The implementation of vendor strategies in a South African chemical company.

By

GERHARDUS JOHANNES IGNATIUS STRYDOM

MINI DISSERTATION submitted in partial fulfilment of the requirements for the degree

MASTER IN BUSINESS ADMINISTRATION
in the faculty of
ECONOMIC AND MANAGEMENT SCIENCES
at the
NORTH-WEST UNIVERSITY

Supervisor: Prof. J.G. Kotzè
Potchefstroom
2004

VOORWOORD

My opregte dank aan die volgende:

- My Hemelse Vader vir die genade en insig wat U aan my gegee het om hierdie studieprogram te kon voltooi.
- My familie vir hulle geduld en die baie opofferings, Corrie en Cilliers ek waardeer julle ondersteuning en begrip.
- André Kotzee vir jou vertoue en ondersteuning, André, sonder jou motivering sou ek dalk nie die program aangepak het nie! Baie dankie daarvoor.
- Professor Jan Kotzè vir die hulp en leiding met die voltooing van die skripsie.
- Noordwes Universiteit vir die geleentheid om myself te kon verbeter deur middel van die studies.

Gerhard

UITREKSEL

Die primêre doel van die navorsing was om die gaping te vul deur 'n riglyn daar te stel waarvolgens Sasol Polymers verskafferstrategieë kan ontwikkel. Die sekondêre doelwit van die studie was om die effektiwiteit van die verkrygingsdepartement te verbeter. Tradisioneel is verkryging beskou as 'n funkionele aksie wat die operasionele behoefte ondersteun deur middel van aankope. Globale kompetisie en die nastreef van beste praktyke het maatskappye egter meer bewus gemaak van die voordele van strategiese vekryging.

Die gemeenskaplike doelwit van enige besigheid is om winste te maksimeer – die waarde van verkrygingsdienste kom hier ter sprake. Moderne verkrygingstrategië word gebaseer op 'n beginsel van totale kostevoordeel vir die maatskappy en gevolglik word die voordeel nie meer net op prys alleen beoordeel nie. Besighede neig daarom om die verkrygingstrategieë te belyn met besigheidstrategieë, ten einde die voordeelpotensiaal van verkryging ten volle te ontgin. Voorts is daar 'n neiging dat verskaffer en aankopemaatskappy nader na mekaar moet beweeg in hul besigheidsverhouding. Inligting word meer vrylik gedeel en nouer samewerking help om albei te bevoordeel.

Die studie vind toepassing op Sasol Polymers, 'n divisie van Sasol verantwoordelik vir die vervaardiging van verskeie plastiese produkte wat plaaslik en oorsee bemark word. Die skrywer was van mening dat die daarstelling van verskafferstrategieë die onderneming sou help in hul proses van deurlopende verbetering. 'n Literatuurstudie is gevolglik gedoen ten einde strategiese fasette van verkryging na te vors en om die voordeel van beste praktyke te vergelyk met eie praktyke. As deel van die studie is 'n empiriese ondersoek gedoen ten einde vas te stel wat die verhouding is tussen Sasol Polymers en sekere belangrike verskaffers, asook hoe die verbetering van die verskaffingsverhoudings verder kan bydra tot die voordeel van sowel die verskaffer as die maatskappy.

Kraljic (1983) se verskaffingsverhoudingsmodel is nagevors en verbind met nuwe literatuur en dit is duidelik dat die model vandag nog met groot sukses gebruik

word en dat talle besighede nog nie die volle voordeel van die model benut nie. Mees onlangse literatuur verwys dan ook deurlopend na Kraljic en die suksesse wat sy verskaffingsverhoudingstrategie teweeg kan bring.

'n Gevolgtrekking word gemaak dat Sasol Polymers se verkrygingsproses goed vergelyk met wêreld- beste praktyke. Die Kraljicmodel word gebruik vir die daarstel van kommoditeitstrategieë, maar daar is egter tog 'n tekortkoming in die sin dat daar geen formele verskafferstrategieë in plek is nie.

ABSTRACT

The prime objective of this study was to provide guidelines for the implementation of vendor strategies at Sasol Polymers. A secondary objective was to improve the efficiencies of procurement. In the past, procurement was seen as an operational function responsible for buying goods and services to support business needs. Global competition and the striving towards becoming world class made companies more aware of the value that procurement could add to the business on a strategic level.

The common objective of any organisation is to maximise profits. A strategic procurement approach, based on total cost of ownership principles, plays an important role, as input costs are no longer evaluated based on price in isolation. The importance of supplier relationships has also become inevitable. Successful businesses will therefore, tend to align procurement strategies with their business strategies.

The study was based on Sasol Polymers, a division of Sasol responsible for the manufacturing of various plastic products aimed at the local and foreign markets. The literature study was based on procurement strategies and the effect that global competition and best practices have on internal procurement efficiencies. An empirical research, based on Sasol Polymers supply relationships, was performed to understand the current situation and the role that supplier relations could play in the improvement of procurement efficiencies.

The Kraljic relationship model was researched and it is the author's opinion that the model is still very relevant, although many companies fail to realise the potential of this model. It is finally concluded that Sasol Polymers' procurement processes compare favourably with world class procurement practices. The Kraljic relationship model is utilised with success in creating commodity strategies, however, procurement still has a need for vendor strategies.

TABLE OF CONTENTS **PAGE No:**

LIST OF FIGURES

PAGE No:

LIST OF TABLES

GLOSSARY

ABBREVIATIONS

AECI	African Explosives Chemicals Industries
BEE	Black Economic Empowerment
BEEP	Black Economic Empowerment Purchases
BU	Business Unit
DOV	Definition of victory
GM	General Manager
IT	Information technology
PP	Polypropylene
PSM	Procure and Supply Management
SAP	An integrated computer system
SCI	Sasol Chemical Industries
SST	Strategic Sourcing Teams
SWOT	Strengths, weaknesses, opportunities & threats
TCO	Total cost of ownership
UNSPSC coding	United Nations Standard Products & Services Codes

DEFINITION OF TERMS

BEEP	Purchases from previously disadvantaged groups in South Africa, also referred to as Black economic empowerment purchases.
Commodity	Refers to all goods and services that are purchased from suppliers
Commodity cluster	Is defined as a number of similar commodities grouped together .
Curtain railer	Refers to an inter-link vehicle that has curtains on the side that can be closed to prevent product from exposure to weather conditions.
Definition of victory	Refers to Sasol PSM reporting on key measurements. These measures are benchmarked against best practices and are aimed at continuous improvement.
Dry bulk	Refers to bulk product other than liquid bulk
End-user	Is defined as the person or department that is responsible for utilising or consuming the service or products purchased by the procurement department.
NetGain	A Sasol strategic sourcing team approach that involves the management and analysis of total cost of ownership (TCO), industry analysis and market research, global strategic sourcing, opportunity identification and development, intensive stakeholder involvement, implementation of opportunities identified, measurement and tracking and a high level of senior management support.
Spend	The monetary value of external purchases

Total cost of ownership	Refers to the total sum of all expenses and costs associated with the purchase of a service or commodity.
Vendors/Suppliers	A vendor/supplier refers to a person who sells goods or services.
Walking Floor	A dual purpose or utility vehicle that can accommodate both bulk and packed material on a moving floor that enables efficient offloading. Typically this vehicle could transport bulk product to a customer and return palletized product on a return load. Thus, utilisation is key to cost reduction or TCO.
Win-win	Refers to a supply scenario that is beneficial for both the buying company and supplier.
World Class	Refers to best in class in the world.

CHAPTER 1

THE PROBLEM STATEMENT AND STUDY OBJECTIVE

1.1 Introduction

Kyte (2003:3) states that revitalising the procurement function will involve significant organisational changes. In too many enterprises, the procurement function is too low a level to be able to execute an effective strategic sourcing strategy. In the past procurement was seen as an administrative function. The primary activity of procurement often was to place purchase orders and to expedite the orders. Thus purchase orders and deliveries were the main deliverables. Today, these activities still remain important, however, they cannot be regarded as the primary activity of procurement in the future. Procurement must add strategic value to the organisation. As competition becomes more intense, organisations are forced to be more proactive in the way they manage costs

Burt et al. (2003:xxxiii) state that the procurement of material and services is a process that cuts across organisational boundaries. This process includes activities in marketing, engineering, operations, production, planning, quality assurance, inventory control, purchasing and finance. Integration of the procurement activities performed by these departments results in a synergy, a situation where the whole is greater than the sum of the parts.

According to Kyte (2003:19), the procurement department needs to understand that their goal is to deliver the best value for the cost, not just the lowest price for the goods or services acquired. Kyte (2003:20) further argues that the business of the future will not be able to deliver value without adopting a positive view of the need to invest in the managing of supplier relationships. The procurement and vendor management functions of the future will be different from those of today. Organisations open to learning how to manage the most positive relationships with strategic suppliers will be able to satisfy their own customers more effectively and will be more formidable competitors in the business environment.

Based on the above, one can argue that a vendor strategy should form one of the cornerstones of the procurement strategy. Kraljic (1983:109) introduced the first comprehensive portfolio approach for the determination of supplier relationships. Today, this model still proves to be very relevant in the modern procurement environment, as some of the most relevant new literature still refers to the Kraljic model.

1.2 The problem statement

Purchasing literature often refers to vendor strategies and the need to reduce input costs to make organisations more efficient. The supplier, also known as the vendor, plays an important role in the cost efficiency of an organisation. Purchasing literature, however, does not often explain the methodology on how to improve vendor efficiencies and/or how to go about implementing a vendor strategy in detail. Thus, very little is known from a practical perspective about how to implement vendor strategies.

Literature on strategy formulation refers broadly to the three different levels of strategy namely: strategic, tactical and operational. Strategists worldwide see the big picture, but fail to integrate their high-level strategy with the operational activities of a business at a lower level. Middle management is mainly responsible for interpreting the strategies. They are the custodians of the tactical approach and become the owners of the implementation process on the operational level via the utilisation of the subordinates reporting to them. Therefore, they should be able to know and understand the dynamics of purchasing strategies in general.

Do purchasing managers in South Africa know and understand the practical requirements of a procurement strategy? It is the author's opinion that there is a lack of empirical studies on vendor strategies and, more specifically, with regards to the practical aspects of supply strategies in the South African business environment. Most vendor strategies are based on a theoretical approach.

Procurement managers need to bridge the gap between the potential of a high-level procurement strategy and the problems posed by the complexity of operational issues.

Due to the gap between theoretical knowledge and practical implementation, most companies fail to benefit fully from these strategies. It is the assumption of this study that very few South African companies have procurement strategies in place with a full support structure that ensures the management of relationships with suppliers to enhance value added throughout the supply chain.

1.3 Background

1.3.1 Company

Sasol Polymers was founded in May 1988 as a Division of Sasol. The company started their production of polypropylene (PP) products during February 1990 in Secunda. This Sasol project was justified in the mid 1980's with the objective to export 74% of its production capacity into Africa, Europe, the Middle East and Far Eastern countries. The balance of 26% was to be sold into the South African domestic market.

The full acquisition of Polifin (AECI Limited 40% and Sasol Limited 60%) has enabled Sasol Polymers to become South Africa's leading producer of monomers (ethylene and propylene) and polymers (polyethylene, polypropylene and polyvinyl chloride) and a major manufacturer of chlor-alkali chemicals, mining reagents and related products.

Currently Sasol Polymers operates its plants in Secunda, Sasolburg and Benoni as a subsidiary of Sasol Chemical Industries (SCI).

1.3.2 The department under study

Sasol Polymers Procurement and Supply Department (PSM) is responsible for the procurement function within Sasol Polymers. Prior to July 2003, the function was performed on a totally decentralised base. Each of the four individual business units (BU's), Polypropylene, Polyethylene, Vinyls and Chemicals had its own purchasing manager en support staff.

Based on a Sasol PSM decision to standardise the PSM function in the Sasol Group, Sasol Polymers PSM was restructured on a hub and spoke concept. PSM was divided

into Demand Management, Procurement and Performance Enablement. Demand Management also includes materials handling and is operated on a decentralised base with support staff at each BU. Procurement and Performance Enablement are centralised at Sasol Polymers central office in Bryanston, Johannesburg.

1.3.3 The current situation

Sasol Polymers PSM currently provides a service to the above four BU's with a supply base of 1 456 vendors, supplying Sasol Polymers in excess of 10 000 commodities. External spend amounts to R1,1 billion per annum. Main priorities for the new PSM during the first year of existence were:

- To implement a PSM strategy;
- To achieve a cost reduction of R15m for the year based on previous year cost base line;
- To improve purchase order effectiveness, based on a criteria of eight system health checks that include (i) converting purchase requisitions to purchase orders within 3 working days and (ii) less than 25 open purchase orders on the SAP system 14 days after delivery of products and services;
- Improve Black Economic Supply Base from 2,3% to 10%;
- Ensure that 80% of external spend are on formal contracts;
- Reduce inventories by 10%.

1.3.4 The current structure

The current Sasol Polymers PSM reporting structure is attached as Exhibit 1.

1.4 The study objective

1.4.1 Primary objective

The primary objective of this study is to link procurement and purchasing strategy literature with practical solutions to enable the author to implement effective vendor strategies at Sasol Polymers.

1.4.2 Secondary objectives

Secondary objectives of the study are to develop building blocks that could improve:

(i) The current procurement strategy of the organisation;

(ii) Supplier relationships between the organisation and its vendors, and

(iii) Procurement efficiencies to add value to the organisation.

1.4.3 The importance of this study

The study will allow the author to gain insight into various procurement strategies, vendor strategies and related procurement best practices in the world. Knowledge will be transferred to the work environment via the practical implementation of a vendor strategy in the organisation.

1.5 Research methodology

1.5.1 Literature study

A literature study will be done through the utilisation of the Ferdinand Postma Library at the North-West University, the Sasol Rosebank Library in Johannesburg and the Internet.

The literature study will include the following:

- Procurement and purchasing strategies
- Procurement and purchasing best practices
- Vendor strategies
- Supplier relationships
- Supplier performance measurement
- Commodity strategies

Theoretical insights from textbooks, periodicals, Internet articles and research theses will be identified, summarised and presented.

1.5.2 Empirical research

The empirical research will involve the examination of Sasol Polymers procurement structures, procurement governance policies, procurement strategies and selected supplier relationships to serve as a framework for the implementation of vendor strategies. The approach to this will be as follows:

- Study and analyse the Sasol Group procurement strategy as a framework for vendor implementation;

- Study literature on the topic to ensure understanding of supplier relationships;
- Collection of supplier data within Sasol Polymers;
- Analysis of data to separate vendors according to their importance to Sasol Polymers;
- Identify suppliers of important commodities;
- Apply literature methodologies to compile a vendor strategy framework.

1.6 Limitations to the study

As is the case with most modern business functions, procurement methodologies are changing continuously through development. Continuous change may therefore have a direct impact on procurement strategies. The following factors could influence procurement strategies to change:

- Striving towards best in class;
- A drive towards continuous improvements;
- Change in global business trends.

It is therefore important to continuously monitor the elements' impact on the analysis and evaluation of the suitability of a procurement and vendor strategy. The information supplied in this study and the recommendations made, should thus be evaluated in their correct context, and the application of the recommendations made with the necessary caution.

1.7 Structure of the MINI DISSERTATION

Chapter one contains the introduction to the study, the problem statement, background to the company and department under study, the primary and secondary objectives of the study and the adopted research methodology.

Chapter two contains a literature study on strategic procurement and related aspects that could have a direct or indirect impact on procurement strategies.

Chapter three contains a literature study on supplier relationships and the impact it could have on strategic procurement. Reference is made to other existing and related supplier-relationship models.

Chapter four will comprise of:

- The research done on Sasol Polymers procurement;
- The theory around the research to be done;
- A questionnaire on supplier relationships;
- Discussion of the information gathered by means of analysing the questionnaires.

Chapter five deals with the conclusions, recommendations and the implementation plan for vendor strategies.

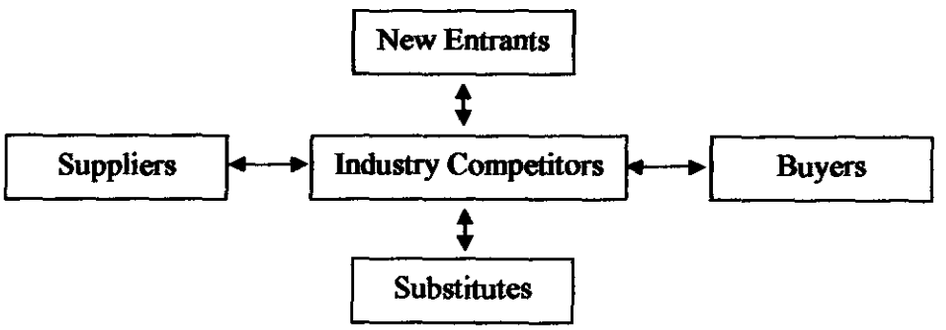
CHAPTER 2
STRATEGIC PURCHASING

2.1 Introduction

Before looking at a vendor strategy, one will have to consider what forms the basis of such a strategy. The following aspects are important and will definitely play a role in shaping the vendor strategy:

- Business vision and strategic objectives.
- Commodity requirements. The need and the availability thereof. In this aspect, the needs of the end-user is of great importance. Quality, price, delivery and supplier service levels are important.
- Procurement strategy, structure and policies may be seen as the boundaries of a vendor strategy, as the vendor strategy will have to fit in with the above framework within the organisation.
- Market conditions and industry dynamics. Michael Porter (1979) provides a framework for understanding the dynamics that are present in an industry. Porter's five force model seen in figure 2.1 below explains the context of the industry dynamics. Porter's five forces will have a direct impact on the vendor strategy and will play a dominant role in supply decisions.
- Supplier relationships. The competitiveness of the supplier, availability and sustainability of resources, compatibility and ability to integrate are just some of the factors that could influence the success of a vendor strategy.

Figure 2.1: Porter's five force model



Source: Thompson & Strickland (2003:81)

2.2 Strategy assessment

According to Grant (1998:24), strategy links with mission and vision in defining where the firm wants to be in the future. He states that the purpose of such goal setting is not just to establish a direction to guide the formulation of strategy, but also to set aspirations for the company.

Segil (1996:7) refers to the following phases of a strategy:

- Strategy – the process of planning and directing operations into the most advantageous position before entering into engagement.
- Tactical – the process of organising during engagement.
- Operations – the process of being in action. The state of actively being involved in business activities and transactions.

Thompson & Strickland (2003:10) support the above by saying, "A company's strategy consists of the competitive efforts and business approaches that managers employ to please customers, compete successfully, and achieve organisational objectives. They further state that "strategy making brings into play the critical managerial issue of how to achieve the targeted results in light of the organisation's situation and prospects. Objectives are the 'ends' and strategy is the 'means' of achieving them. The hows of a company's strategy are typically a blend of (i) deliberate and purposeful actions, (ii) as needed reactions to unanticipated developments and fresh market conditions and competitive pressures and (iii) the collective learning of the organisation over time – not just the insights gained from its experiences but, more important, the internal activities it has learned to perform quite well and the competitive capabilities it has developed."

Thompson & Strickland (2003:6) refer to the five tasks of strategic management as:

- Forming a strategic vision of where the organisation is headed, so as to provide long-term direction, delineate what kind of enterprise the company is trying to become, and infuse the organisation with a sense of purposeful action.
- Setting objectives, converting the strategic vision into specific performance outcomes for the company to achieve.

- Crafting a strategy to achieve the desired outcomes.
- Implementing and executing the chosen strategy efficiently and effectively.
- Evaluating performance and initiating corrective adjustments in vision, long-term direction, objectives, strategy, or execution in light of actual experience, changing conditions, new ideas, and new opportunities.

Implementing and executing a chosen strategy will entail assessing what it will take to develop organisational capabilities to reach targeted objectives on time.

Ellram & Birou (1995:67) state that purchasing's role ranges from support to a strategic function. To the extent that purchasing provides value to other functional areas, it will be included in important decisions and become involved early in areas that affect purchasing.

2.3 Supply chain management

Business strategies involve all activities from the organisation's suppliers to the organisation's customers. Literature often refers to the above as the supply chain. Burt et al. (2003:622) state that supply chain encompasses all activities associated with upstream and downstream flow and transformation of goods and information from the raw material stage, through to the end user.

Supply chain management has been broadly defined as an integrative philosophy to manage the total flow of a channel from the earliest supplier to the ultimate customer, and beyond. The key concept is that the channel is viewed as an integrated whole, with the goal of understanding the channel as a true system. According to Cooper et al (1997:68), each player in the channel directly or indirectly affects all other channel members, as well as the ultimate, overall channel performance.

Procurement plays a key role in the supply chain of any organisation, as they have to ensure that they understand the needs of other functional areas such as manufacturing, maintenance and logistics to ensure that they can provide the necessary materials and services required via external suppliers. From a procurement perspective, end-user functional needs could include the following:

- Quality required;
- Quantity required;
- Agreement of service levels with suppliers;
- Correct price.

2.4 Purchasing, procurement or supply management

Van Weele (1994:9) states that the purchasing function traditionally encompasses the process of buying. It involves determining the need, selection of suppliers, arriving at a proper price, specifying terms and conditions, issuing the contract or order, and following up to ensure proper delivery. Van Weele (1994:10) describes procurement as a somewhat broader term. According to him it includes all activities required in order to get the product from the supplier to its final destination. It encompasses the purchasing function, stores traffic and transportation, incoming inspection and quality assurance before accepting the product.

Two decades ago Kraljic (1983:109) said in his Harvard College article that "Purchasing must become supply management." In his article he provides direction for supplier relationships. Kraljic describes an approach that enables management to assess its supply position and develop a tailor made strategy to minimise the company's supply vulnerability and make the most of its buying power.

However, the role of purchasing has changed a lot during the last number of years. Purchasing has become procurement and most literature on the subject acknowledges supply management. Whether one refers to purchasing, procurement or supply management, the function today requires detailed business knowledge and it is not just a matter of buying products and services at the best price. These days procurement requires much strategising. To ensure that the best value is added for an organisation, procurement should strategise the following:

- What commodities to buy;
- Who to buy it from, and
- At what cost to buy it;
- How to deliver it, at what cost, and when to deliver it and, most importantly,
- How sustainable the supplies would be in the future.

2.5 Procurement strategies

Ellram & Birou (1995:48) said that corporate strategy focuses on determining what businesses the firm should be in. Business level strategy is designed to answer the question "How do we compete in the industry?" This involves an analysis of the competition, and an interpretation of the role that each competitor fills in the industry.

Functional level strategies in an organisation include procurement of goods and services. Strategic procurement planning requires an analysis of both external and internal operating environments. Examining the external environment requires a full investigation on industry level.

A procurement strategy encompasses the following strategies:

- Sourcing strategies;
- Commodity strategies;
- Vendor strategies;
- Delivery or Logistics strategy that includes both inbound and outbound activities;
- Inventory strategies.

2.5.1 Sourcing strategies

Kyte (2003:8), states that "enterprises must analyse their sourcing requirements to ensure that they pick the right tools for the job. According to him, although strategic sourcing applications are becoming more popular, the term belies the variety of functionality and fragmentation in the market." Five functions are associated:

(i) Sourcing strategy development;
(ii) Spending and supplier analytics;
(iii) Supply and market discovery;
(iv) Requirement specification and negotiation management;
(v) Supplier selection, allocation and award.

According to Lamar & Dobler (1977:63), "suppliers, like manufacturers, have no choice as far as industrial progress is concerned. Either they keep pace with the times,

or they fall by the wayside. Buyers doing business with suppliers who fall behind jeopardize the future of their own firms". Organisations therefore need to be careful in selecting their supplier base. The author supports the above statement and feels that suppliers need to be evaluated on formal criteria that consider all business aspects. It is in particular important that suppliers need to be aligned with business strategies.

According to Burt et al. (2003:328), a strategic sourcing plan refers to the detail of how procurement will discover, evaluate, select and manage a viable supplier base. They suggest that a strategic sourcing plan should allow for the following stages:

(i) Discovery of potential suppliers;
(ii) Evaluation process to determine supplier value added to the business;
(iii) Selection process to identify the supplier that can add the best value to the business through his supplies;
(iv) Development of the selected supplier/s to ensure that they add maximum value to the organisation;
(v) Management of a supplier to ensure that value is added continuously.

The objectives of strategic sourcing move far beyond the traditional belief that procurement's primary goal is to obtain goods and services in response to user requirements. Strategic sourcing is not considered as a narrow functionalism, but a driving force behind organisations' long-term success (Russill 1997:20).

2.5.1.1 Single versus multiple sourcing strategies

An organisation could make use of a multiple sourcing strategy that allows the organisation to utilise more than one supplier to supply the same goods or services, or select a single supply strategy that allows one supplier to supply the goods or services needed. Single supply refers to the situation where the buyer has selected to buy from one supplier, although he had the option to buy from one or more suppliers. This differs from the sole supply scenario, where the buyer does not have an option, as there is only one supplier available or known to him to supply him with the necessary goods or services.

A single supply strategy could be a risk factor or could deliver benefits, depending on the supply relationship. If the supplier rates the buyer as an important customer, single supplies could be beneficial. The major argument for placing all of a firm's business with one supplier, is that in times of shortage, this supplier will give priority to the needs of a special customer. Additionally, single sources may be justified when:

- Lower total cost results from a much higher volume (economies of scale);
- Quality considerations dictate;
- The buying firm obtains more influence – clout – with the supplier;
- Lower costs are incurred to source, process, expedite, and inspect;
- The quality, control, and coordination required with just-in-time manufacturing require a single source;
- Significantly lower freight costs may result;
- Special tooling is required, and the use of more than one supplier is impractical or excessively costly.

However, if the buying company is not a special customer, the buyer should be careful to utilise a single supply strategy, as he might not receive preference rights during shortage of supplies. This could make the company vulnerable to supplies and could have serious implications. Thus, buying from one supplier should be a strategic decision, and needs to be analysed carefully before making a decision, as such a decision may affect the success or even the survival of the firm. It is therefore important for a buying company to utilise cross-functional teams to strategise sourcing teams, as it involves more than just procurement inputs to realise success.

2.5.1.2 Short-term versus long-term sourcing strategies

Moore (2002:172) is of the opinion that organisations will follow a short-term multiple sourcing strategy or a long-term single sourcing strategy. He says that short-term multiple sourcing will have the following benefits:

- Competition between suppliers improves all aspects of the purchase such as price, delivery and quality;
- Continuity will be an advantage, as the alternative supplier could continue if there is a stoppage from supplies from one supplier;
- Buyer has direct access to more market information via various suppliers;

- Competitor information is available from the alternative suppliers.

Disadvantages of multiple sourcing will include the following:

- Higher admin cost due to additional suppliers;
- Loss through economies of scale, lower volumes will provide higher pricing;
- Lack of planning and supply integration,

Moore (2002:174) mentions the following advantages of a long-term relationship:

- Win-win scenarios based on closer relationships;
- Improvement of performance over longer term;
- Economies of scale benefits.

Main disadvantages could include the following:

- Can create complacency;
- Difficult to take advantage of new technologies.

2.5.1.3 Make vs. buy strategy (own resources vs. outsourcing)

In bigger corporate environments, companies could be faced with the option to decide whether to make or buy the goods they require. This will depend largely on their competencies and core business. It could be strategically important for a company to make their own goods. However, most companies would buy goods from an external supplier based on their own limited competencies and or economies of scale benefits.

According to Leenders & Flynn (1995:115), a company may decide to make their own goods in stead of buying in the following situations:

- Quantities are too small to buy on an economical scale;
- Suppliers cannot provide the processes necessary to meet quality requirements;
- Technological secrets are protected;
- Equipment or labour would be idle otherwise;
- To avoid sole source dependency;
- It is cheaper to make than to buy;

- To smooth fluctuations in the operation.

Similarly a company may decide not to make but rather to buy based on the following reasons (Leenders & Flynn, 1995:116):

- Lack of technical expertise;
- It may be difficult and expensive to reverse a decision once implemented;
- If the process is not a core activity;
- Long-term economies of scale difficult to determine;
- Decision could affect the organisation's flexibility to change.

The strategic sourcing activities performed will vary from organisation to organisation. The organisation that successfully implements these strategic sourcing activities, however, has also empowered itself to continually reach beyond success to set new standards for others to follow (Russill, 1997:95).

The above rules and principles also apply to the supply of a service via own resources or the outsourcing of the service to a third party. In making the decision one needs to ask the question whether it is a core competence of the organisation or not. If a third party can deliver the quality service at a better price, one will have to make use of their expertise to benefit the organisation.

2.5.2 Commodity strategies

Grant (1998:62) describes a commodity as, where the products of rival firms are virtually indistinguishable, the product is a commodity and price is the sole basis for competition. Commodity industries tend to be plagued by low prices and pricing wars.

Sasol (2004:5) defines commodities as all goods and services that are purchased from suppliers. Commodities are those items required by line managers or end users to fulfil their tasks. Production for instance requires raw materials to produce their products, whilst maintenance requires spares to maintain the plant to ensure that the plant can produce according to plan. Similarly Logistics require service providers to store and distribute products according to their functional needs. All raw materials,

maintenance spares and logistic services in the above scenario are commodities. A commodity therefore plays an important role in the procurement environment.

Sasol (2004:5) has added structure and traceability to their commodities. All commodities have been through a cataloguing classification process using UNSPSC (United Nations Standard Product & Service Codes) codification. UNSPSC is a coding system used to classify commodities and is widely accepted as a standard throughout the global marketplace. This allows broad groups of commodities with similar characteristics to be categorised into commodity groups or clusters. In effect, this means that the sum of all commodity clusters is equal to the total purchased from external suppliers.

According to Sasol each cluster is different; one business unit (BU) might procure some clusters, whilst other BU's may procure others. An awareness of this usage pattern provides a way to assess the cross divisional impact of a cluster. The size of a cluster's spend and the nature of the cluster also indicates the strategic impact that it has on the group or the specific BU. Clusters have been allocated to be managed by procurement.

Implementation of a standardisation programme:

According to Moore (2003:164), an initial starting point would be to investigate and find examples of products or services where there are a large number of varieties of products or services being bought. This investigation can take months, but the starting point should be to analyse supplies of products or services according to the procurement targeting model which categorises products and services bought on the basis of value and risk. A standardisation programme should attempt to tackle the high-value high-risk items first, as these will produce the greatest gains.

2.5.3 Vendor strategies

Any supply management department typically will have a continuum of supplier relationships. According to Burt et al. (2003:501), these relationships could vary from arm's-length through collaborative to strategic alliances. The latter two types of relationships are becoming more common.

Burt et al. further suggest that several actions must be taken to ensure the success of each supply relationship. Supply managers should select and tailor appropriate actions when planning the management of collaborative relationships. For example:

- Ideally, an internal cross-functional team should be established to develop and manage plans, facilitate integration, and develop and manage appropriate metrics.
- Appropriate cross-functional team members at both the buying and the selling firms should receive training in being constructive team players.
- An internal team composed of representatives of both firms should be formed. Members should jointly receive training in cross-functional team skills.
- The two firms must develop an integrated communication system responsive to the needs of both parties in the area of cooperation.
- Plans to increase and measure trust between the two organisations should be developed and implemented.
- Arrangements for co-location of key technical personnel and for periodic visits to each other's facilities should be developed and implemented.
- Plans should be developed and implemented for training on issues, including the designing of variance out of products and processes, quality, supply management, value analysis and engineering, strategic cost analysis, activity-based cost management, etc.
- Measurable quantifiable objectives must be established in areas, including quality, cost, time, technology, etc.
- The results of such improvement efforts must be monitored and reported to appropriate management.
- Ethics should win over expediency.
- Internal team members and others who are closely involved must recognise the need to change their orientation from adversarial to collaborative.
- Internal team members should become champions who ensure that their organisations understand and support the alliance's goals.

2.6 World class purchasing

According to Burt et al. (2003:1), "the World Class supply management philosophy reflects those actions and values responsible for continuous improvement of the design, development, and management processes of an organisation's supply system, with the objective of improving its profitability and ensuring its survival, as well as the profitability and survival of its customers and suppliers." Burt et al. (2003:6) further state that the philosophy of World Class Supply Management requires change driven by upper management to shift decision-making processes from an internal department or single company focus toward optimisation of the supply chain.

World Class procurement enables companies to maximise their bottom line. It lowers their input costs and contributes towards improving shareholder's value.

2.6.1 Benchmarking

A key development in Western World business practice during the late 1980's and the 1990's has been the use of benchmarking. The process builds on the principles of Kaizen as it involves learning about best practices of other organisations and subsequently making change for improvement that will enable the organisation to meet or beat the competition (Moore, 2002:211).

The focus should be on choosing benchmarks which will improve relationships between suppliers and customers and ultimately contribute to business improvement.

2.6.2 Continuous improvement

The concept of best practice and the ability to benchmark against best practices via resources such as Internet, global indices and consultants specialising in benchmarking have enabled organisations to reach beyond their own capabilities. Organisations can now measure their progress against a "best in class" and improve accordingly.

In today's competitive environment organisations need to improve continuously to ensure that they are competitive. According to Thompson & Strickland (2003:397), best practices and continuous improvement programmes involve re-forming the corporate culture and shifting to a total quality/continuous improvement business

philosophy that permeates every facet of the organisation. Melnyk & Denzler (1996:111) gave a more simplistic view. According to them, every day, the firm must try to be better than it was the day before. It is therefore argued from a strategic point of view, that procurement does have an important role to play in the process of continuous improvement. Procurement needs to improve input cost and reduce the risk associated with supplies to the business.

2.6.3 Total cost of ownership (TCO)

According to Badenhorst-Weiss et al. (2003: 67), total cost of ownership is defined as the sum of all expenses and costs associated with the purchase and use of equipment, materials and services. The above definition of Badenhorst-Weiss et al. are in line with the following statement from Melnyk & Denzler. Melnyk & Denzler (1996:154) consider total cost analysis as the sum of all costs and benefits. According to them cost-benefit analysis weighs benefits against cost.

Burt et al. (2003:166) state that ownership costs are both quantitative and qualitative, and may include the following:

- Product usage or consumption volumes and cost;
- Throughput and other time saving benefits;
- Output quality;
- Cost of waste factors;
- Cost of downtime;
- Cost of scheduled maintenance;
- Cost of other breakdowns and repairs;
- Cost of logistics.

Figure 2.2 below explains TCO in a more simplistic way. It indicates the size of the commodity optimisation potential when changing from a pure price focus to a TCO approach. Trying to gain value by focusing on commodity price is just the "tip of the iceberg."' The transition needed to managing a commodity with a "big picture" mentality as opposed to a traditional limited view is the essence. Sasol (2004:11) states that the aim of TCO analysis is to identify, quantify, and ultimately reduce the overall total cost associated with Sasol's ownership and use of a commodity.

Leenders & Flynn (1995:135) similarly recommend that procurement strategies should include total cost of ownership, life cycle costing, activity based costing, and other cost modelling techniques and concepts to support the negotiator's cost cutting goals.

Figure 2.2 – TCO Iceberg

Source: Adapted from Sasol Strategic Sourcing Guideline, "The NetGain Philosophy"

According to Burt et al. (2003:159), to achieve World Class Supply Management, managers must shift their focus from price to total cost. Sales and total cost have a direct impact on the bottom line of an organisation. In today's highly competitive business environment, the competition between organisations is overwhelming. To increase sales is not a mere formality, although some industries still have to be exploited and developed. There is therefore a lot of pressure on organisations to reduce their costs.

According to the Badenhorst-Weiss et al. (2003:67), organisations often find it difficult to move away from the purchase price focus to a focus on the total cost of ownership. The reason for this is that management often concentrates on short-term financial benefits such as staying within an annual budget rather than considering a

long-term benefit approach. Badenhorst-Weiss et al. further state that total cost of ownership is more difficult to implement than the purchase price and that it may discourage some organisations from using it as a purchasing benefit option.

2.6.4 Supplier performance

Traditionally procurement has been separated from the organisation's customers. New business philosophies, such as the supply chain concept, have enabled procurement to become an integral part of the business. This has enabled the business to utilise the strengths of their suppliers. Thus, the performance of suppliers is becoming more and more important to organisations. Suppliers can be viewed as an enabler to improve customer service levels. Ellram & Birou (1995:3) argue that high quality, reliable goods and services often directly affect customer satisfaction. A supplier also plays an important role in the organisation's strategy to outperform competitors.

2.6.4.1 Supplier development

Organisations should maximise the potential of their suppliers. A company can only be as good as its suppliers. Poor performance by suppliers will have a negative impact on a company's service levels to its customers, whilst good service will enhance the service offerings to its customers.

When a supplier is incapable of meeting the needs of the company, the buying company has three options (Burt et al. 2003:512):

- Change the sourcing strategy and produce the goods internally;
- Re-source from a more capable alternative supplier;
- Develop the current supplier to improve its potential.

2.6.4.2 Supplier performance measures

One way of developing a supplier is to measure the supplier's performance according to mutually agreed service levels. Performance measures are becoming more critical for the procurement function; as it enables managers to measure the value add of their suppliers. According to Moore (2003:37), the aims of contractual performance measurement are to:

- ensure that there is a consensus between individual, departmental and corporate aims and objectives;
- compare actual with planned performance;
- ascertain the causes of poor performance and provide a basis for improvement;
- identify the contribution of purchasing to the results achieved by the organisation;
- Provide an incentive to efficient purchasing and to maintain highly-motivated staff.

2.6.4.3 Performance matrix

To measure the performance of a supplier is easy, however, to determine the right things to measure could be more complex. It is important to understand that supplier measurements should drive the correct behaviour. Companies should therefore measure only those aspects that has a direct impact on the service and that could add value if it is improved.

A performance matrix is a documented framework that will allow the buyer to manage the supplier according to a set of predetermined objectives mutually agreed to in a service level agreement.

It is particularly important to undertake performance measurement on supply contracts. Procurement therefore needs to assess the outputs of the contract to determine whether or not the contract is a success.

The following procurement measures are suggested by (Lambert & Stock, 1994:488):

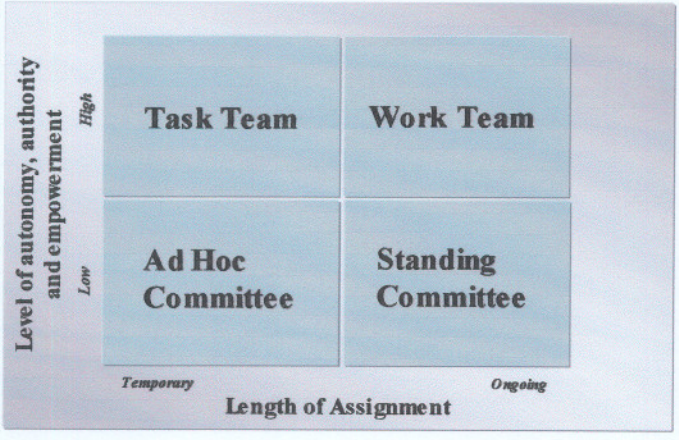
- Percentage on time deliveries;
- Downtime caused by vendor errors;
- Receiving of partial shipments;
- Product failures causes by supplier material defects;
- Quality rejects at point of receipt;
- Deviations to specifications.

More important, however, and not mentioned in the literature, is to allow the supplier also to measure the performance of the buying company. Do they pay on time? Are they reasonable in their request for certain deliverables? A good supply relationship is dependant on mutual cooperation and understanding.

2.6.5 Functional role players

The success of a procurement department is dependant on their ability to utilise knowledge and information from other functional role players. End-users typically dictate the quality and service of supplies that is required based on their technical knowledge and experience. The way in which a procurement department manages the internal relationships with other functional role players, will influence supply efficiencies directly. Ellram & Birou (1995:88) suggest the following framework for the management of internal relationships to support the procurement function in achieving optimal success, refer Figure 2.3 below.

Figure 2.3: Framework for Managing Relationships



Source: Ellram (1994:88)

An ad hoc committee consisting of role players from all functions involved in need of supplies could typically evaluate suppliers. The length of the assignment will be short and the level of autonomy, authority and empowerment will be temporary. More complex supply scenarios could be managed via the creation of a work team as the ultimate solution to ensure success. A work team will be used where there is a need

for ongoing supplies and the level of autonomy, authority and empowerment required is high.

According to Badenhorst-Weiss et al. (2003:143), possible benefits resulting from cross-functional teams could include:

- Synergy;
- Utilisation of all possible resources and knowledge;
- Time compression;
- Enhanced problem resolution;
- Improved negotiations;
- Improved communication and cooperation.

Badenhorst-Weiss et al. (2003:144) further state that cross-functional teamwork is not always easy and the following are typical challenges that a cross-functional team faces, and needs to overcome to ensure effective procurement:

- Additional investment in scarce resources;
- Role conflict between members from cross-functional areas;
- Overloading of key team members;
- Continuity;
- Rewards.

2.6.6 End-user needs

Not only does the procurement department need to understand the business requirements, but they must also challenge the needs of the end users. This step in the process is critical, as it provides the basis for supply market analysis and negotiation, and the approach also reflects internal customer requirements. According to Badenhorst-Weiss et al. (2003:109), the challenges in collecting the data required from end users include:

- Infrastructure constraints such as processes and procedures, inadequate technology and little or no training of employees;
- Institutional culture such as the "use it or lose it" approach regarding budgets and decisions not made by the right people;

- Lack of buy-in based and perceptions such as "just do what I tell you" or "it will never work."

The procurement department must fully understand the supply demand drivers as they need to:

- Determine buying decisions and characteristics and rate them;
- Align them with business directions and client industry trends;
- Consolidate and validate customer characteristics, strategies, growth rates and industry trends that could impact on future requirements;
- Identify opportunities for improvement via standardisation or rationalisation.

2.6.7 Black economic empowerment (BEE)

BEE is a governmental initiative with the objective to rectify the unequal distribution of income and wealth and to promote Black participation. The South African BEE Committee came up with an Integrated National BEE Strategy, which provides a framework for economic growth with Black participation as a fundamental pillar. BEE rests on the four pillars of Transformation: Employment Equity, Skills Development, Affirmative Procurement and Corporate Social Responsibility.

According to the Purchasing Digest (2002:59), South Africa still has one of the most unequal distributions of income and wealth in the world. Black participation in the national economy is still at an extremely low level and it states that procurement experts hold the key to unlocking the complicated and sometimes frustrating challenges faced by BEE individuals and companies.

2.6.8 Reduction in the number of suppliers

The number of suppliers on the records of the organisation will have an impact on the administration load of the procurement department. A reduction in the number of suppliers could therefore reduce the administration burden of a procurement department. Moore (2003:165) suggests that this element of strategy can be linked to the standardisation programme, as the adoption of common products or services can lead to the sourcing of one supplier for each item. This may, of course, represent too great a risk to do immediately, since a single supplier may not be trusted to ensure

supply. The standardisation programme could therefore also be linked to a dual sourcing policy, whereby two suppliers can be selected for the product or service in question.

The above is based on the assumption that most companies have too many suppliers on their supply base. The ideal, however, is to have a right size supplier base. As stated above by Moore, too many suppliers could create an administration burden. Similarly a too lean supplier base could disallow the company opportunities that could improve supply efficiencies.

CHAPTER 3

SUPPLIER RELATIONSHIPS

3.1 Introduction

In this chapter, supplier relationships will be examined. Supplier relationships are vital to successful procurement. During the days of traditional reactive purchasing, relations between the salesperson and the buyer were reasonably cordial, but frequently adversarial (Burt et al. 2003:79). Interaction between the two parties were characterised by manipulative tactics from both sides and often resulted in a gain for one and a loss to the other.

In the modern procurement environment relationships play an important role in the success of the supply chain. A good understanding of supplier relationships is critical for the creation of vendor strategies.

3.2 Buyer-supplier relationships

Traditionally, purchasing has been transaction focused, getting the right quantity and quality of goods of all kinds to the right place at the right time at the lowest price possible. This approach is insufficient in today's competitive environment, as buying goods at the cheapest price without a strategic objective is a recipe for disaster (Carter et al. 1998:22).

Moore (2003:171) argued that, in a relationship based on a lack of trust, suppliers are dealt with on an "arm's length basis." Traditional multiple sourcing strategies are still widely used, where the buying organisation chooses the source of supply from a number of different suppliers. The benefits would appear to be as follows:

- Competitive Pressure, competition between suppliers improves all aspects of the purchase, such as price, delivery and quality. Competition also increases the buyer's negotiating power through better information and threat of loss of business.
- Supply Continuity, multiple sources of supply provides alternative sources in the event of supply stoppages.
- Market Intelligence, contact with more than one supplier increases the amount of information available. The buyer has direct access to market development

information. Multiple sources therefore enhance the buyer's ability to take advantage of market changes such as new technologies and new products.

- Supplier Appraisal, direct access to comparable data from competitors greatly simplifies the task of supplier monitoring and appraisal.

Moore (2002:172) highlighted the following disadvantages associated with short-term multiple sourcing:

- Loss of economies of scale - it is quite common to organisations to have little control over their purchasing, particularly when there are no specialist buyers employed by the organisation. As a consequence, the organisation will have a number of different suppliers for the different goods and services which are bought. When this is the case, the supplier will be receiving lower volumes of business compared to the whole, and this will usually be on a short-term basis. The buying organisation will be paying additional costs because of the loss of economies of scale.
- Additional administrative expenses - more suppliers will inevitably mean more orders, and, therefore, higher administrative expenses. More time will be spent on non-value-added activities, such as expediting deliveries and completing contracts.
- Lack of planning - suppliers have increased uncertainty about expected future levels of business. There can be a lack of planning by both the buying and selling organisations. The lack of planning can lead to panic buying and the inability to meet short-term fluctuations.
- Lack of goodwill/trust - because of the short-term relationships which are characteristic, there is a lack of motivation by both organisations to work together in a cooperative way. This results in a lack of goodwill and trust on both sides.

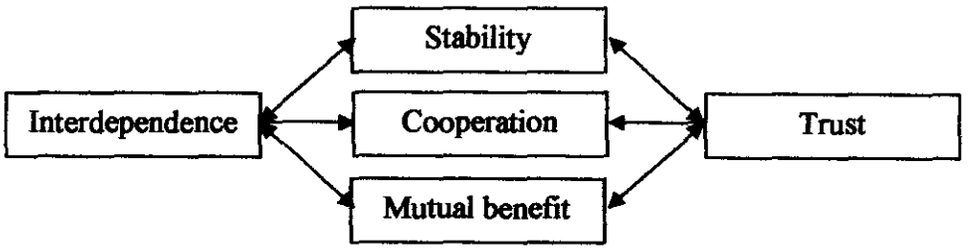
Carter et al. (1998:25) state that companies will need to manage a portfolio of relationships. Managing the relationship for results is important. Fundamental to this is trusting that each party can and will perform as agreed. Mutual trust needs to come from demonstrated performance. Performance in turn will foster growth in the relationship.

According to Cooper & Slagmulder (1999: 11–13) lean buyer-supplier relations have four major characteristics.

- The first deals with the reduction of suppliers. Lean enterprises rely on smaller numbers of suppliers than their mass production counterparts. Sustaining these tighter linkages with the suppliers requires rich relationships.
- The second deals with the level of the relationship. In the modern era the buyer needs to rely strongly on the capabilities of the supplier. This will allow the supplier to move away from a commodity supplier to a strategic supplier. Innovation abilities will enable the supplier to differentiate his offerings to the buyer.
- The third captures the nature of lean buyer-supplier relationships. This is characterised by interdependency. The buyer relies on the supplier for design expertise and innovation, whilst the supplier relies on the buyer for business and technical support.
- The final characteristic looks at the way that organisational boundaries are blurred as the firms begin to share resources dynamically. Cooper & Slagmulder are of the opinion that lean buy-supplier relationships could share employees, other resources and make dedicated investments in the relationship to benefit the other firm.

Cooper & Slagmulder argue that once the right types of relationships have been developed, the two firms can take advantage of the relationships and can begin to manage inter- organisationally. Cooper & Slagmulder further refer to interdependence as the glue of the relationship and to trust as the enabler that will ensure that mutual benefits are achieved, refer figure 3.1.

Figure 3.1 – Nature of buyer-supplier relations



Source: Cooper & Slagmulder (1999:12)

3.3 Supplier types

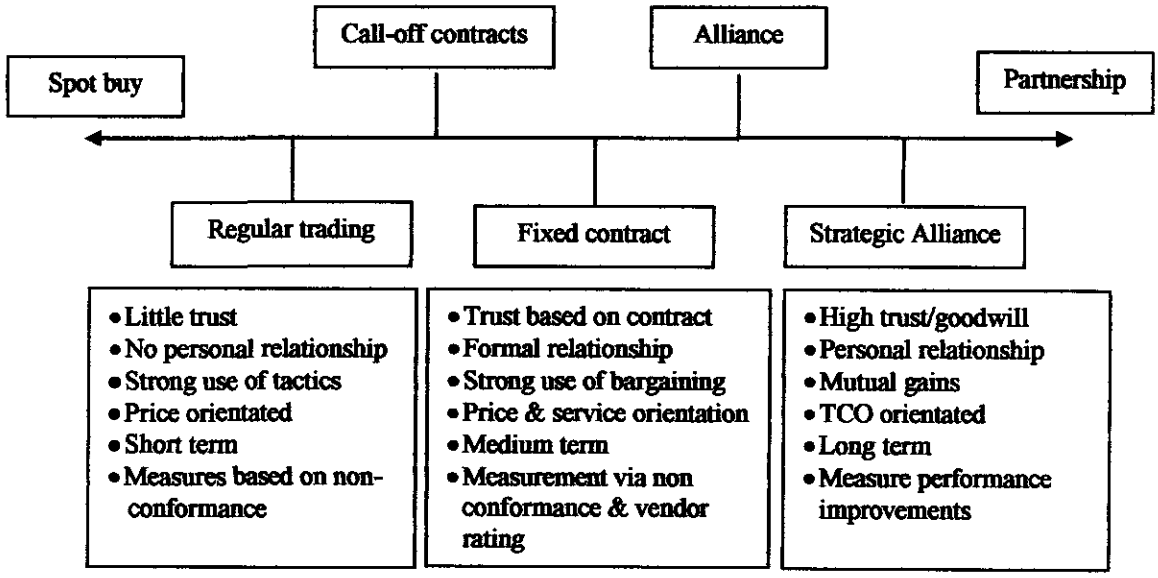
Leenders & Flynn (1995:66) differentiate between the following suppliers:

- Traditional suppliers with an emphasis on price;
- Preferred suppliers selected based on price, quality, delivery, etc;
- Certified suppliers selected on their integrated quality control abilities;
- Pre-qualified suppliers based on vendor list approval;
- Strategic alliances and supplier partners based on common strategic objectives.

3.4 Relationship continuum

Moore (2002:177) refers to a spectrum of different types of relationships which can be entered into. The relationship continuum, refer figure 3.2, starts with spot buying that is considered to be the most remote relationship and develops towards regular trading, fixed contracts, strategic alliances and eventually ends in the most advanced form of a supply relationship, which is a partnership.

Figure 3.2 - The relationship continuum



Source: Moore (2002:177)

According to Ray (2004:5), "regardless of where you are on the supply chain continuum, mastering the relationship management component can only accelerate the objective that most companies have to gain a competitive advantage in their field." Relationship management, in this sense, can simply be described as "moving people in the right direction", or "collaboration within the supply chain."

Ray states that "this seemingly basic blocking and tackling strategy for effective supply chain management may sound simple; however, research has shown that most companies fail to recognise relationship management as a core competency, and many outsourcing failures have occurred due to a lack of a bona fide relationship management process."

Ray further states that "mastering relationship management has a lot to do with listening, learning, and understanding others, as well as the dynamics associated with developing and sustaining a collaborative relationship."

Systematic approach

A systematic approach to processes designed to produce results is critical to achieving performance excellence. When you think about it, most of us have systematic processes to buy and sell our products and services, but how many of us have systematic processes to manage relationships that are crucial to performance results?

According to Ray, "as more organisations look toward managing the entire supply chain as a way to improve financial performance, customer and supplier relationships will not only require leaders who can cultivate effective human connections, it will also require leaders who have the ability to develop systematic processes that integrate organisations' core functions.

"The integration of these core functions can only be sustained by a structure around information-sharing, common goals, joint planning, sharing of risks and rewards, trust, and open communication.

"Many companies have already begun the transition from the old-school approach to managing effective supply chains to what is a new age of leadership for greater shareholder value and are realising the power of this approach."

3.4.1 Spot buying

Spot buying refers to the practice of buying individual requirements as a series of one-offs. Goods and services are bought on a basis of "as and when required."

3.4.2 Partnering

The idea of a partnership approach is to create win-win solutions for both the buyer and the supplier. Bantock (2004:6) states that companies that adopt an 'I win, you lose' mentality will generally force service providers into a 'closed book' culture of engagement.

The partnership relationship is considered to be the most advanced supply relationship. In this instance there is a common drive by both parties towards achieving the same objective. According to Moore (2002:178), both the purchaser and the supplier and other organisations involved in the supply chain may be working together to reduce total costs and improve the quality of the product or service. The organisations involved are striving to achieve world class standards and there is a strong element of co-destiny in the relationship as the purchaser and supplier are working closely together on both short and long-term goals.

As firms develop open relationships built on trust and collaboration, the purchasing firm shares information on forecasts, schedules, the way purchased items integrate into its product or process, and so on. The supply partner shares information on its design, production, and quality processes and on its design and production costs (Burt et al. 2003:416).

3.5 Partnering relationship classification

Ellram & Birou (1995:108) developed a four-way classification model of partnering. This model is shown in Figure 3.3 and is based on:

(i) The nature of the desired benefit, and

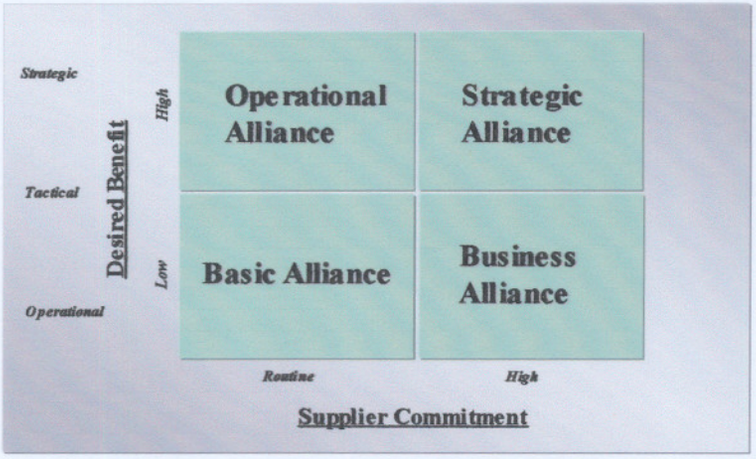
(ii) The nature of supplier commitment required.

In the above classification model Ellram & Birou suggests:

(i) The greater the desired benefits, and

(ii) The greater the degree of supplier cooperation needed, the closer the relationship must be to the strategic alliance that is considered as the end of the relationship continuum.

Figure 3.3 - Partnering classification



Source: Ellram (1995:108)

3.6 Impact of relationships on supplier base

According to Ellram & Birou (1995:116), supplier reduction will be the result of alliance development. She further states that supply base rationalisation is an important way to lower costs and streamline management of supplier relationships. Benefits could include:

- Reduction of cost;
- Improve service offering;
- Allow better management of quality;
- Reduce and simplify administration burden;
- Enable the development of better relationships.

3.7 Relationship strategies

Kraljic (1983:109-117) argued that a company's need for a supply strategy depends on two factors:

(i) The strategic importance of purchasing in terms of the value added by product line, the percentage of raw materials in total costs and their impact on profitability, and

(ii) The complexity of the supply market measured by supply scarcity, pace of technology and/or materials substitution, entry barriers, logistics cost or complexity, and monopoly or oligopoly conditions. By assessing the company's situation in terms of these two variables, top management and senior purchasing executives can determine the type of supply strategy the company needs both to exploit its purchasing power vis-à-vis important suppliers and to reduce its risks to an acceptable minimum.

3.7.1 Supply relationship approach

During 1983 Kraljic provided direction for supplier relationships by introducing the first comprehensive portfolio approach for the determination of supplier relationships. Today this model still proves to be very relevant in the modern procurement environment, as some of the most relevant literature still refers to the Kraljic model.

The Kraljic methodology, refer Figure 3.4, is based on the following concepts:

- Complexity of the supply market – Criteria: Scarcity, monopoly/oligopoly conditions, pace of technology advance, entry barriers and logistical constraints (X – axis);
- Importance of purchasing – Criteria: Cost of purchases/purchasing value (Y – axis).

Based on the above two axis, a framework of four quadrants is drawn up that includes:

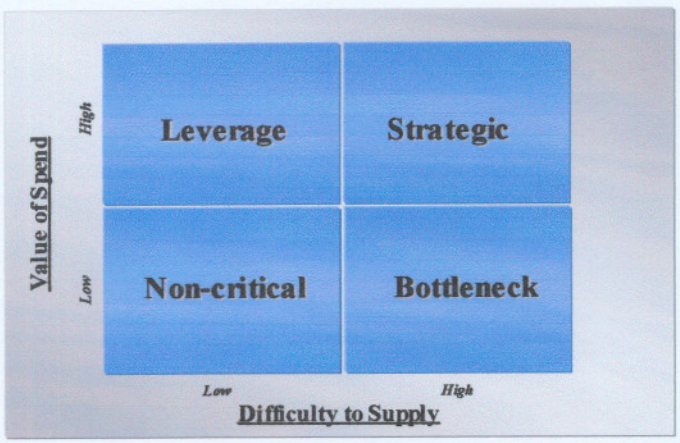
- Strategic items (high profit impact, high supply risk);
- Bottleneck items (low profit impact, high supply risk);
- Leverage items (high profit impact, low supply risk);
- Non-critical items (low profit impact, low supply risk).

Suppliers are now allocated to one of the above four strategy quadrants by the buying company according to how they view the supplier in terms of the criteria,

(i) complexity of supply, and

(ii) importance of purchasing

Figure 3.4 - The Kraljic relationship model



Source: Kraljic 1983

3.7.2 Supply strategy framework

Supplier potential differs, as a result of their:

- Access to resources;
- Location;
- Infrastructure;
- Cost structure that includes price and profit margins;
- Vision, strategies and objectives;
- Management and culture;

Buyers need to understand the above, as it will enable them to utilise the full potential of the supplier. Kraljic states to minimise their supply vulnerabilities and to make the most of their potential buying power, a number of world class companies have successfully used the four-stage approach to develop strategies. The approach has given them a simple but effective framework for collecting marketing and corporate

data to identify available purchasing options, as well as for developing individual supply strategies for critical items and materials.

The supply strategy approach involves:

(i) The company first classifies all its purchased materials or components in terms of profit impact and supply risk;

(ii) Next it analyses the supply market for these materials;

(iii) Then it determines its overall strategic supply position;

(iv) Finally, it develops materials strategies and action plans.

From a buying point of view cost of the materials and or service and difficulty to supply are the most important aspects. Price or input cost affects the profitability and future existence of the company, whilst difficulty to supply is dealing with the scarcity of items and availability, as well as other risks associated with it. These factors can be seen as core considerations for evaluating a product or service.

3.7.3 Shaping the supply strategy

Kraljic (1983:112-115) explains the detail of his four stage approach as follows:

3.7.3.1 Classification

Supply risk is assessed in terms of availability, number of suppliers, competitive demand, make-or-buy opportunities, and storage risks and substitution possibilities. Using these criteria, the company sorts out all its purchased items into the categories shown in Figure 3.4.

Each of these four categories requires a distinctive purchasing approach, whose complexity is in proportion to the strategic implications. The company may need to support supply decisions of strategic items with market analysis and risk analysis via the utilisation of computer simulation and optimisation models, price forecasting, and various other analysis. Decisions about bottleneck items may require specific market analysis and decision models for resolution, while vendor and value analysis, price and other decision models may be considered for the purchasing of leverage materials. Where non-critical items are concerned, simple market analysis, decision

policies, and inventory optimisation models will normally suffice. The author supports the above, but is of the opinion that standardisation and automation could further enhance the efficiencies with regard to the purchasing of non-critical items.

Shifts in supply or demand patterns can alter a material's strategic category. Therefore, any purchasing portfolio classification calls for regular updating.

3.7.3.2 Market analysis

During the second phase the company weighs the bargaining power of its suppliers against its own strength as a customer, refer Table 3.1. It systematically reviews the supply market, assessing the availability of strategic materials in terms of both quality and quantity, and the relative strength of existing vendors. The company then analyses its own needs and supply lines to measure its ability to get the kind of supply terms it wants.

Table 3.1 Purchasing Portfolio Evaluation Criteria

	Supplier strength	**Company strength**
1.	Market size vs. supplier capacity	Purchasing volumes vs. capacity of main units
2.	Market growth vs. capacity growth	Demand growth vs. capacity growth
3.	Capacity utilisation or bottleneck risk	Capacity utilisation of main units
4.	Competitive structure	Market share in relation to main Competition
5.	ROI	Profitability of main end products
6.	Cost of price structure	Cost of price structure
7.	Break-even stability	Cost of out of stock
8.	Uniqueness of product and technological stability	Own production capability or integration depth
9.	Entry barrier	Entry cost for new sources cost for own production
10.	Logistics solution	Cost of logistics

Source: Kraljic (1983)

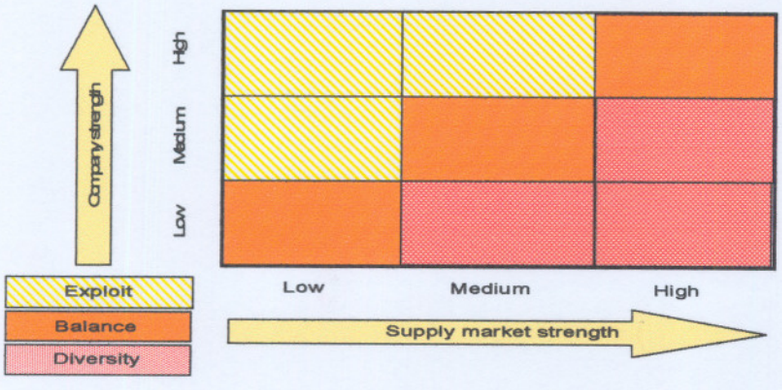
The relative importance of different criteria may vary with technological change or with shifts in the industry's competitive dynamics. Careful definition of the criteria of both supplier and company strength is a prerequisite to accurate market analysis.

The author agrees with the information supplied in the purchasing portfolio criteria but feels that Kraljic also needs to address other issues such as; the potential of the supplier to integrate with the buying company, total cost of ownership and location of supplier and the buying company. Internet is enabling companies to purchase globally, yet these companies still will have to have the right products available on their premises for production purposes. Location of the supplier will influence cost of logistics and supply lead times that in return will have a direct effect on stock holding, production efficiency and profit margins of the buying company and should be a consideration.

3.7.3.3 Strategic positioning

During phase three the company positions the materials identified in phase one, as strategic in the purchasing portfolio matrix, refer Figure 3.5. It can then identify areas of opportunity or vulnerability, assess supply risks, and derives basic strategic thrusts for these items. The purchasing portfolio matrix plots company buying strength against the strengths of the supply market and can be used to develop counterstrategies in relation to key suppliers.

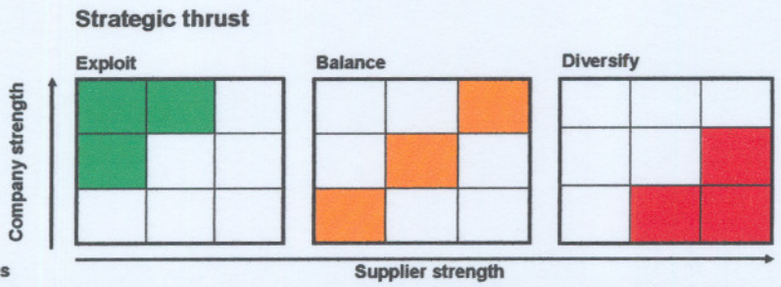
Figure 3.5 Purchasing portfolio matrix



Source: Kraljic (1983:114)

According to Kraljic the cells in the purchasing portfolio matrix correspond to three basic risk categories, each associated with a different strategic thrust, refer Figure 3.6.

Figure 3.6 Strategic thrust (Implications of purchasing portfolio positioning)



Policy Issues			
Volume	Spread	Keep or shift carefully	Centralize
Price	Press of reductions	Negotiate opportunistically	Keep low profile
Contractual coverage	Buy spot or cover with constant call off's	Balance contracts and spot	Ensure supply through contracts
New suppliers	Stay in touch	Selected vendors	Search vigorously
Inventories	Keep low (JIT)	Use stocks as "buffer"	Keep insurance stocks
Own vs. outsource	Consider outsourcing	Decide selectively	Own service
Substitution	Stay in touch	Pursue good opportunities	Search actively
Value engineering	Impose on supplier	Perform selectively	Start own program
Logistics	Minimize cost	Optimize selectively	Secure sufficient stocks

Source: Adapted from Kraljic(1983:115)

Basic risk strategies are:

(i) Exploit strategy is applied to items where the company plays a dominant market role and suppliers' strength is rated medium or low, a reasonably aggressive strategy "exploit" is indicated. Because the supply risk is slight, the company has a better chance of achieving a positive profit contribution through favourable pricing and contract agreements. Even so, it has to take care not to exploit the advantage so aggressively that it jeopardises long-term supplier relationships or provokes counter reactions by insisting on rock-bottom prices in times of market discontinuity.

(ii) Diversity strategy is suggested for items where the company's role in the supply market is secondary and suppliers are strong, the company must go on the defensive and start looking for material substitutes or new suppliers

"diversify". It may have to increase spending on market research or supplier relations, or even consider backward integration through major investments in research and development or production capacities. This indicates to the company that they have a need for alternative supply options.

(iii) Balance strategy is employed for supply items with neither major visible risks nor major benefits, a defensive posture would be over conservative and costly. On the other hand, undue aggressiveness could damage supplier relations and lead to retaliation. In this case, a company should pursue a well-balanced intermediate strategy "balance".

Kraljic further states that usually a company will find itself in different roles in terms of different items and suppliers. When it can bargain from a position of strength, it should press for preferential treatment. Bargaining from weakness, the company may have to offer inducements – longer-term contract obligations, for example, or higher prices – in order to ensure an adequate supply.

The author is of the opinion that South African companies has failed to identify the potential of the Kraljic strategic thrust model. However, Kraljic suggests in Figure 3.6 that companies should buy on spot where they have the buying power. This may not always be the case and the author feels strongly that it could vary depending on the situation. High volumes are normally associated with high importance to the business. Add quality and the service levels required by the customer, then this is asking for contractual supplies and not spot buying. Spot buying could easily lead to out of stock scenarios that could endanger production continuity. Yes, spot buying will maximise price, but TCO contribution through the supply chain could exceed price benefits.

3.7.3.4 Action plans

Each of the three strategic thrusts has distinctive implications for the individual elements of the purchasing strategy, such as volume, price, supplier selection, material substitution, inventory policy, and so on. Refer Figure 3.6.

In the short term, for strategic items where the supplier's strength outweighs the company's and the indicated strategy is diversification, the company should:

- Consolidate its supply position by concentrating fragmented purchased volumes in a single supplier:
- Accept high prices, and
- Cover the full volume requirements through supply contracts.

To reduce the long-term risk of dependence on a single source, however, the company should also search for alternative suppliers or materials or even consider backward integration to permit in-house production. On the other hand, if the company is stronger than the suppliers it can:

- Share volumes over several suppliers;
- Exploit price advantages;
- Increase spot purchases, and
- Reduce inventory levels.

During this phase, the company should explore a range of supply scenarios in which it lays out its options for securing long-term supply and for exploiting short-term opportunities, clearly define respective risks, costs, returns, and strategic implications, and develop a preferred option with objectives, steps, responsibilities, and contingency measures laid out in detail for top management approval and implementation.

The end product will be a set of systematically documented strategies for critical purchasing materials that specify the timing of and criteria for future action.

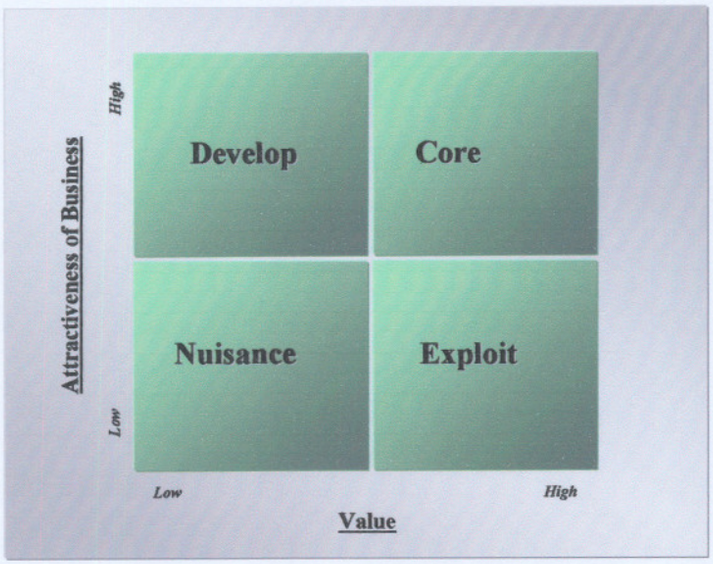
3.8 Supplier involvement

Suppliers can make significant contributions to the designs of products and services, and help reduce costs and risks. A number of key suppliers with whom you may have already developed good long-term relationships could be approached to see what improvements they may be able to suggest. A pilot project could be implemented using perhaps two key suppliers at first, before asking for greater involvement from a larger number of suppliers at some point in the future (Moore, 2003:165).

3.9 Supplier perceptions

Moore (2003:150-151) suggests that the purchase portfolio analysis is a useful tool to guide both purchasing structure and strategy. He, however, states that it should not be viewed in isolation. Consider the implications of the supplier perception matrix presented in figure 3.7 below as an example:

Figure 3.7 Supplier perceptions matrix



Source: Moore (2003: 150)

The diagram shown above can be used to represent suppliers' perceptions of purchasers. The Y axis measures the attractiveness of the purchaser's requirements; the X axis measures the value of purchases.

Nuisance: when the volume of purchasing is relatively low, infrequent or when the purchaser typically negotiates low prices, then the supplier may regard this area of business as a nuisance. The supplier will not generally allocate any significant amount of resources to the purchasing organisation in terms of sales effort or prioritisation in production. Should a purchaser try to develop a partnership-style arrangement with a supplier who may view the purchaser's business as falling into this category, then it is unlikely to be an effective arrangement.

Exploit: this category is again typified by low attractiveness of the purchaser's business but spend is significantly higher in comparison to nuisance sales. The supplier is likely to exploit the situation by a mixture of premium pricing or inadequate allocation of resources to achieve quality output.

Develop: the third quartile denotes an effective strategy for the supplier where the attractiveness of business is high, yet value of sales is comparatively low. The supplier is likely to want to develop these sales from the customer. A supplier may typically pursue a partnership relationship with the purchasing organisation, and try to provide convincing evidence of the need to work together to achieve a win-win scenario. In this way, the spend of the purchasing organisation may increase over time, if the supplier is provided with such an opportunity. The supplier is likely to allocate significant marketing effort in the form of calls made to the purchaser, promotions and discounted pricing to help develop these sales.

Core: the final quadrant refers to core business. This represents sales which are attractive to the seller and the purchaser's spend is significant. The aim of the seller is to ensure that a greater part of its turnover is accounted for by such sales.

The supplier perception matrix helps to develop the purchaser's strategy by a further degree. The purchaser needs to assess, when performing an appraisal of a supplier organisation, which of the quartiles it is likely to represent. Whilst the matrix is a subjective tool, it can be a useful means of evaluating the likely motivation of the supplier in dealing with the purchaser.

3.10 Purchasing alliances

Segil (1996:7) states that an alliance is a relationship that is strategic or tactical, and that is entered into for mutual benefit by two or more parties having compatible or complementary business interests and goals.

According to Carter & Narasimhan (1995:71), organisations are teaming up to buy items from common suppliers. The motivation is to reduce costs, leverage buying operations, and foster economies of scale.

A purchasing alliance could improve the buying power of an organisation, as it will add more volumes to offer to the common supplier. This will increase the buyer's leverage potential on the supplier. Segil (1996:11), however, warns against the misuse of the alliance concept and states that it could destroy future value if not utilised in the true spirit of joint operation to achieve mutual benefits.

Segil (1996:13) further states that though supplier-purchaser alliances use many of the same processes, diagnostics, and methodologies as other strategic alliances, they are different in a number of areas. They are characterised by inequality of bargaining positions and by the pressure on cost and quality on the one hand and on increased unit sales on the other. This could lead to non-trusting relationships.

In applying an alliance purchasing relationships all parties should therefore have the desire to create win-win scenarios for all parties involved. One-sided benefit situations should be avoided to ensure true value adding for the supply chain. According to Robert Frankel (1997:217), anecdotal evidence suggests that alliances need "trust" and "win-win" solutions to achieve a transition to cooperative relationships. Frankel further states that at the same time, firms recognise that a cooperative relationship is not a sufficient condition for successful alliance. Performance must be enhanced and specific mutual goals must be achieved.

3.11 Partnership sourcing

Carter et al (1998:25) suggest that companies will need to manage a portfolio of relationships. Companies should be wary of the hyperbole surrounding the pervasiveness of customer-supplier "partnerships." They say that even a vague commitment to "work together" qualifies as a partnership in some circles, but this falls far short. Companies need to manage types of relationships with both customers and suppliers going forward, but few such relationships will become truly rich partnerships. To move towards a true partnership situation, customer and supplier

must agree and set joint mutual goals. The management of such a relationship thereafter will be critical to the success of such a "partnership."

According to Moore (2003:175), partnership sourcing is a commitment by customers/suppliers, regardless of size, to a long-term relationship based on trust and on clear, mutually agreed on objectives to strive for world class capability and competitiveness. Partnership sourcing is therefore a long-term arrangement between buyer and supplier by which the two parties undertake to use their combined resources to better meet the needs of the customer to the benefit of both parties.

Moore argues that firms are interested in forming partnerships rather than adversarial relationships because of an extensive number of advantages. These are summarised as follows:

(i) Management

1. A reduced supplier base is easier to manage.
2. Increased mutual dependence lowers the risk of losing supply source and creates greater stability through increased supplier loyalty.
3. Reduces time spent looking for new suppliers, gathering information and obtaining quotations or competitive tenders.
4. Allows for joint planning and information sharing based on mutual trust and benefit.
5. Loyalty may increase supplier attention and customer service in areas such as:
   - lead time reliability;
   - priority in times of scarcity;
   - increased attention when problems arise.
6. Greater cooperation from suppliers to support the buying organisation's strategy.

(ii) Technology

1. Partners may be willing to share access to technology.
2. Partners may be more willing and capable of participating in product design based on knowledge and commitment to the other partner.

3. Supplier knowledge and or involvement in design may improve quality and reduce time to market for new products.

(iii) Finance

1. Partners may share business risks through joint investment, joint research and development.
2. Information sharing and better forecasting may reduce inventory levels.
3. Long-term commitment of partnership may lead to more stable supply prices.

Elijah Ray (2004:5) suggested a systematic approach to enhancing relationships, and recommends the following ten strategies that can facilitate more effective collaboration in the supply chain:

- Senior leaders must demonstrate commitment to developing relationship management as a core competency within their organisations by making it part of the company's culture. Senior leadership involvement in periodic assessments of their effectiveness is essential to success.
- Relationship management should become a critical component of a company's strategic planning process, as well as addressing how supply chain partners will work toward synchronisation.
- Supply chain partners should establish rules of engagement up-front, including expectations and relationship dynamics as a proactive approach to collaboration.
- Supply chain partners should develop levels of human connection points within their organisations to facilitate effective communication at multiple levels within each company's leadership structure.
- Partners should establish periodic reviews to assess progress against expectations. The review itself should be a systematic process with flexibility to meet changing dynamics.
- Partners should develop joint problem resolution processes to deal with incidents of non-compliance swiftly and effectively within their joint supply chains.

- Companies should develop strategies for understanding partners' strategic objectives and concerns.
- Channel partners should jointly select supply chain projects, and include the right people with the right skills as part of supply chain initiatives. Partners should closely monitor continuous improvement objectives for anticipated results, and make adjustments when projects get off track.
- Partners should specifically collaborate on the use of technology and how it can enable performance results.
- Supply chain partners should conduct strategic planning sessions with key channel participants to establish clear objectives.

3.12 Supplier development

World class procurement will require world class suppliers. Procurement must view suppliers as enablers, as you can only be as good as your suppliers allow you to be. It is therefore important to continuously develop your suppliers to allow them to improve their service and product offerings to your company.

Burt et al. (2003:518) refer to the following steps that a company can utilise to develop its suppliers:

- Identify and review performance gaps;
- Discuss specifics about how the project will be approached and implemented;
- Work to achieve mutual agreement on project focus;
- Identify processes that result in waste;
- Compare performance gaps with the desired state;
- Establish project metrics and metrics baselines;
- Gather and analyse data;
- Develop improvement strategies;
- Develop an implementation plan;
- Calculate the return on investment;
- Create and review a proposal with supplier's management;
- Execute the improvement plan.

Once a formal process is in place, one can use the Deming Cycle process of plan-do-check-act to improve supplier performance continuously as suggested by Melnyk & Denzler (1996:157).

Kobayashi (1994:123-131), a guru on continuous improvement, states that cooperation between a manufacturer and its suppliers has an important impact on the manufacturer's quality, cost and delivery. He suggests that the supplier needs to be developed through the following process:

- Initially the supplier relationship is limited to purchasing, acceptance inspections and price negotiations;
- To progress, manufacturers and suppliers must view each other as extensions of the same manufacturing flow;
- Next technical assistance is given in response to supplier queries and problems;
- To progress to a next level, form joint study groups with the supplier and link the two companies' improvement suggestion systems;
- On the next level the buying factory and the supplier factories have begun working together;
- To progress to a next level, the buying factory should provide support attuned to each supplier's circumstances, including clear and specific advice on how to further improve;
- Ultimately the two parties are working closely and solidly together.

CHAPTER 4
SASOL POLYMERS PROCUREMENT

4.1 Introduction

In this chapter Sasol Polymers' procurement structures, governance policies and strategies, as well as relationships with selected suppliers will be examined, as this will provide the framework for the implementation of vendor strategies within the Sasol Polymers Division.

4.2 Sasol Group procurement

According to the Sasol Procurement Governance Policy document dated 23 June 2004, Sasol PSM has the prime responsibility of managing the total group external spend.

The PSM governance document further states: "With regard to suppliers and business partners PSM acknowledges that we can only achieve our objective of earning maximum returns for our shareholders if we enjoy the loyal and unwavering support of our suppliers, contractors and business partners.

"PSM views our relationships with suppliers, contractors and business partners as mutually beneficial partnerships in which all parties integrate their talents, resources and efforts to exceed expectations, whilst continuously striving to do better." This extract from the governance document shows Sasol's intent to transform, as prescribed in the literature study, from the old school approach to managing effective supply chains to what is a new age of leadership for greater shareholder value add.

PSM is committed to:

- Honouring vendor payment agreements;
- Communicating with suppliers on the way Sasol is going;
- Having a standardised open approach with all our suppliers;
- The development of Black Economic Empowerment of suppliers, in accordance with the Sasol Black Economic Empowerment Procurement Policy (refer to BEEP Policy);

- Managing and protecting supplier information in accordance to the Sasol Supplier Information Policy (refer to Supplier Information Policy);
- Clear and transparent procurement procedures, policies and evaluation criteria;
- Establishing long-term relationships with our key suppliers".

The Sasol PSM governance structure, a top down approach, incorporates the following:

- Level 1 - Sasol values
- Level 2 - Sasol code of ethics
- Level 3 – Behaviour (PSM vision, value and code of ethics)
- Level 4 – Functional responsibilities
    - Spend analysis
    - Strategic sourcing
    - Purchasing price adjustment
    - Benefits calculation
    - Black economic empowerment procurement
    - Supplier rating
    - Inventory
    - Technology
    - People development
    - Risk management
- Level 5 – Definition of victory (DOV) reflecting measurement and reporting

4.2.1 Spend analysis

PSM is responsible for analysing the total external spend, to manage Sasol's spend on a proactive basis in order to know what the spend per commodity cluster will be and to align the benefits accordingly. The purpose of spend analysis is to calculate:

(i) Spend per BU per annum and to monitor movement in spend year on year;

(ii) Spend per commodity and movement in spend per commodity cluster year on year.

According to Sasol PSM the spend analysis helps to:

- Put Sasol PSM benefits in context;

- To show BU's where there was abnormal increases/ decreases in spend;
- Support the budgeting process;
- Culmination of being a value-adding partner;
- Ensure that procurement efforts are better than market movements.

4.2.2 Sasol strategic sourcing

The Sasol Procurement Governance Policy states that the strategic sourcing process is PSM's instrumental strategy for management of external spend. Strategic sourcing is a business optimisation process and aims to transform PSM into a dynamic and highly progressive strategic function. It adds significant value by making use of cutting edge research and innovation, understanding economic trends and using world class standards on a continuous and sustainable basis. Strategic sourcing is hosted by PSM and the process is designed to interface with all levels and functional areas in Sasol.

The total Sasol external spend has been clustered into groups of commodities based on United Nations Standard Products & Services Codes (UNSPSC) coding, size of spend and the cross-divisional strategic impact of the commodity. From the various commodity clusters, Group Strategic Sourcing Teams (SST) manage commodities that have impact across more than one BU (i.e. Group-wide impact). Commodities that impact only a specific BU are managed by either BU specific Strategic Sourcing Teams or BU own procurement. Group Strategic Sourcing, BU specific Strategic Sourcing and BU own procurement would therefore each be responsible for performing the strategic sourcing function for their own portfolio of allocated clusters.

Strategic Sourcing was initiated by the NetGain process. The NetGain process involves Total Cost of Ownership (TCO) analysis and management, industry analysis and market research, global strategic sourcing, opportunity identification and development, intensive stakeholder involvement, implementation of opportunities identified, measurement and tracking and a high level of senior management support. The Sasol Procurement Governance Policy further states that "Our PSM governance framework is aimed at adding value, maximising returns and safeguarding the people, assets and reputation of Sasol."

Based on PSM's standardised price benefit measuring methodology, procurement index models have been developed per region, reflecting the movement in market prices of more than eighty percent (80%) for Sasol SA and USA, Germany and Italy's combined external procurement expenditure.

South Africa's procurement index model will be used to manage the price adjustments of:

- The Group strategic sourcing team's spend; and
- The following business units:
  - Sasol Synfuels;
  - Sasol Mining;
  - Sasol Polymers, and
  - Sasol Nitro.

4.2.3 Sasol procurement strategic focus areas

Sasol PSM has agreed and commits to the following strategic focus areas:

- Procurement strategies;
- Supplier relationship strategies;
- End-user relationship strategies;
- Inventory strategies;
- Organisational development strategies;
- Business process strategies;
- PSM operating expense management;
- Integrated PSM risk management strategies;
- Measuring and reporting.

4.3 Sasol Polymers divisional procurement

Sasol divisional procurement structures are standardised, minor structural differences occur within divisions to cater for business unique requirements, refer Exhibit 2. The PSM Manager of each division reports to the General Manager (GM), responsible for that specific division.

The Sasol Polymers PSM structure only deviates from the Sasol Group PSM standard structure based on their unique situation of two material management sites, the one at Secunda and the other at Sasolburg. The Sasolburg material management function is outsourced to Infrachem, an internal partner, whilst the Secunda function is managed by a materials handling manager who reports to the demand manager responsible for the demand function at both sites. The Infrachem relationship is managed according to a formal internal partner agreement (IPA) between PSM Sasol Polymers and Infrachem.

Sasol Polymers procurement structure is a small, centralised structure that specialises in the following core areas of external expenditure:

- Raw materials;
- Logistics;
- Maintenance materials and services.

4.3.1 Strategic sourcing

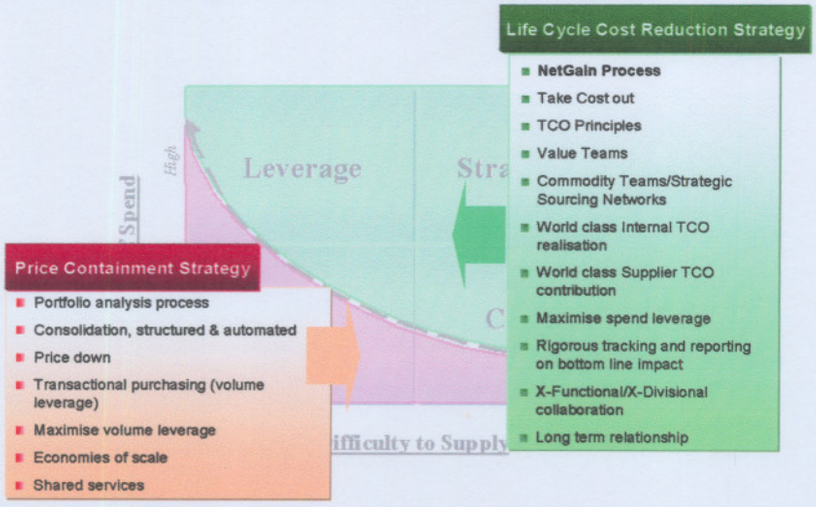
The procurement structure also has access to other specialised resources within Sasol to support them in deal structuring and the contracting processes of the above purchases. Strategic sourcing teams are utilised to support in all the above expenditure categories. Other non-contractual purchases are dealt with through the decentralised demand management structure. Demand management are further responsible for doing all the call-off's against the contracts implemented by procurement

Commodity strategies are based on the Kraljic relationship model and are in place for all those commodities that contribute to eighty per cent of the total external spend. Two key strategic elements of the commodity strategies are (i) a life cycle cost reduction strategy and (ii) a cost containment strategy. The life cycle cost reduction strategy is utilised in the higher spend categories, whilst the cost containment strategy is utilised in the lower spend categories as shown in Figure 4.1 below. There are, however, no vendor strategies in place for Sasol Polymers.

Limited guidelines exist and address Sasol Polymers sourcing strategies that include (i) single versus multiple supply options, (ii) short and long-term purchasing options,

as well as (iii) in-sourcing versus outsourcing. There is a definite preference for longer-term contracts that will enable supply chain integration. Longer-term contracting is also indicative of a preference for a single sourcing strategy. Outsourcing is considered as an alternative to the use of own resources based on core competencies that could add value to the business. Outsourcing is, however, limited to only a few. The Polypropylene plant outbound warehouse in Secunda is outsourced to a third party and is managed according to a comprehensive service level agreement. This was done based on the third party's core competence to manage warehouse and distribution functions.

Figure 4.1 Sasol PSM commodity strategy matrix



Source: Sasol (2004)

4.3.2 Spend categories

Sasol Polymers' spend is categorised in the following cost categories. External spend is accumulated against these cost categories in the SAP system:

- Logistics;
- Catalyst and process materials;
- Utilities;
- Hired Labour;
- Maintenance;
- Operating materials;
- Cost in respect of fixed assets;

- Purchased services;
- Other cost.

Some cost categories are further sub-divided into various sub-cost categories. The Logistics category is a good example, and is sub-divided into the following sub-cost categories or commodity clusters for reporting purposes:

- Road Transport;
- Rail Transport;
- Warehousing;
- Sea Freight;
- Air Freight.

Sub-cost categories are further divided into cost elements to represent cost per individual commodities. Road transport, as an example, is sub-divided into the following cost elements:

- Bulk Tankers for liquid products;
- Bulk Tankers for dry bulk;
- Walking Floor utility vehicle for dry bulk and packed material;
- Flat deck vehicles for packed material;
- Curtain railers for packed material.

4.3.3 Collection of supplier data

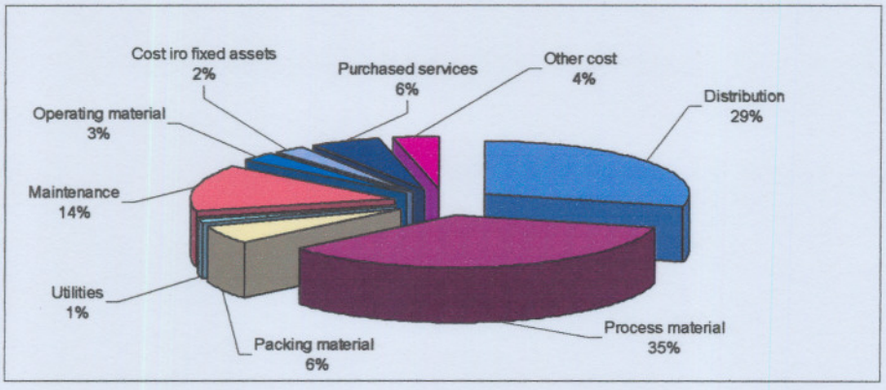
All Sasol Polymers BU data is stored on one file server and is separated by a unique plant code for each one of the five business units. Supplier data is available on the SAP system and can be extracted via (i) the SAP standard reporting tool or (ii) unique reports developed by Sasol Information Technology (IT) department. Reports are available per:

- Cost category;
- Vendor;
- Commodity clusters;
- Commodities.

4.3.4 Sasol Polymers spend analysis

A Sasol Polymers spend analysis per category was performed by extracting information from the SAP Income statement report. Process material purchases are responsible for 35% of the total spend, whilst distribution cost of the final product accounted for 29% of the total spend, the cost breakdown is reflected in Figure 4.2 below.

Figure 4.2 - Sasol Polymers spend analysis – June 2004



Source: Sasol Polymers

Similarly, a spend analysis per vendor was performed by extracting vendor data from the SAP system reflecting the following vendor data:

- Vendor number;
- Vendor name;
- Vendor spend per annum;
- Vendor spend per cost category.

Data was downloaded onto an excel spreadsheet to perform further analysis:

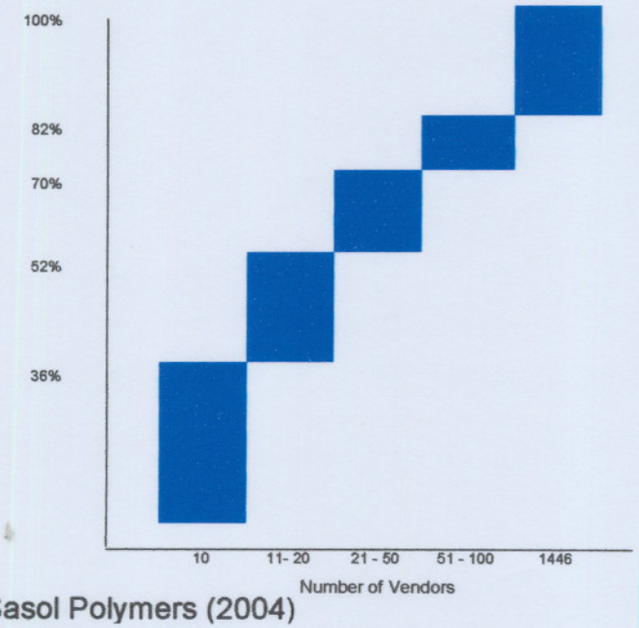
- The data was sorted according to value spend per vendor from highest spend to lowest spend, to separate the high spend vendors from low spend vendors;
- In a next level of analysis, vendors were classified into the following categories based on value spend:
  - Top 10 vendors,

- Top 20 vendors,
- Top 50 vendors,
- Top 100 vendors,
- Remainder of vendors;

- Further analysis was performed to classify vendor information per cost category, sorted from highest spend to lowest spend;.
- Supplier spend.

Based on value, the top ten Sasol Polymers vendors account for 36% of the total external purchases, whilst the top one hundred vendors account for 82% of the total external purchases, refer Figure 4.3 below.

Figure 4.3 - Vendor spend analysis based on value



Source: Sasol Polymers (2004)

4.3.5 Supplier relationships

According to the literature study a good supply relationship will depend mainly on the following conditions:

- Goodwill and trust;
- Strategic alignment of objectives;
- Economies of scale;

- Mutual gains;
- TCO orientation;
- Mutual planning;
- Long-term approach;
- Performance measurements.

A questionnaire, refer Exhibit 3, was developed to address the above criteria and it was distributed to a small selection of six important suppliers to Sasol Polymers covering the following important spend categories:

- Transport;
- Warehousing;
- Raw materials;
- Packaging.

The selected suppliers had an option to return the information anonymously, should they prefer to. The objective of the questionnaire was to determine whether there is alignment between buyer and supplier objectives.

4.3.5.1 Supplier relationship alignment

The first objective was to determine whether there is alignment between how Sasol Polymers view the suppliers, and how the suppliers view the supply opportunity with Sasol Polymers. The author is of the opinion that aligned objectives will enhance the potential for a good supply relationship. However, a secondary objective is to identify misalignment of objectives between Sasol Polymers and suppliers, as this will give the opportunity to work on the relationship to ensure future alignment. Interpretation of the questions could have played a role and was considered in the evaluation.

As a step one the supplier relationship model, adapted from Kraljic (1983), was used by the author to allocate the selected suppliers according to their importance to Sasol Polymers procurement:

- Suppliers two, three and six are considered as strategic to the business;
- Suppliers one, four and five are considered as leverage suppliers.

Question one was used to introduce the selected suppliers to the supplier perception model, adapted from Moore 2002, and the suppliers were asked how they would view their supply opportunities to Sasol Polymers, according to the perception model framework. Thus, the objective of question one was to determine whether there is alignment between Sasol Polymers' and the supplier's objectives. A match would mean that the objective of Sasol Polymers is similar to the opportunity to the supplier. For instance, where Sasol Polymers is viewing the supplier as a "leverage" supplier, and where the supplier views the relationship with Sasol Polymers as an "exploit" opportunity, refer Figure 4.4 below.

A mismatch would be where Sasol Polymers views the relationship differently to the opportunity as indicated by the supplier. A mismatch will give the opportunity to improve the relationship and remove barriers between Sasol Polymers and the supplier.

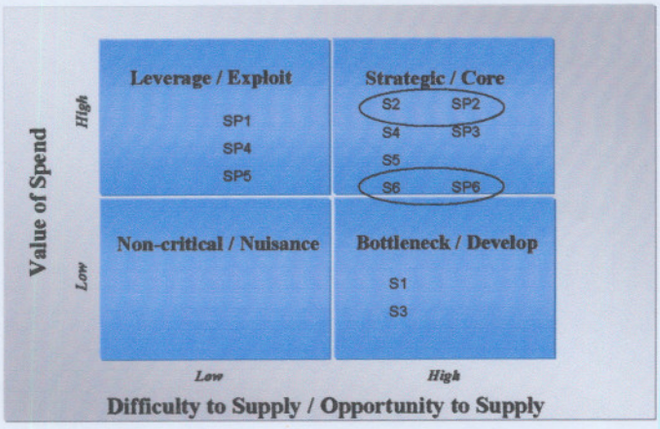
Figure 4.4 Relationship evaluation matrix

Source: Kraljic 1983 & Moore 2002

Based on the feedback from question one, the supplier's perceptions are reflected in Figure 4.5 below as S1 to S6, whilst the view of Sasol Polymers is shown as SP1 to SP6. Only the perceptions of suppliers two and six are fully aligned with the views of Sasol Polymers. Supplier one viewed his opportunity as "develop" whilst Sasol Polymers was of the opinion that it should be a "leverage" relationship. Supplier three viewed their opportunity as "develop", whilst Sasol Polymers viewed the relationship

as "core". Both suppliers four and five viewed their opportunities as "core", whilst Sasol Polymers viewed the relationship as "leverage."

Figure 4.5: Relationship evaluation matrix applied



Source: Adapted from Kraljic 1983 & Moore 2002

4.3.5.2 Importance of price

A matured relationship is not based on price alone and also includes other important business aspects. Based on question two, five out of the six suppliers viewed the supply relationship as more than price. Only supplier six was of the opinion that the relationship was based on price alone. This states the importance of other factors such as quality of service/products, on-time delivery, supply chain efficiencies, total cost of ownership, benefit sharing and long-term relationships.

4.3.5.3 Purchasing power

Question three dealt with the supply and demand reality of who has the power when it comes to negotiations. Five suppliers were of the opinion that the purchasing power was with Sasol Polymers. One supplier believed that the purchasing power was shared by both the buyer and the supplier. However, based on their buying power, Sasol Polymers would have to play the leading role in the forming of a supply relationship. It is normally easier for the buyer when he has the "buying power", however, the buying company needs to make sure that they do not misuse the power to gain more than they should. Gaining more than what is realistic, will create a win-lose situation that could harm the health of the supplier. This may only result in a

short-term relationship, as there is not a win-win opportunity that could change it into a long-term relationship.

4.3.5.4 Maturity of the relationship

In the ideal situation the buying company and the supplier need to resolve problem situations without blaming one another for the situation. Normally buying companies tend to blame their suppliers for the problem. The objective of question four was to determine the maturity of supplier relationships between Sasol Polymers and their suppliers. Five suppliers believed that they were sometimes blamed by Sasol Polymers for problem situations. One supplier, however, believed that Sasol Polymers did not blame the vendors for problem situations. Positive was the fact that not one supplier was of the opinion that Sasol Polymers always blamed the supplier for problem situations.

4.3.5.5 Single versus multiple sourcing strategies

A single sourcing strategy typifies a partner like relationship, whilst a multiple sourcing strategy is stating the buyer's lack of trust in the supplier. More than one supplier is utilised to reduce risk or to maximise benefits. Question five was used to determine the current sourcing strategies within Sasol Polymers. Four suppliers stated that they were not a single supplier of a commodity or service to the company. Two suppliers stated that they a single supplier of a commodity that is freely available in the market.

One could also use this question to determine whether the supplier is aware of his competitive situation as a supplier to Sasol Polymers. Based on the answers it is believed that the suppliers are fully aware of their supply competitive position with Sasol Polymers.

4.3.5.6 Win-win relationships

The word win-win is used frequently by buying companies. It is however, important to make sure that suppliers share the same understanding of the term win-win. Question six was aimed at determining the health of the so-called win-win relationships between Sasol Polymers and suppliers. Four suppliers stated that there

was a win-win relationship between Sasol Polymers and its suppliers. Two suppliers, however, felt that they were not winning enough and that Sasol Polymers could share more of the benefits with them.

4.3.5.7 Agreeing supply objectives

A healthy supply relationship needs to be based on the mutual agreement of objectives up front to prevent misunderstanding or misalignment of objectives. Question seven was used to determine whether Sasol Polymers involved their suppliers in agreeing objectives up-front. Four of the suppliers stated that Sasol Polymers was involving them in agreeing the objectives up-front. Two suppliers believed that Sasol Polymers was doing it sometimes, but not always.

4.3.5.8 Communication

A good supplier relationship depends largely on good communication. Questions eight and ten were used to measure Sasol Polymers' success for the criteria. Based on question eight, all six suppliers agreed that there are good communication channels in place between Sasol Polymers and the supplier.

Four suppliers stated that their communication with Sasol Polymers was good, whilst the other two suppliers believed that the communication between Sasol Polymers and them was excellent.

4.3.5.9 Sharing of benefits

The sharing of benefits is important to a successful supplier relationship. The objective of question nine was to determine whether Sasol Polymers shared benefits with its suppliers. Four suppliers were of the opinion that Sasol Polymers shared the benefits with them, whilst one supplier felt that Sasol Polymers only shared benefits occasionally, the other supplier was of the opinion that Sasol Polymers was not sharing the benefits of the relationship with him. The objective of question six was similar to that of question nine. Question six asked whether the supply relationship provide a win-win solution for both the supplier and Sasol Polymers. Four suppliers stated that the relationship provide them with a win-win solution, whilst two suppliers believe that they are not winning enough.

4.3.5.10 Service level agreements

Service levels dictate the required performance of a supplier. The buying company normally agrees a service level with his supplier and measures its performance accordingly to ensure that his products and services comply with standards dictated by its markets. However, in an integrated supply chain the buying company can also play a major role in improving supply chain efficiencies.

Based on a service where the buying company is utilising a dedicated delivery service and cost is based on vehicle utilisation, the buying company can assist the supplier to improve his delivery vehicle turnaround time by ensuring that the vehicles are loaded within a certain time. Unnecessary delays at loading point need to be avoided to ensure a win-win for both the supplier and buying company. Similarly the buying company can also influence his customers to assist with the optimising of the off-loading process to improve the vehicle turn-around time.

Questions eleven to thirteen were used to determine the status with regard to service levels and the measurement of performances accordingly. All the suppliers agreed that there were formal service levels in place. Three suppliers felt that they were measured against the service levels, two suppliers were of the opinion that they were not measured against the service levels, whilst one supplier was not sure whether he was measured against the agreed service levels.

Only one supplier indicated that he was measuring Sasol Polymers' conformance to the agreement. Two suppliers confirmed that they were not measuring Sasol Polymers' conformance, whilst three suppliers were not sure whether they were measuring Sasol Polymers' conformance to the agreement.

4.3.5.11 Access to information

Good supply relationships are often based on a sharing of important information to ensure a win-win scenario for both parties. It is important for the buying company to understand the cost breakdown and profit margins of the supplier, to avoid a scenario where the supplier is drained to maximise buying value add. Good supply relations are based on long-term relationships and will allow both parties to gain reasonably

from the relationship. Similarly it is important for the buying company to share important business decisions that will have an impact on the future of the business with strategic suppliers. This will enable the strategic supplier to align his business according to the requirements of the buying company.

Questions fourteen to sixteen addressed sharing of information. Five suppliers confirmed that they allowed Sasol Polymers access into their books, whilst only one supplier was not sure whether this was done. The answers to question sixteen were similar, as five suppliers were sure that Sasol Polymers shared important business information with them, whilst only one supplier was not sure that this was the case. Five suppliers believed that Sasol Polymers was involving them in discussions before finalising the demand planning process. Again only one supplier stated that this was only happening sometimes.

4.3.5.12 Mutual trust

Mutual trust is perhaps the most important aspect of any supply relationship. The last question dealt with this important issue. Three suppliers indicated that the relationship was built on mutual trust, whilst three suppliers were not sure that this was the case with their relationship with Sasol Polymers.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The first objective of this chapter is to give an analysis of the empirical research findings. A parallel will be drawn between the literature study presented in chapters two and three and the empirical research done on Sasol Polymers PSM and supplier relationships in chapter four. The second objective is to identify possible shortcomings and to make the necessary recommendations to improve Sasol Polymers' procurement relationships with suppliers, as well as to improve internal procurement efficiencies. The final objective is to present Sasol Polymers with a framework for the implementation of vendor strategies.

5.2 Conclusions

5.2.1 Sasol PSM

The Sasol PSM business process discussed in chapter four provides a good strategic framework that will assist with the implementation of vendor strategies at Sasol Polymers. More important is the fact that this is not just a paper exercise; the PSM process is fully aligned and implemented throughout all divisions within Sasol. Progress is monitored and results are published on a monthly basis to senior management via DOV reporting. The following are the most important aspects in this regard to take note of:

- The governance document clearly stated Sasol PSM's intent to align with business vision and strategic objectives. This is in accordance with Grant's statement (1998:24) mentioned in 2.2 of the literature study. Sourcing policy strategies are in place at Sasol and steer all divisions towards achieving vision and the strategic objectives.
- The governance document also gives a clear understanding of strategic, tactical and operational processes and actions as stated by Segill (1996:7), refer 2.2 of the literature study, that provide direction to the various procurement departments within the Sasol PSM structure. Strategic sourcing team support to divisional procurement provides a good strategic and tactical solution to more complex purchasing situations. Standardisation through the

UNSPSC coding further allows for tactical solutions throughout all divisions within Sasol.

- The Sasol BEE vision is based on the philosophy that sustainable growth is a necessary condition for a peaceful and prosperous South Africa and that it is also a key requirement for the future success of the company.
- The roles and responsibilities of PSM are clearly defined and understood by PSM and the various divisions to which a service is rendered. As stated by Van Weele (1994:9), refer 2.3 of the literature study, Sasol sourcing strategies dictate what commodities to buy, who to buy from, how to determine best prices and how to create beneficial partnerships with suppliers that will allow win-win opportunities for both Sasol and their suppliers in the process. A possible short coming, however, may be the fact that there is not a formal guideline on when to utilise a single sourcing strategy and when to utilise a multiple sourcing strategy.

Sasol PSM strategies also address other aspects that support the following:

- Utilising of technologies to enhance the process of maximising profits;
- Development of people;
- Development of BEE within Sasol;
- Management of suppliers;
- Risk management within Sasol;
- Measurement of PSM and supplier performance to ensure that objectives are met.

5.2.2 Sasol Polymers

5.2.2.1 Strategic procurement

Similarly to the statement made by Ellram & Birou (1995:67), refer 2.2 of the literature study, the role of Sasol Polymers procurement ranges from a support function to a strategic function. Sasol Polymers procurement strategies are aligned with Sasol PSM strategies, and play an important strategic role in the improvement of procurement efficiencies of Sasol Polymers. Apart from the strategic role, Sasol Polymers procurement is also playing a supportive role to the four individual business units and is fully aligned with the business strategies of the four business units.

5.2.2.2 Functional role players

The Sasol Polymers specialised procurement process allows for participation from other functional departments. There is, however, no formal relationship framework in place to support the procurement function in achieving optimal success as stated by Ellram & Birou (1995:88), refer figure 2.3 in chapter two of the literature study.

5.2.2.3 Strategic sourcing

Sasol Polymers has a sourcing strategy in place; suppliers are discovered, evaluated, selected, developed and managed based on business needs, and supply risks associated with the specific supplies, as indicated by Burt et al. (2003:328), refer point 2.5.1 of the literature study. Sasol Polymers utilises both single and multiple sourcing strategies depending on the business needs and risk profiles. External spending and suppliers are analysed according to importance to the business.

5.2.2.4 Commodity strategies

A framework adapted from the Kraljic relationship model (1983) is used to determine commodity strategies for Sasol Polymers. Spend is analysed per commodity and per supplier according to the four quadrants of importance to the business namely: strategic, leverage, critical and shop. Commodity strategies are implemented according to the importance to the four individual BU's within Sasol Polymers.

The above commodity strategy framework, however, does not refer to the important aspects as highlighted by Michael Porter (1979), refer Figure 2.1, in his five forces model. Neither is there a framework within Sasol Polymers that assists procurement in doing a market or industry analysis. The following are typical aspects to consider in constructing a generic framework for market or industry analysis.

Procurement could ask the following questions regarding **business needs** to facilitate the process of understanding:

- What is the purpose of the commodity?
- How important is the commodity to the business?
- How does the commodity integrate with other processes and systems?
- What quality is required?

- What service level is required?
- What is the demand and frequency of use of the commodity?
- What is the delivery lead time of the commodity?
- Is it a stock item, and what stock levels are required?
- Is the commodity linked to a material resource planning order system?
- What is the cost of the commodity?
- What is the total spend on the commodity?
- What are the safety requirements for this commodity?
- Are there any environmental issues related to the commodity?

Similarly Procurement could ask the following questions regarding the industry or market to facilitate an understanding of the **market dynamics**:

- How difficult is it to supply this commodity?
- Are their alternative products available in the market?
- What is the dynamics of demand and supply?
- How many suppliers are there?
- What is the location of the suppliers?
- What impact does the commodity have on the environment?
- What quality is available in the market?
- What is a reasonable price to pay for the commodity?
- What impact does technology have on the commodity?
- What are the best practices?
- Are there any BEE suppliers or the potential to develop BEE suppliers?
- What role does legislation play in this commodity market?

A comparison of the above internal and external factors will enable procurement to implement a commodity strategy. This commodity strategy will further enable Sasol Polymers to implement vendor strategies according to the dynamics of the internal and external supply factors.

5.2.2.5 Vendor strategies

No formal vendor strategies exist within Sasol Polymers procurement. Although spend is analysed per cost category per vendor, cost is managed according to commodities and its importance to the BU. The Pareto analysis (80/20) principle allows Sasol Polymers procurement to identify main vendors in terms of value spend. This information, however, will assist in the forming of vendor strategies.

The above, however, will not enable Sasol Polymers to ensure that the correct vendor strategies are applied. For instance, in situations where Sasol Polymers has the volumes, they are not utilising a multiple sourcing strategy as suggested by Kraljic in model for strategic thrust, refer Figure 3.6. According to Kraljic, the supplier loses its buying power if not "spread" to more than one supplier. Sasol Polymers will have to consider this strategic approach.

Sasol Polymers is not putting enough effort into procurement research. Global opportunities exist and allow access to suppliers that were previously unknown to Sasol Polymers. Sasol Polymers should stay in touch with alternative suppliers that could substitute current suppliers. This is also applicable to certain raw materials that could be replaced by alternative products. Suppliers from the eastern block countries particularly can be viewed as opportunities to explore.

Sasol Polymers is also not utilising the opportunity to keep inventories low as suggested by Kraljic in Figure 3.6 in situations where Sasol Polymers has the buying power. Consignment or just in time (JIT) supplies are typical solutions and could lead to reduction in inventory values.

As a result of the implementation of foreign technologies, Sasol Polymers finds itself in a position where it has too many sole suppliers. It is not easy to walk away from technology support and it is definitely not something that Sasol Polymers could do without proper alternatives. However, Sasol Polymers needs to develop local suppliers that can take over some of the foreign sole supplies. Kraljic points out in Figure 3.6 that a company should search vigorously for new suppliers in a sole supply scenario. This could, for instance, enable the company to move a commodity from the

critical quadrant to the shop quadrant on the commodity strategy framework. This will allow Sasol Polymers to improve its leverage over these suppliers, reduce the risk and improve cost efficiencies.

5.2.3 Supplier relationships

The main objective of the questionnaire compiled by the author was to determine whether there was alignment of objectives between Sasol Polymers and its suppliers. A secondary objective was to identify the misalignment of objectives between Sasol Polymers and its suppliers that could serve as a base for improvement of relationships between Sasol Polymers and the suppliers.

- Only two of the six suppliers used in the questionnaire are fully aligned with Sasol Polymers' procurement relationship intent. Therefore the misalignment of four suppliers is indicative of the need to improve relationships between Sasol Polymers and its suppliers.
- The majority of the suppliers were of the opinion that the relationships were more than just price. This is a very positive aspect and indicates that suppliers feel that they are not pushed for price only. Suppliers realise the importance of other performance criteria such as quality, service, on-time delivery and other deliverables. This will enable Sasol Polymers to develop relationships based on mutual trust that could support TCO, and create win-win opportunities for both parties.
- The majority of the suppliers also stated that the relationship was dictated by the "buying power" of Sasol Polymers. This was expected, as Sasol is one of the leading businesses within Southern Africa. Sasol Polymers needs to take note of this and manage relationships carefully to ensure that they do not destroy suppliers based on unreasonable leverage potential.
- A concern is the fact that most suppliers believed that Sasol Polymers sometimes blamed them for problem situations. True supply relationships rely on a "no blame" culture.
- Some suppliers believed that they were not winning enough through their supply relationship with Sasol Polymers. Positive, however, was the fact that

most suppliers believed that they were part of a relationship that allowed both partners to gain from the relationship.

- The majority of suppliers believed that they were involved in agreeing objectives during the planning phase. This is important and allows the suppliers to learn and understand the needs of Sasol Polymers properly. All the suppliers were further of the opinion that communication between Sasol Polymers and the supplier was good.
- Measurement of performance is important and allows the supplier to improve his service offerings to Sasol Polymers through own learning experiences. Yet it is the author's opinion that suppliers are not utilising measurements enough to improve their service offerings. Uncertainty regarding whether Sasol Polymers are measured against objectives is a concern. This suggests that suppliers do not understand the importance of measurements, and also do not utilise measurements as a tool to improve the supply chain.
- Sasol Polymers shares critical relevant information with suppliers and therefore lays a good foundation for mutual trust to develop the supply relationship.

5.3 Recommendations

5.3.1 Manage total cost of ownership

Sasol Polymers is very serious about reducing costs, but needs to be careful not to leverage suppliers beyond the point were they can contribute value to the business. Supplier relationships need to be based on a healthy basis of sharing benefits gained through the process of improvement. Instead Sasol Polymers needs to look at developing more strategic relationships with important suppliers of high value. TCO could be utilised throughout the total supply chain and not to the detriment of "leverage" suppliers.

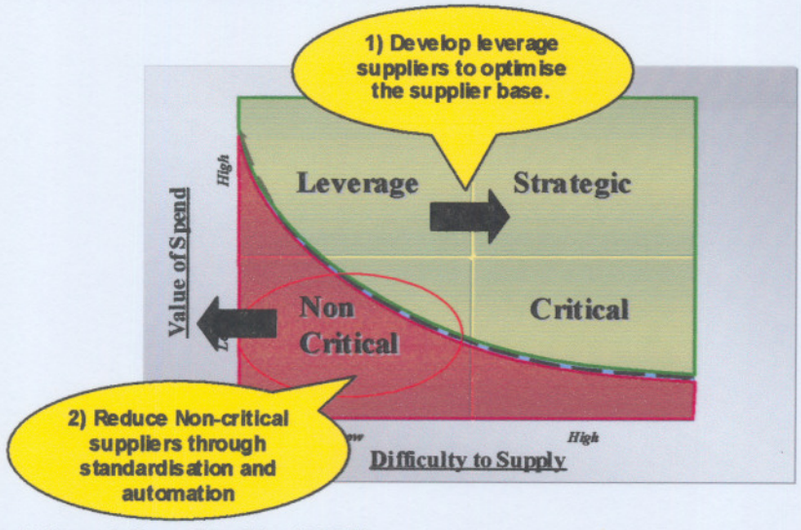
5.3.2 Improve sourcing strategy

It is important for procurement to understand when to apply a single sourcing strategy and when to apply a multiple sourcing strategy. Right sizing of supplier base is also important and will have a direct impact on single or multiple sourcing strategies. Reduction of suppliers is not always the correct thing to consider.

5.3.2.1 Single sourcing strategy

The top one hundred vendors for Sasol Polymers account for 82% of the external spend. Suppliers in the leverage quadrant suggest that there is more than one supplier for some of the commodities. Depending on the strategy and potential of specific leverage suppliers this could create an opportunity to reduce suppliers, as certain leverage suppliers could be developed to become strategic suppliers. Another opportunity is to standardise and to automate the purchasing of non-critical items. More than one thousand Sasol Polymers suppliers fall into the non-critical quadrant and will give the ideal opportunity to reduce the supply base, refer Figure 5.1 below.

Figure 5.1 - Single sourcing strategy matrix



Adapted from Kraljic (1983)

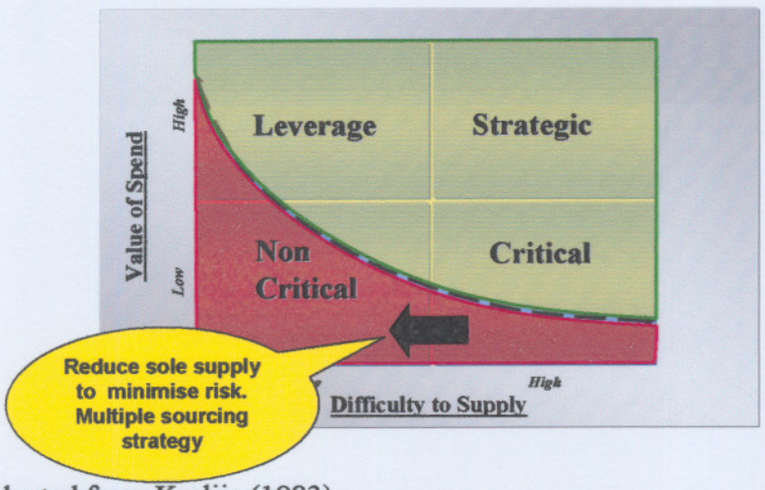
5.3.2.2 Multiple sourcing strategies

Based on the analysis performed by the author Sasol Polymers also has a need to increase their supply base in certain areas, as a large number of critical maintenance equipment suppliers are foreign sole suppliers. This aspect increases the supply risk to Sasol Polymers, as there are no alternative suppliers available. There are more than three hundred sole suppliers on the Sasol Polymers supplier base. Thus, Sasol Polymers will have to develop local alternative suppliers to reduce this risk. As shown in Figure 5.2 the development of alternative suppliers in the critical quadrant will allow the company the opportunity to move vendors into the non-critical

quadrant. More competition will allow the company to reduce (i) input cost, (ii) supply risk (stock outs, etc.) and (iii) purchasing administration cost, as most of these purchases could be automated.

The multiple sourcing strategies should further allow the opportunity for BEE suppliers to become part of the Sasol Polymers' supplier base. The non-critical and leverage quadrants should be targeted as possible access strategies for BEE. Certain commodities could be set aside for BEE supplies. This could typically include warehousing, transport, other non-core services and certain packaging commodities.

Figure 5.2 - Multiple sourcing strategy matrix



Adapted from Kraljic (1983)

5.3.3 Create mutual trust

Although it may not be a current problem within Sasol Polymers, the questionnaire suggests that suppliers could feel that they are always blamed for problems. It is therefore important for the supplier to understand his role in the supply chain. This may ask of suppliers even to understand the needs of Sasol Polymers' customers. Sasol Polymers needs to ensure that suppliers know what they can and what they cannot do in terms of the supply agreement. Alignment in thinking will allow them to grow in confidence and will further enable them to continuously improve their offerings to Sasol Polymers without putting Sasol Polymers at risk. Understanding and strategic alignment will create mutual trust in the supply relationship.

5.3.4 Educate suppliers

Suppliers need to be educated to measure their own performance against service levels. Quarterly meetings with more strategic suppliers could be utilised to allow the supplier to give feedback on his supply performance. Sasol Polymers could use this forum to develop supplier skills and qualities as well as to give positive feedback that could boost the morale of the supplier's staff.

5.3.5 Analyse supplier objectives

Too little is known about what the suppliers want to achieve from the relationship with Sasol Polymers. The perception model adapted from Moore (2002) is providing a good framework to analyse supplier needs and could assist in improving mutual relationships. Understanding of supplier objectives could assist Sasol Polymers in (i) selecting the correct strategic suppliers, (ii) maximising the leverage potential of suppliers, and (iii) nursing critical supply relationships to reduce Sasol Polymers' risk in sole supplier situations.

5.3.6 Improve functional role clarification

Functional role clarification needs to improve at Sasol Polymers. Rendering a procurement service to four BU's is more complex than buying for only one business. It is difficult for procurement to standardise and align the objectives of the four BU's into one commodity strategy. Functional team support, however, can be utilised as a vehicle to steer continuous improvement through all the BU's. Internal knowledge and lessons learned from one supply scenario can easily be transferred from one BU to another through functional involvement in procurement. Ellram's partnering classification model, refer Figure 2.3, could really enhance the development of strategic supplier relationships. The author proposes that Sasol Polymers use this framework as an add to the Kraljic relationship model to improve strategic supply relationships.

5.3.7 Implement work teams

Work teams, refer Figure 2.3, are proposed as the ultimate solution to manage strategic functions that are outsourced. A joint liaison team consisting of members from Sasol Polymers procurement, end-user line management and the supplier could

manage the relationship. Quarterly meetings will allow the team to interact and agree objectives to improve efficiencies. Results from this meeting can then be communicated in both businesses to senior management. Achievement of supply strategies and the sharing of risks and benefits are typical agenda points for such a forum.

5.3.8 Implement vendor strategies

The Kraljic relationship model (1983) was successfully utilised within Sasol Polymers to implement commodity strategies. Similarly the same matrix could be utilised to implement vendor strategies at Sasol Polymers. Vendor strategies should dictate the relationship that Sasol Polymers should have with its suppliers. Vendor strategies could be a tool that enables the business to manage the supply relationships according to the importance of its business needs, as stated by Kraljic in his relationship model, refer Figure 3.4.

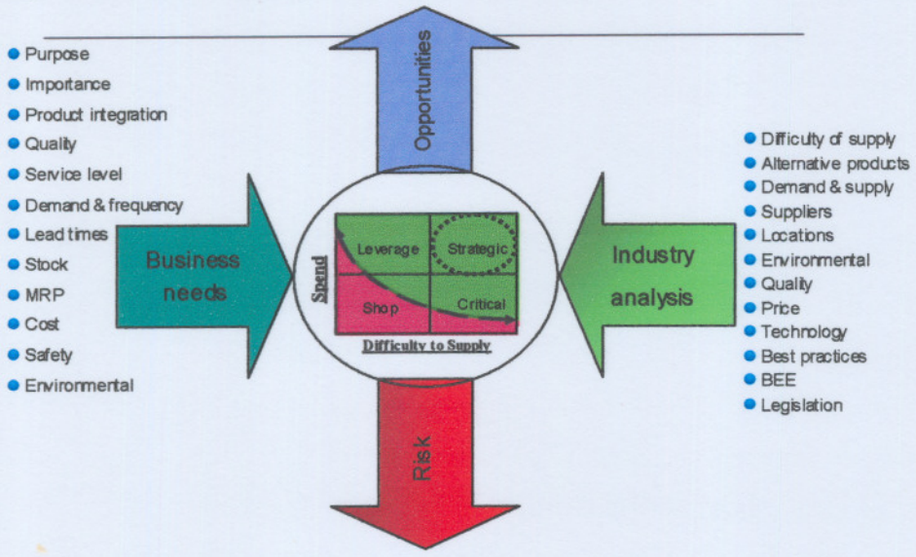
It is the author's opinion that Sasol Polymers should make use of Kraljic's strategic implications of purchasing portfolio positioning framework, as shown in Figure 3.6. This framework will allow Sasol Polymers to compare the company's strengths with the supplier's strengths. Vendor strategies could be formed accordingly.

5.3.9 Improve commodity strategy framework

Sasol Polymers needs to develop a framework that will enable them to determine end user needs and that will allow them to scan the industry for comparison information, to ensure future supplies according to end user needs. Figure 5.3 below was compiled by the author to illustrate how the questions used in 5.2.2.4 above regarding business needs and industry analysis, could relate to Sasol Polymers commodity strategy framework adapted from Kraljic's four quadrant strategy approach.

Through an analysis process, the business needs and industry analysis will result in either business opportunities or business risks, depending on the impact (see Figure 5.3) on the business. This process will enable the procurement department to determine the value proposition of the opportunity and the associated risk it has to the business.

Figure 5.3 - Commodity Strategy Framework



Source: Adapted from Porter's five forces and Kraljic

The procurement department could now employ commodity strategies according to the impact of the business needs (high spend, importance, quality, service levels, demand, etc) and the impact of the industry (difficult to supply, alternatives, competition, availability, price, etc). Commodity strategies could now be implemented according to the four quadrant commodity strategies namely: leverage, strategic, critical or shop.

5.3.10 Impact of commodity strategies on vendor strategies

Procurement needs to understand the impact that commodity strategies could have on vendor strategies. Alignment between commodity strategies and vendor strategies could simplify the procurement process. However, it may not always be possible to manage a commodity and the vendor of that commodity in the same quadrant. This could specifically be true where a vendor supplies more than one commodity and where the commodities are managed in different quadrants. However, the commodity that the company view as more important will dictate the relationship that the company should have with the vendor. Thus, it would be possible to manage two commodities from the same supplier in two different quadrants and it also reconfirms the fact that one will first have to deal with the commodity strategy before considering a vendor strategy.

5.4 Implementation plan for vendor strategies

The following approach is recommended for implementation at Sasol Polymers:

(i) Review the Commodity strategy

- Analyse and understand the needs of the business, based on the framework supplied in Figure 5.3.
- Analyse and understand the supply market or industry, based on the framework supplied in Figure 5.3. Procurement should utilise Internet for market research to improve their knowledge of the industry, technologies and alternative products and suppliers.
- Evaluate the above by comparing the business needs with the industry analysis. It may be appropriate to do a SWOT analysis to determine strengths, weaknesses, opportunities and threats with regard to the commodities and vendors in relation to the industry and select the best commodity strategy accordingly.
- Evaluate commodities and allocate accordingly to their importance to the business, based on the company's value spend and difficulty to supply in the market, refer the adapted Kraljic relationship model.

(ii) Utilise the commodity strategy framework adapted from the Kraljic relationship model framework as a basis to create a framework that will assist in allocating vendors according to the four quadrants: strategic, leverage, critical and non-critical, refer Kraljic relationship model as shown in Figure 3.4. In this case vendors will be allocated according to their importance and the value of spend involved in relation to how difficult it is to get an alternative supplies.

(iii) Evaluate suppliers based on how they would view the supply opportunity to Sasol Polymers, refer the supplier perceptions matrix proposed by Moore in Figure 3.7. Allocate the supply opportunity to one of the four quadrants that include core, exploit, develop and nuisance. Information regarding the vendor gathered in the industry analysis could assist procurement in determining the supplier opportunity if this is performed for a first time. Current suppliers could assist in allocating the supplier opportunity as demonstrated in the questionnaire used in chapter four.

(iv) A next step would be to compare the importance of supplies to Sasol Polymers with the supplier opportunity. This will give insight into mutual objectives and could assist procurement to align the objectives to improve the supply relationship. Refer Figure 4.4 for better understanding of this alignment proposal.

(v) As a next step procurement should ensure that they understand what is meant by supplier strength and what is meant by company strength. Refer the purchasing and portfolio evaluation criteria as proposed by Kraljic (1983) in Table 3.1. Procurement should now compare the company's strength with the supplier's strength in each criterion and other possible criteria not mentioned in this document.

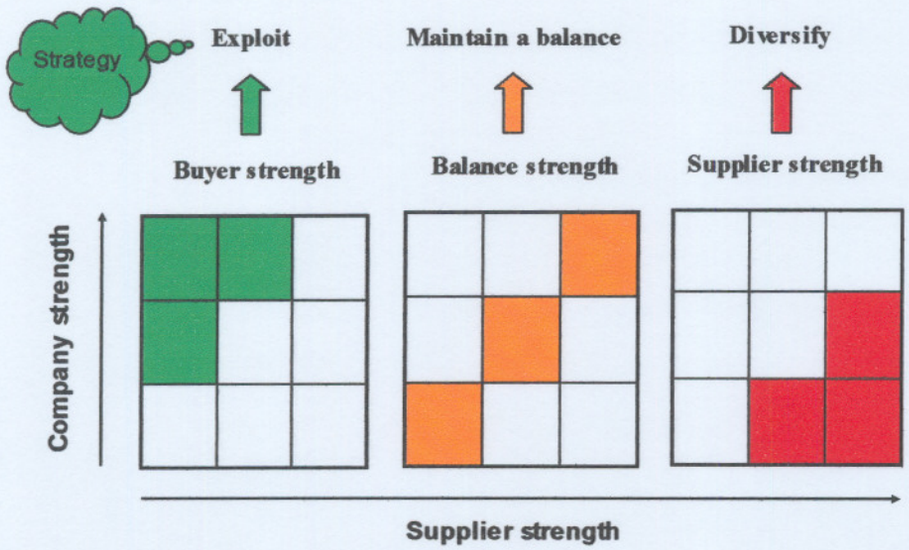
(vi) The results from the above need to be plotted on the "purchasing portfolio matrix" proposed by Kraljic (1983), refer Figure 3.5.

(vii) Sasol Polymers should now view their suppliers based on the "strategic thrust" model proposed by Kraljic (1983), refer Figure 5.4 below. The company should now utilise the strategies proposed by Kraljic.

(viii) Select the best vendor strategy according to Figure 5.4.

- Sasol Polymers should exploit the opportunity if they have the buying power. They could typically employ a multiple sourcing strategy based on volumes available, reduce stock and minimise logistics cost to make sure they maximise the available benefits as indicated by Kraljic in Figure 3. 6.
- Based on a balanced strength Sasol Polymers could consider either a multiple or single sourcing strategy. Stocks could be used as buffer, whilst Logistics could be optimised carefully as suggested by Kraljic, in Figure 3.6.
- Based on supplier strength, Sasol Polymers should consider the following, centralise purchasing to maximise the impact of Sasol Polymers' volumes, maintain high stock levels to reduce the risk of out of stock situations and secure logistics solutions to assist with supplies in problem situations.

Figure 5.4 – Strategic thrust



Source : Adapted from Kraljic (1983)

(viv) Reserve the non-critical and leverage quadrants for BEE supplier development.

SOURCE LIST

1. BADENHORST-WEISS, J.A, FOURIE, I. & NEL, J.D. 2003. Sasol programme in strategic supply management, printed and published by University of South Africa. 212 p.

2. BANTOCK, T. 2004. Optimising outsourced supply chains using service level agreements. Logistics News, May 2004. 5-7 p.

3. BURT, D.N, DOBLER, D.W. & STARLING S, L. 2003. World class supply management. 7th edition. 689 p.

4. CARTER, P.L, CARTER, J.L, MONCZKA, R.M, SLAIGHT, T.H. & SWAN A.J. 1998. The future of purchasing and supply, a five and ten year forecast. 95 p.

5. CARTER, J.R. & NARASIMHAN, R. 1995. Purchasing and supply management, future directions and trends. 128 p.

6. COOPER, R. & SLAGMULDER, R. 1999. Supply Chain Development for the Lean Enterprise. 510 p.

7. COOPER, M.C, ELLRAM, L.M, GARDNER, J.T. & HANKS, A.M. 1997. Meshing multiple alliances. Journal of business logistics for Council of logistics management. 67-85 p.

8. ELLRAM, L.M. & BIROU, L.M. 1995. Purchasing for Bottom Line Impact. 224 p.

9. FRANKEL, R. 1997. The truth about partnering, new knowledge on strategic alliances. The 34th annual report of the Council of Logistics Management, Chicago, Illinois, October 5 – 8, 1997. 215-220 p.

10. KYTE, A. 2003. Best practices in procurement. 1-20 p.

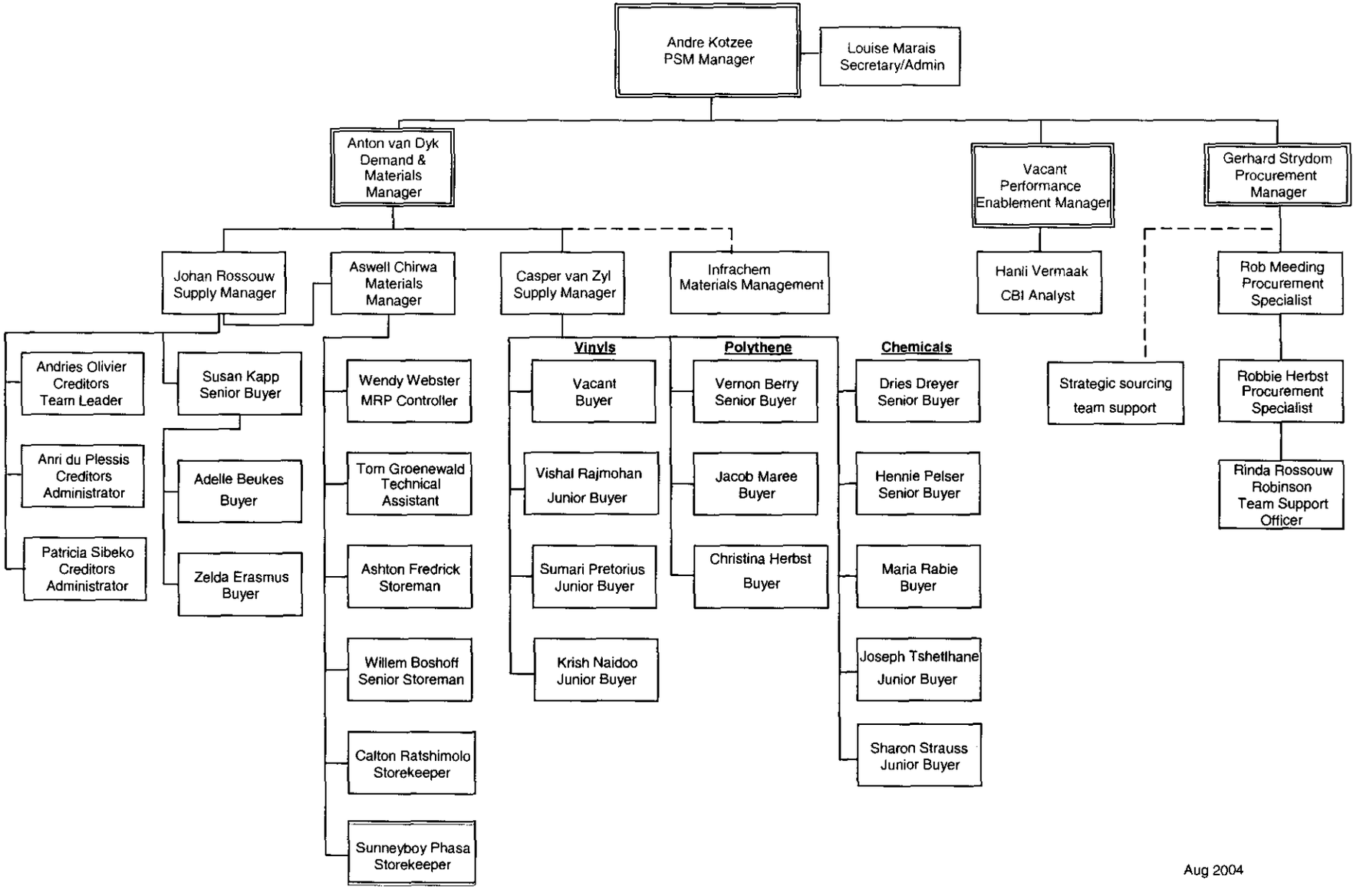
11. GRANT, R.M. 1998. Contemporary strategic analysis. 3rd edition. 461 p.

24. THOMPSON, A.A, jr. & STRICKLAND, A.J. 2003. Strategic management, concept and cases. 13th edition. 450p.

25. VAN WEELE, A.J. 1994. Purchasing management, analysis, planning and practice. 284 p.

Exhibit 1

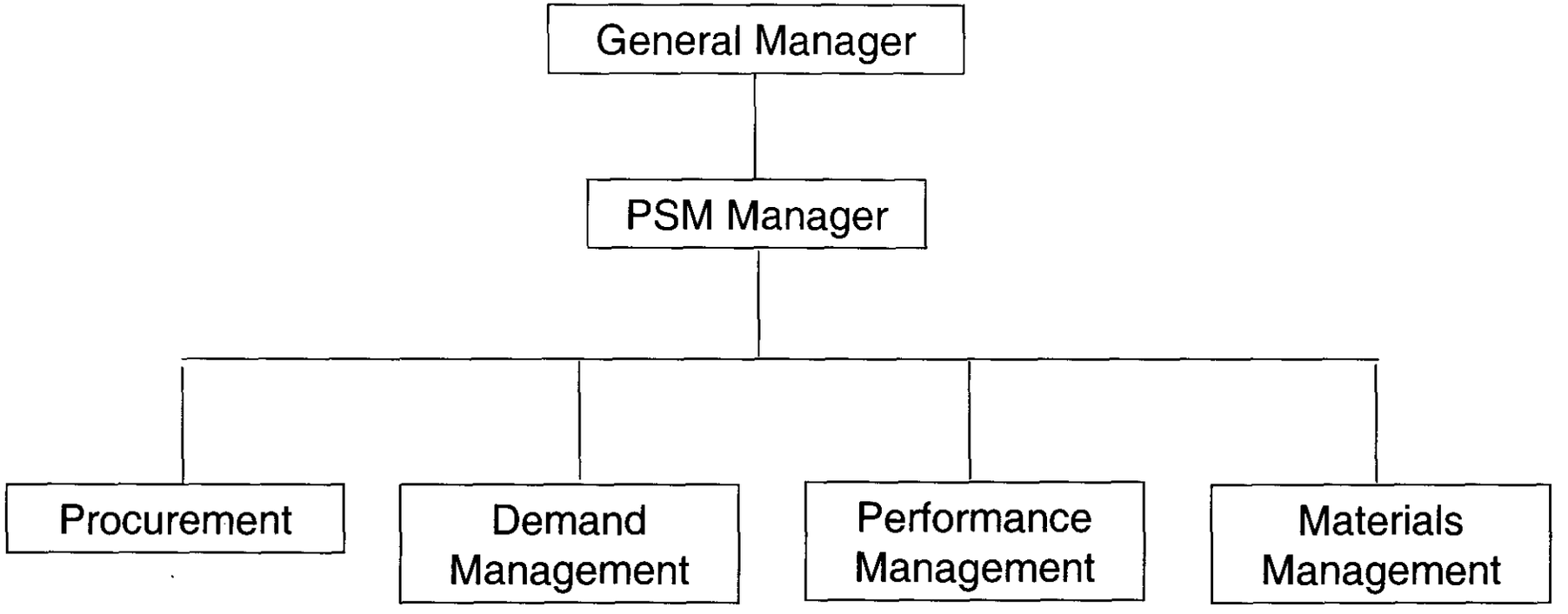
SASOL POLYMERS PSM ORGANOGRAM



Aug 2004

Exhibit 1

SASOL PSM STRUCTURE



Source: SASOL

Exhibit 2

Exhibit 3

SUPPLIER RELATIONSHIP QUESTIONNAIRE

Sasol Polymers allocation of the vendors (information was not shared with vendors)

	Supplier 1	Supplier 2	Supplier 3	Supplier 4	Supplier 5	Supplier 6
Leverage	x			x	x	
Strategic		x	x			x
Critical						
Shop						

1. In your opinion what is your company's perception of the supply opportunity to Sasol Polymers?

Exploit						
Core		x		x	x	x
Develop	x		x			
Nuisance						

2. From a supply point of view, is the relationship more than price?

Yes	x	x	x	x	x	
No						x
Not sure						

3. Purchasing control is with Sasol Polymers?

Yes	x	x	x		x	x
No						
Mutually shared				x		
Not sure						

4. The supplier is always wrong! The buyer seldom accepts responsibility for a problem situation?

Yes						
No			x			
Sometimes	x	x		x	x	x
Not sure						

5. Is your company the single supplier to Sasol Polymers for the product or commodity that you are supplying?

Yes				x		x
No	x	x	x		x	
Not sure						

6. Does the supply relationship provide a win-win solution for both the supplier and Sasol Polymers?

Yes	x	x	x	x		
No						
Not enough					x	x
Not sure						

7. Do parties agree objectives up-front?

Always	x	x	x	x		
Never						
Sometimes					x	x
Not sure						

8. Communication between Sasol Polymers and the supplier is a two way dialogue and not just one sided instructions?

Agree	x	x	x	x	x	
Disagree						
Not sure						x

9. Are benefits from the supply relationship shared between both parties?

Yes	x			x	x	x
No			x			

Sometimes		x				
Uncertain						

10. In your opinion how would you view the communication between the supplier and Sasol Polymers?

Excellent	x		x			
Good		x		x	x	x
Need to improve						
Poor						

11. Is there a proper Service Level Agreement (SLA) in place between you and Sasol Polymers?

Yes	x	x	x	x	x	x
No						
Not sure						

12. Is the supplier measured against the agreed SLA's (refer question 11, if yes)?

Yes				x	x	x
No	x		x			
Not sure		x				

13. Is Sasol Polymers measured against the agreed SLA's (refer question 11, if yes)?

Yes				x		
No	x		x			
Not sure		x			x	x

14. Is the relationship based on an open-book principle, where the supplier allow the buying company access to his business information?

Yes	x		x	x	x	x
No						
Not sure		x				

15. Does Sasol Polymers share confidential business information with you as the supplier?

Yes		x	x	x	x	x
No						
Not sure	x					

16. Demand planning plays an important role in the supply relationship. Are these plans discussed and mutually agreed on a regular basis?

Yes	x	x	x		x	
No						
Sometimes				x		x
Uncertain						

17. Is there a mutual trust in the supply relationship between the supplier and Sasol Polymers?

Yes		x	x	x		
No						
Not sure	x				x	x