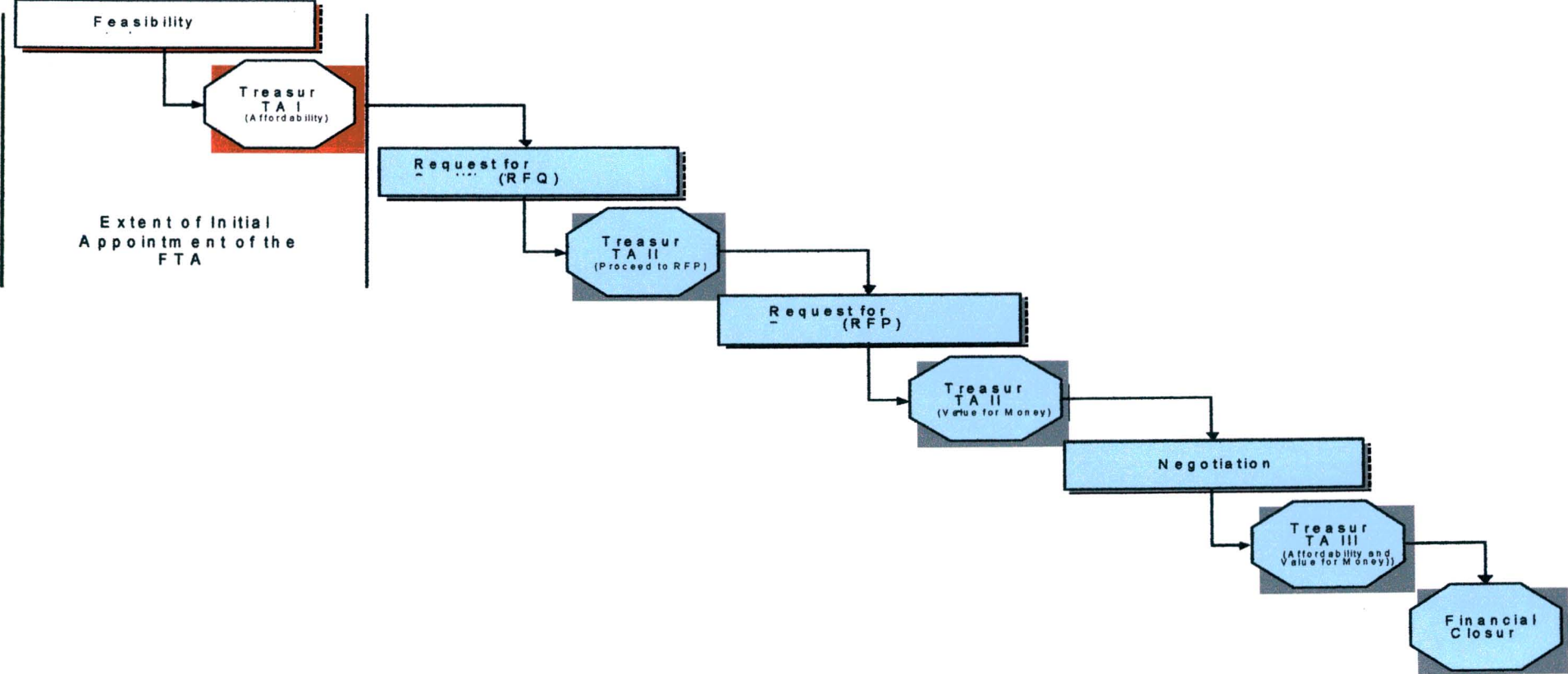
The essential aspects of a PPP arrangement, as distinct from the direct delivery of a public service by a department are:

- A focus on the services to be provided, not the assets to be employed
- A shift of the risks and responsibilities to a private provider for the activities associated with the provision of services.

In broad terms is suggested that SARS pursue a PPP financing structure for the acquisition of x-ray scanning facilities, as the current legislative and policy environment as for it. It could involve a host of parties and these could be, SARS, NPA, DTI, DOT and SAPS, equipment suppliers, private investors. In this way SARS would have the benefit of access to such services while sharing the risk with many other interested parties.

For SARS to pursue such a strategy firstly a Financial Transaction Advisor will be initially appointed to undertake the feasibility study for the proposed development of the x-ray scanning facilities, and make the submission to the National Treasury to demonstrate affordability, with the objective of obtaining Treasury Authorization I. The subsequent processes and authorizations can be summarized as shown in the diagram below in figure 5.2:

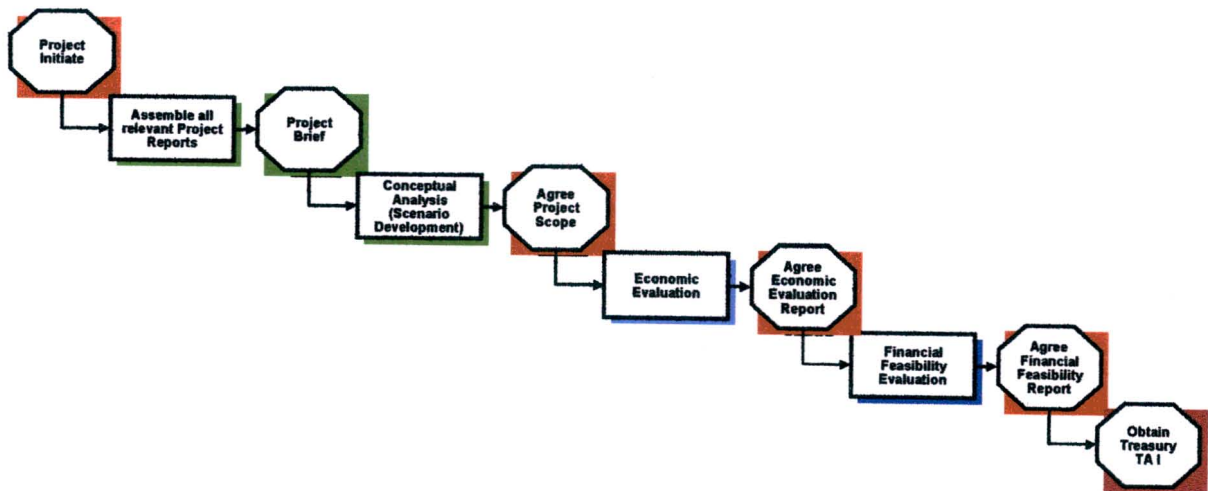
Figure 5.2: TREASURY AUTHORIZATION PROCESS SUMMARY



Treasury Authorisation I is the fundamental approval, and will be the primary reference point for all subsequent Treasury authorisations. It is the experience that many of the difficulties that PPP projects have experienced can be found to be rooted in an inadequately researched and developed feasibility. Accordingly, the approach is to ensure a comprehensive investigation and analysis process, tested with relevant stakeholders during its development, to achieve a robust Feasibility that enables the right decisions to be made. Here, a high degree of understanding and innovative thinking is required to ensure that the proposed project is not burdened with elaborate and expensive solutions, or conservative pricing, that might unduly compromise the project.

The feasibility study process leading to Treasury Authorization I is summarized in the figure 5.3:

Figure 5.3: FEASIBILITY STUDY DELIVERY PROCESS SUMMARY



From this process chart, it can be seen that a structured process of evaluation and agreement will be adapted from inception to completion of the feasibility study. This process can be further expanded as shown in figure 5.4 below, and the associated work breakdown structure is shown in figure 5.5 and figure 5.6.

Figure 5.4: EXPANDED DELIVERY PROCESS

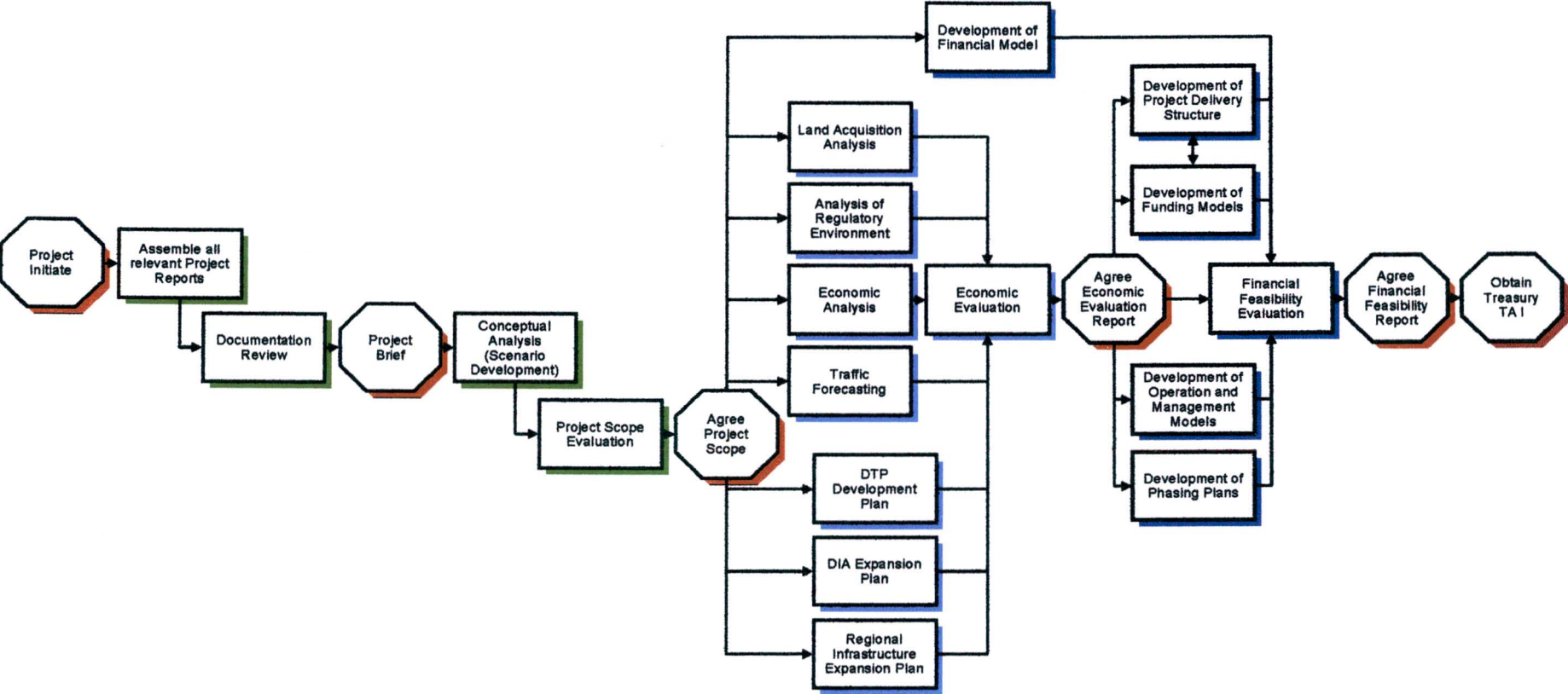


Figure 5.5: FEASIBILITY STUDY DELIVERY PROCESS ACTIVITIES

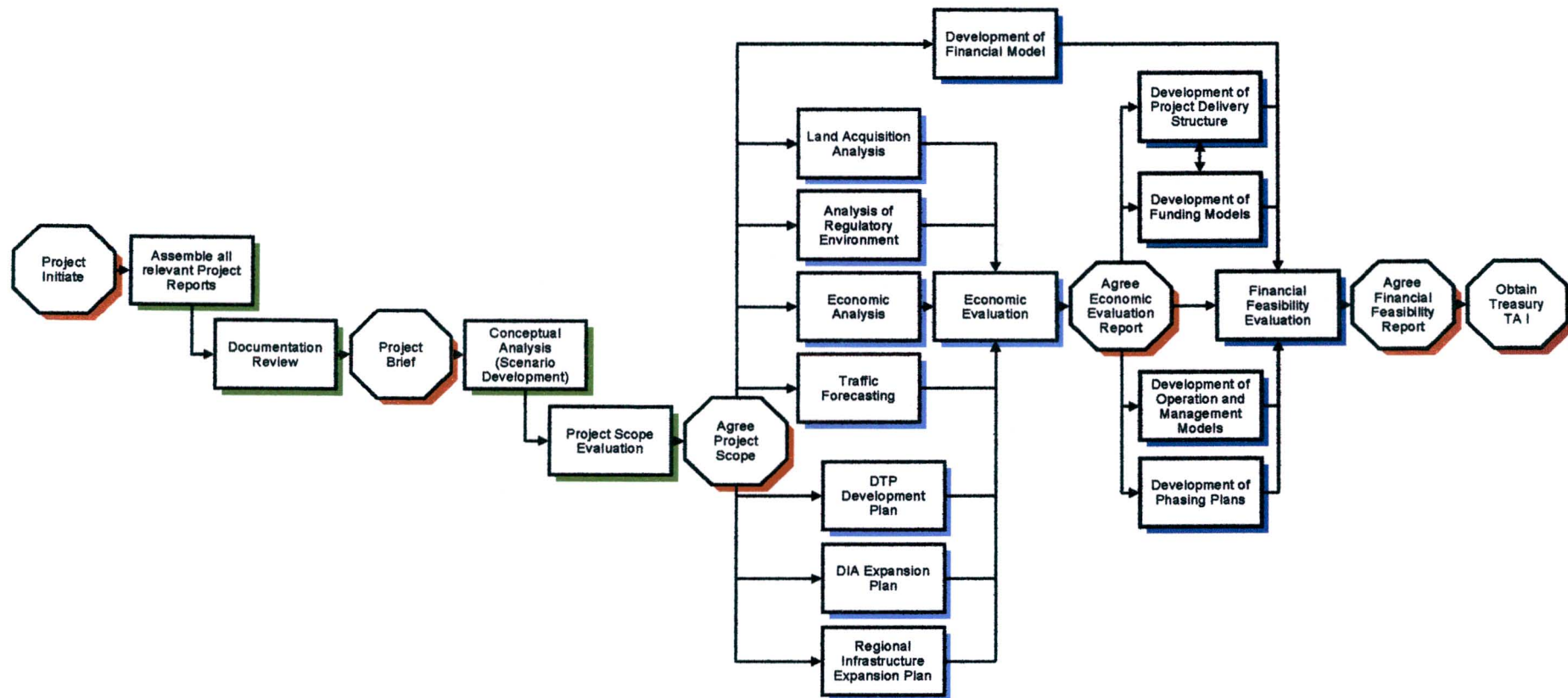
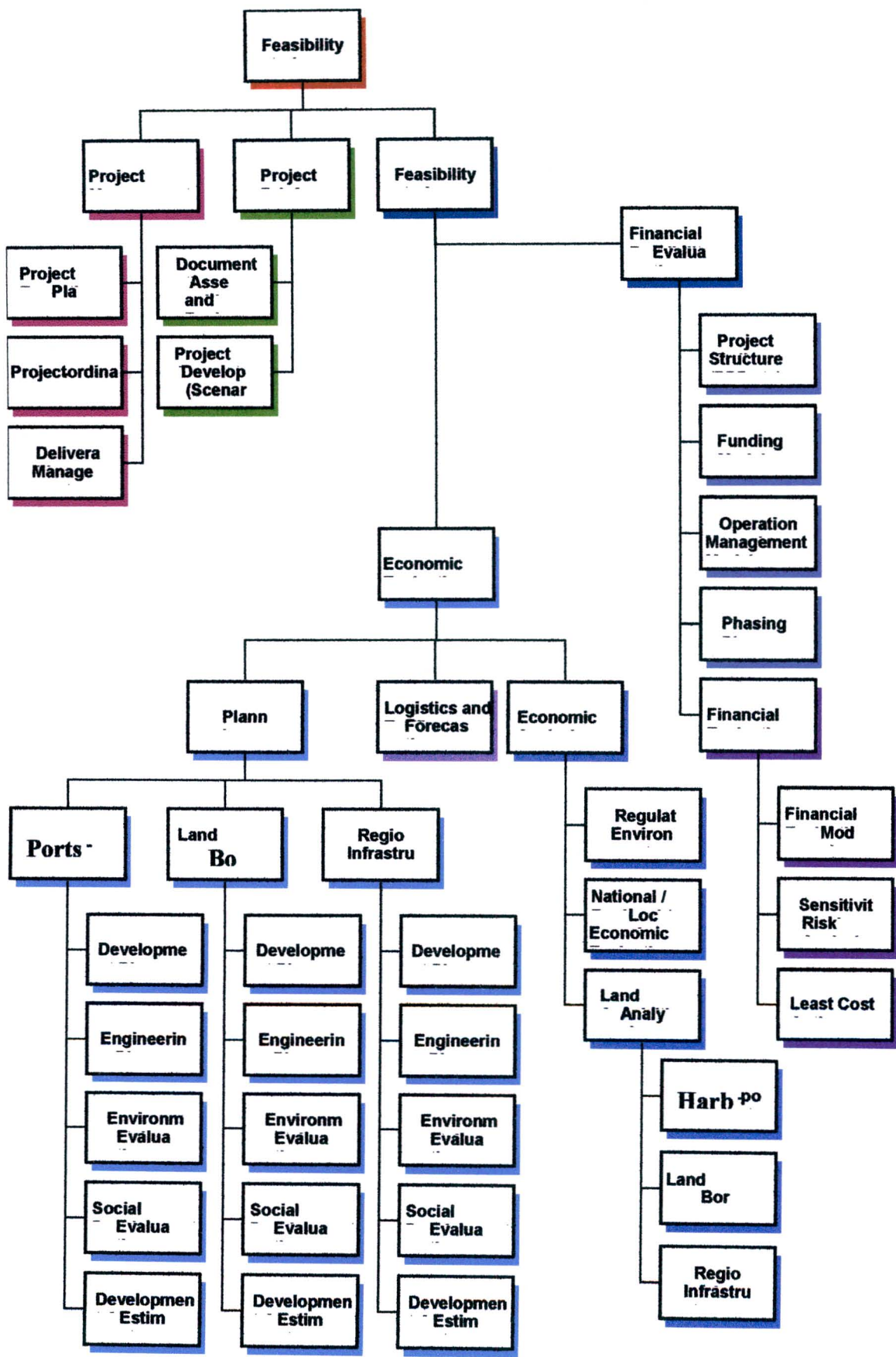


Figure 5.6: PROJECT WORK BREAKDOWN STRUCTURE



At the end of the Economic Evaluation, the First Draft Report (30% payment milestone) would be presented addressing the following for each option:

- Traffic Forecasts
- Planning and Engineering Report
- Social Development Report
- Environmental Report
- Legal Report
- Evaluation of x-ray scanning facilities
- Economic Analysis
- Sensitivity and Risk Analysis
- Least-cost option

At the end of the financial feasibility evaluation, a comprehensive Feasibility Study Report would be presented. This will be the Final Draft Report (70% payment milestone) and will comprise:

- Up-dated Economic Evaluation Report (as required)
- Facilities Management Report
- Options Analysis for each option (as appropriate)
 - Economic Benefits
 - Financial Feasibility
 - Project Structure
 - Project Timing
 - Private Sector Interest
 - Risk Profile
 - Environment / Social Development
 - Land issues
- Recommendations

The feasibility report will be sufficient to present to National Treasury to secure evaluation in terms of Treasury Authorisation I

5.4 IMPLEMENTATION

Once the strategic path is chosen it is imperative for SARS to address the following issues regarding implementation. Governments will choose unique paths for collaboration. Different drivers and customer needs will lead to different models. However, throughout collaboration, leaders need to focus on a core set of enabling activities (IBM, 2002:12).

- DEVELOP A HOLISTIC VIEW OF CUSTOMER NEEDS ACROSS THE ENTERPRISE

Collaboration begins by understanding the customer from a holistic view. Narrowly defined functional views perpetuate siloed government. Citizens do not often know (or care) which government department provides the service. Organizing information about common customer needs provides the linchpin to help bring organizations together.

- CREATE CROSS-DEPARTMENT PLANNING APPROACHES

Collaboration does not just begin with the central leaders. Heads of Departments of DTI, NPA, SAP and Customs need to recognize that they are all responsible for security of the logistics chain and need to engage jointly in economic development.

- CREATE ENTERPRISE STRATEGIC BUSINESS CASES

Leaders stewarding collaborative efforts must have authority and a mandate to act. In an environment of intense budget pressures, business cases provide the necessary support.

5.5 CONCLUSION

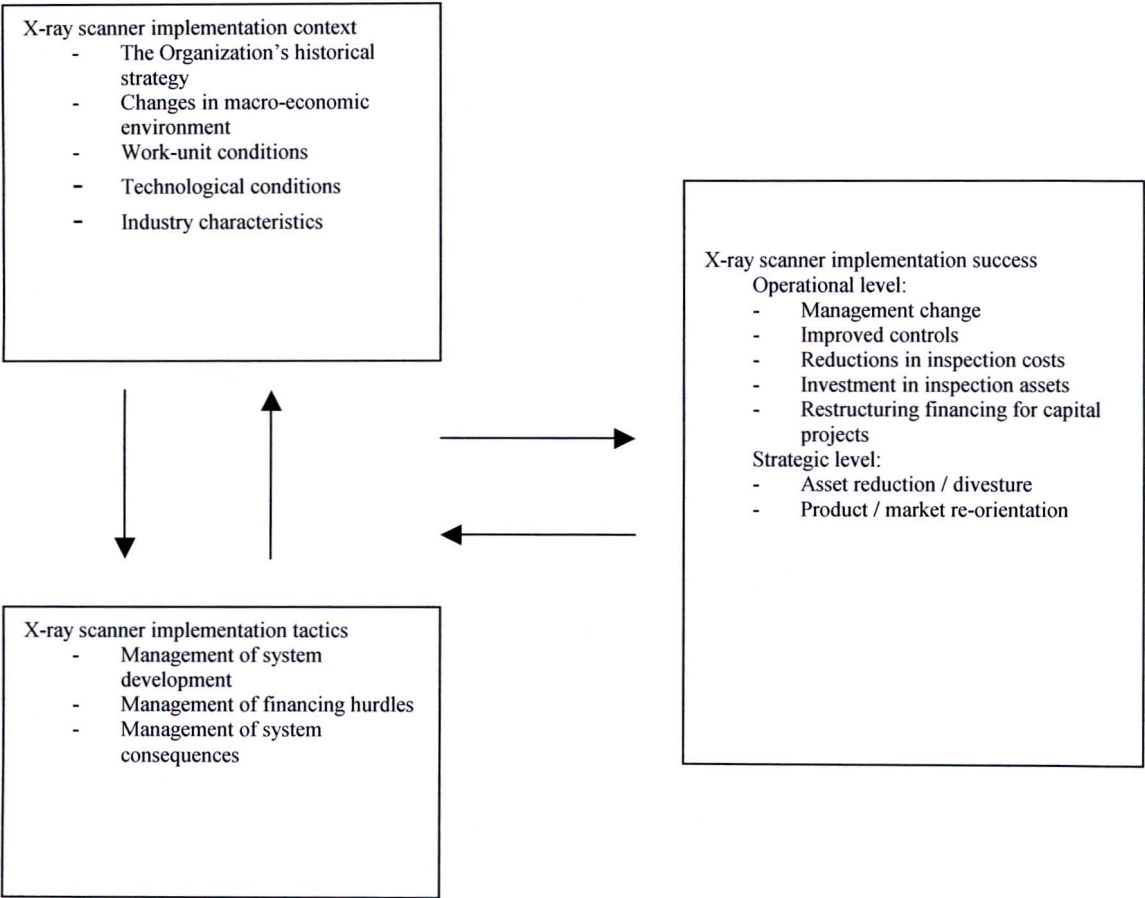
The scenarios presented illustrate how customs departments can no longer serve as the hub for all tax / duties interaction with clients. Increasingly, customs administrations can act as a clearinghouse for ensuring that clients meet their tax / customs obligations. Key intake, processing and audit functions may not always flow through customs administrations, but increasingly through intermediaries and other government departments. These entities can perform inspections at a lower cost to the government. Customs administrations can monitor these activities to ensure that clients comply with the respective laws.

Government integration can produce significant compliance and operational processing efficiencies. Tax administrations need to understand how interoperable their processes; organizations and technology architectures are with other departments. Do business and technical resources jointly develop and implement strategic plans?

The private sector offers skills and assets desired by governments facing increased budget pressures, loss of skilled resources, limited time to implement solutions and increased strategic focus on core activities. Revenue departments need to examine how private-sector companies can help administer and manage processes and assets. Third-party service-delivery models and outsourcing non-core activities allows customs departments to reallocate resources to other value-added activities such as improving client relationships, increasing audit staff, developing knowledge and increasing service efficiency.

APPENDICES

APPENDIX 1



APPENDIX 2: INTERVIEW GUIDE

Case: ____

Interview: ____

Date: ____

Time: ____ AM PM

Name of interviewee: _____

Phone: _____

Title: _____

INTRODUCTION

- Purpose of the meeting: Learn more about the context in which the implementation of the x-ray scanners technology took place as well as the tactics adopted to ensure system success.
- How long have you worked work for NPA / Ghana Customs / SARS/ etc?
- Which position(s) have you occupied in the past? What is your current position?

IMPLEMENTATION CONTEXT

Previous experience with x-ray technology:

- How had the transition been from physical inspections of containers to an x-ray scanner?
- How would you describe the experience with the <first> x-ray scanner system implementation? Did you go through "chaos" in the beginning? How has the situation evolved? Did people/public adjust easily? If so, what made them adjust? Were there specific actions taken at a certain point?
- To what extent would you say the experience with the first system will affect the implementation of additional systems? Explain.

Organizational Resources

- In your opinion, has the implementation of the additional systems been supported by enough resources in terms of money, people, and equipment. Explain.
- Will the implementation process be affected by a lack of resources at any point in time?

IMPLEMENTATION TACTICS

External Integration

- How have stakeholders, other governmental department and interested parties been kept informed of the progress regarding the implementation of the additional x-ray scanning systems?

Championing

- Many argued that any system should be sold to customs officers /police officers if they are to use it? How has this happened here in the case of the first system?
- Were the benefits and advantages of the x-ray scanning system compared to the manual system of inspection? Did you emphasize the problems associated with the first system and how the further systems would solve them?

IMPLEMENTATION SUCCESS

- In your opinion, what will the major benefits associated with the use of the additional x-ray scanning systems be, from an individual or customs standpoint and from an organizational or unit standpoint?
- Ultimately the most significant beneficiary of x-ray scanners should be the public. Will this be achieved in this case? Explain.

AFTERTHOUGHTS AND COMMENTS: (if any)

APPENDIX 3: EXCERPT OF THE CODING SCHEME

CONTEXTUAL CONDITIONS

1. National/ International Movement toward x-ray scanning of containerized cargo

- A segment, which presents evidence of efforts, made by international and national associations, customs administrations, law enforcement agencies, and maritime agencies towards x-ray scanners for the inspection containerized cargo.

2. Organizational Climate

- A segment which reflects one's own perception about his/her organization with respect to commitment to technological and/or management initiatives.

3. Organizational IT Experiences

- A segment which refers to the memories or experiences that exist in the organization about prior information technology initiatives and x-ray scanning technology.

4. Availability of Organizational Resources

- A segment which shows the extent to which the organizational resources needed to support the development and implementation of the system were available. Organizational resources do not only include money, but also time, people, hardware, software, and facilities.

5. *Users Skills/Knowledge*

- A segment which describes one's perception of the extent to which users are familiar with the task of inspections being automated, are familiar with the x-ray scanning technology, and/or have experience with x-ray scanning technology in general.

IMPLEMENTATION TACTICS

1. *External Integration*

- A segment which indicates the adoption of tactic(s) whose objective is to link the project team's work to the users. Examples of external integration tactics include the selection of a user as project leader, the selection of particular users as team members, and the consultation of users on an occasional basis for feedback purposes.

2. *Internal Integration*

- A segment which describes the adoption of tactic(s) whose purpose is to ensure that the project team operates as an integrated unit. Well-known internal integration tactics include the selection of experienced project professionals to be part of the project team; frequent project team meetings; participation of all team members in goal setting; and selection of a high percentage of team members with significant previous work experience and relationships.

3. *Championing*

- A segment which illustrates effort(s) made for providing motivation to the project team; generating enthusiasm for the

targeted users; providing crucial political support during periods of important decision making; selling the idea to top management; and/or getting senior managers sufficiently interested in the project, etc.

4. *Incremental Approach*

- A segment which provides evidence that a strategic decision was to introduce the various modules of the x-ray scanning technology in a gradual, step-by-step manner.

5. *Mutual Adaptation*

- A segment which portrays how the organization moved ahead with the introduction of the technology, left existing organizational arrangements (e.g., structure) in place, and subsequently attended to organizational changes on a responsive or adaptive basis.

IMPLEMENTATION SUCCESS

1. *System Acceptance and Use*

- A segment which expresses one's perception of users' acceptance and/or use of the computerized information system.

2. *Project Progress*

- A segment which provides insights as for how the project evolved or progressed over time. Most IT implementation or development processes are usually evaluated in terms of their respect of deadlines and budgets. IT projects are also subject to unavoidable or unexpected problems of all sorts.

3. *Overall Satisfaction with the Implementation Process*

- A segment which makes a suggestion about one's own satisfaction, perception, reflection, and/or evaluation in regard with the overall development and implementation process.

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