UNIVERSITY OF KWAZULU-NATAL

UNLEASHING THE LATENT POTENTIAL OF PROCUREMENT AS AN ELEMENT OF SUPPLY CHAIN MANAGEMENT

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DECLARATION

I, Jonas Embrose Mhlarhi, declare that

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UNLEASHING THE LATENT POTENTIAL OF PROCUREMENT AS AN ELEMENT OF SUPPLY CHAIN MANAGEMENT

ABSTRACT

Procurement has been viewed as a Cinderella function, merely rendering service to core functions such as operations/production, engineering, R&D and marketing. The activities of procurement have been mundane and repetitive in nature. The importance of procurement can be understood by looking at the cost of goods sold as reflected in each company's financial statement. In some companies this cost is more than 70% of sales revenue. World class companies realised this and elevated the procurement function to strategic levels. However, lagging companies still operate as if it is fifty years ago. The aim of this study is to determine whether companies are adapting new methods of procurement instead of pitting suppliers against each other in search of the lowest purchase price.

A sample of 30 procurement managers was drawn from the 2006 Financial Mail 100 SA Best Companies. It comprised managers of companies stemming from different industries ranging from petrochemicals and banking services to hospitality, etcetera. These companies were chosen because they are the best in their class. Data was collected using questionnaires developed by the researcher and e-mailed to respondents. Regression analysis was conducted and it was established that there is a positive relationship between information sharing and trust. There seems to be a negative relationship between trust and communication.

It was noted with dismay that a large contingent of procurement personnel who are supposed to uplift the status of procurement do not possess post-matriculation qualifications. This poses a serious drawback since these procurement personnel are supposed to transact with highly qualified sales representatives from the supplier companies.

It is therefore recommended that companies be selective in their procurement approaches, tendering for leverage items, negotiating for strategic items and using a procurement card for shop items. Supplier performance measurement must be conducted to improve performance and partnerships formed with high performing

suppliers. The skills levels of procurement officials need to be upgraded to enable them to deal with new challenges.

Table of Contents

Description		Page
Title Page		i
Permission to submit		ii
Declaration		ii
Acknowledgements		iii
Abstract		iv
Table of Contents		v
List of Figures		vi
Annexures		vi
CHAPTER ONE		
OVERVIEW OF THE STUDY		1
1.1	Introduction	1
1.2	Background	2
1.2.1	The traditional view of procurement	2
1.2.2	The importance of purchasing in the supply chain	4
1.3	Identification of the research problem	5
1.4	Contribution to the field of study	5
1.5	Motivation of the study	6
1.6	Research methodology	6
1.7	Layout of the dissertation	7
CHAPTER TWO		
LITERATURE REVIEW		
2.1	Introduction	8
2.2	Supplier selection process	8
2.2.1	Supplier Selection Criteria	10
2.2.2	Types of supplier selection	11
2.2.2.1	The weighted approach method	12
2.2.2.2	Total Cost of Ownership approach	13
2.2.2.3	Developing the total cost model	14
2.2.2.4	Benefits associated with the total cost approach	16

2.3 The purchasing/procurement process 17
2.3.1 The purchasing cycle 17
2.3.1.1 Origin of need 18
2.3.1.2 Description of need 18
2.3.1.3 Selection of suppliers 19
2.3.1.4 Drawing the Request for Quotation (RFQ) 19
2.3.1.5 Determining prices and availability 19
2.3.1.6 Placing the order 20
2.3.1.7 Follow-up and expediting 20
2.3.1.8 Receipt and inspection 20
2.3.1.9 Invoice clearing and payment 21
2.3.1.10 Continuously measure and manage supplier performance 21
2.4 The purchasing process and the Procurement card 21
2.5 Supplier performance measurement 22
2.5.1 Levelling the playing field 23
2.5.1.1 Context 23
2.5.1.2 Content 23
2.5.1.3 Process 24
2.5.2 Developing and implementing supplier performance measurement 24
2.5.3 Barriers to supplier performance programme 29
2.6 Buyer - supplier relationship: Until death do us part 29
2.6.1 Supplier relationship defined 30
2.6.2 Why should firms partner with suppliers? 32
2.6.3 Why supplier partnership works? 33
2.6.4 Building trust 36
2.6.5 Supplier partnership implementation 38
2.7 Summary 40

CHAPTER THREE
RESEARCH METHODOLOGY
3.1 Introduction 41
3.2 Characteristics of research 43
3.3 Types of research 43

3.3.1 Application 43
3.3.2 Objectives 44
3.3.3 Inquiry mode 44
3.4 Research methods 45
3.5 Primary data collection 45
3.6 Secondary data collection 46
3.7 Qualitative and quantitative data 46
3.8 Research design 47
3.9 Forms of questions 48
3.10 Summary 49

CHAPTER FOUR
DATA ANALYSIS
4.1 Introduction 50
4.2 Research methodology 50
4.2.1 Research instruments 50
4.2.2 Characteristics of the population 51
4.3 The questionnaire 51
4.4 Regression analysis 57
4.5 Hypothesis testing (regression equation) 59
4.6 Hypothesis testing (partial regression coefficients) 59
4.7 Limitations 60
4.8 Summary 60

CHAPTER FIVE
CONCLUSION AND RECOMMENDATIONS
5.1 Introduction 62
5.2 Conclusion 62
5.3 Recommendations 65

BIBLIOGRAPHY 68

Appendix A Questionnaire 77
Appendix B Questionnire responses 83

CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 Introduction

Purchasing has undergone a series of metamorphosis. It developed from buying, via procurement to supply management (Axelsson, Rozemeijer & Wynstra: 2005). Purchasing, as in 'buying', is the lowest/narrowest or transactional form and represents purchasing activities that deal with buying the required goods and services at the lowest price; whereas in 'procurement', purchasing can be described as tactical in nature, where volumes and lead-time are taken into consideration rather than price alone.

In this study the terms purchasing and procurement will be used interchangeably and are both defined as "the management of the company's external resources in such a way that the supply of goods, services, capabilities and knowledge which are necessary for running, maintaining and managing the company's primary and support activities is secured at the most favourable conditions" (Van Weele 2005: 12). Encompassed in this definition is the responsibility of the purchasing function for activities aimed at the selection of preferred suppliers with whom to conduct business; entering into contracts with successful suppliers, placing orders with selected suppliers, monitoring and controlling the order, and after-care and evaluation.

Supply Chain Management (SCM) is a continuously evolving concept with no commonly agreed upon working definition with which many can agree. In this study we will use the definition proposed by Van Weele (2005: 17) who describes it "as the management of all activities, information, knowledge and financial resources associated with the flow and transformation of goods and services from the raw material suppliers, component suppliers and other suppliers in such a way that the expectations of the users of the company are being met or surpassed." According to Tan (2001) the short term objectives

of SCM are to reduce inventory and cycle time while the goal is profit maximisation for all channel members.

1.2 Background

1.2.1 The traditional view of purchasing

Novack & Simco in Carr & Smeltzer (1999) and Croom, Romano, & Giannakis (2000) state that procurement is a complex *process* that is difficult to define, understand, and manage. In order to manage the process, it must be understood, and to understand the process, it must be defined. Many companies fail in their attempts to manage the procurement function because they do not understand it or they define it incorrectly. Companies manage their purchasing functions in terms of the five 'rights' (Bailey & Farmer 1990; Seydel: 2005): to procure goods and services of the right quality, in the right quantity, at the right time, from the right supplier, at the right price. The five rights reinforce the service perspective in that it focuses on internal customer satisfaction.

Over the past few decades the right price meant the lowest/cheapest price tendered (Bailey & Farmer: 1990; Tummala, Phillips & Johnson: 2006; Deming in Bullington & Bullington: 2005). The right suppliers were those offering the lowest tendered price and possibly a free lunch as well. Currently, the right price refers to the lowest total cost of ownership, which encompasses variables other than the initial purchase price. According to Cox (2001a) the best practice involves rejection of the right supplier as the lowest bidder in favour of one who is willing to partner with the buying firm, offering product advice in new product development, advancing continuous improvement initiatives leading to a reduction in the total cost of ownership, thus enabling the buying firm to become a low-cost producer of high-quality products and services. Today's top companies compete through their suppliers (Liker & Choi: 2004; Spekman, Kamauff & Myhr: 1998; Johnson & Pyke: 1999; Horvath: 2001; Cormican & Cummingham: 2007).

Unfortunately there are companies that still operate like those thirty years ago, concerned with buying supplies and services at the lowest price, maintaining an arm's length

relationship with their suppliers, where the purchasing function is still basically clerical and staffed with personnel who possess neither the skills nor the aptitude necessary to lead this function to making its fullest contribution to the success of the organisation (Harland, Lamming, & Cousins: 1999). In these companies purchasing is still an operational function with no place at the decision making level, and consequently efficiency overrides effectiveness.

In many organisations, the purchasing function is viewed as a servile one with no strategic focus, rendering support service to dominant functions such as production, engineering and marketing (Pressey, Tzokas & Winklhofer: 2007). Such procurement is apparent in the IBM case where it is said that if one is incapable of any job one would be appointed as a buyer (Axelsson 2005: 25). Very few staff members in procurement functions are well qualified. The skills levels in procurement continue to languish at clerical levels, which help to maintain the status quo of transactional or buying mentality and thus preventing purchasing from breaking through to a level of strategic vision (Harland, Lamming & Cousins: 1999).

Procurement is a strategic function and its activities should reflect this (Kraljic in Dubois & Pedersen: 2002). The servile image of the function needs to be altered as it prevents procurement from evolving to meet the demands of the future (Leenders, Nollet & Ellram: 1994; Carr & Smeltzer: 2000; Harland, Lamming & Cousins: 1999; Tan: 2002). For this to happen, purchasers must begin to think of their jobs in strategic terms (Giunipero, Handfield & Eltantaway: 2006). Strategic skills sets of purchasers must be continuously upgraded through training to enable them to interpret changes in the supply market. Personal mastery must be inculcated in procurement staff.

The low status of procurement is exacerbated by certain procurement managers who would prefer to make every procurement activity procedural and clerical limited to the completion of forms (Carr & Smeltzer: 2000; Humphreys: 2001). This removes initiative on the part of procurement officials and renders the function boring. Those procurement officials with initiative will find this very restrictive and consequently move to other

functions like marketing where initiative is most welcome. Those remaining in procurement might be those whom the organisation does not really want.

To alter the service mentality of procurement requires top management to address certain key problems. The procurement function is grossly understaffed compared to other functions. The remuneration packages for procurement professionals remain well below those of other functionaries. The career path for the procurement professional is not as bright as that of other functionaries. Very few, if any, procurement professionals make it to the top management of the organisations. Such positions remain the preserve of candidates from the "core" functions. All these combine and contribute to low morale, burnout, poor productivity and high labour turnover rates (Cook & Hunsaker: 2001 and Robbins: 1991).

1.2.2 The importance of purchasing in the supply chain

In some companies the cost of goods sold as a percentage of sales amounts to 50% - 70% or more (Freytag & Mikkelson: 2006; Dubois & Pedersen: 2002; Chan & Chin: 2007). Procurement is supposed to oversee this budget which exerts a huge impact on the bottom-line. Each and every rand that is saved on the cost of goods sold directly improves profit (van Weele: 2005). Savings realised by means of short term initiatives are not sustainable. Effective procurement based on long term goals is in a better position to improve the cost of goods sold and thus the overall profitability of the organisation.

Purchasing plays an important role in the success of new product development by promoting early supplier involvement and building buyer-supplier relationships (McGinnis & Vallopra: 1999). It is consequently important for purchasing to have the necessary skills needed to handle the required supplier selection, total cost analysis, and the development of strategic alliances and partnership agreements.

In many procurement functions today the 80/20 principle is operational/strategic. This implies that procurement personnel spend 80 percent of their purchasing time on items

that constitute 20 percent of the total purchasing turnover (Caniëls & Gelderman: 2005), that is, on shop / non-critical items. In order to be successful, procurement personnel should be spending most of their time on 20 percent of the items that constitute 80 percent of the total spend, that is, strategic items. Carr & Pearson in Garfamy (2006) found that by investing in strategic procurement activities such as vendor base reduction, supplier relationship management, supplier intelligence and market research, a company improves its bottom line far more than by adopting an arm's length procurement approach.

1.3 Identification of the research problem

This study stems from the realisation that procurement is not achieving its fullest potential in some organisations owing to their failure to change accordingly with recent practices. Lagging firms continue to cling to the old fashioned procurement practice of chasing the lowest price for everything they buy. These firms maintain a distant relationship with all their suppliers irrespective of the supplier's status.

The researcher will investigate why lagging firms continue to cling so dearly to the traditional ways of procurement. It will be demonstrated that the pursuit of the lowest price in procurement is myopic in nature and contributes to the destruction of the long-term profitability of the companies concerned (both customer and supplier). It will be shown that procurement is a strategic function and needs to be handled as such in order to reap the fullest benefits it is capable of producing.

1.4 Contributions to the field of research

The goal of any business is to make money (Daugherty, Richey, Roath, Min, Chen, Arndt & Genchev: 2006; Cox: 2001a). The easiest way to increase profit is to reduce the cost of input materials. Procurement is in a better position to achieve this. By streamlining procurement and adapting new ways of procuring raw materials, such as the total cost of ownership reduction, a company can improve its profits without sacrificing quality and

thus maintaining and improving its profitability. The buyer supplier relationship will ensure an unencumbered supply of raw materials procured at viable prices (Janda & Seshadri: 2001).

The function that exerts an immediate impact on profits is procurement through the reduction in cost of goods sold. It will be demonstrated that through information sharing and improved communication between buyers and sellers the effects of the bullwhip that cripples many businesses today can be eliminated or minimised.

1.5 Motivation of the study

Procurement professionals of leading firms have realised that the arm's length relationship that buying firms are keeping with their suppliers constitutes only a short-term solution. These companies continuously measure the performance of their suppliers and reward well performing ones with long term contracts. In lagging companies a manager's performance is measured in terms of the immediate profits to which he contributes even if doing so means compromising future long run profits (Tyndall, Gopal, Partsch, Kamauff: 1998; Lambert, Garcia-Dastugue & Croxton: 2008). Managers who are concentrating on the future are usually penalised. It is this divide between the best companies and the rest that motivated this study.

The researcher will discuss the procurement process, supplier selection, supplier performance measurement and supplier partnership. These arrangements and others not discussed here are believed to unlock procurement benefits not attainable in the traditional arm's length, competitive, non-trusting mode (Carr & Pearson in Garfamy: 2006; Ryals & Rogers: 2006). From a practical perspective these arrangements must not be viewed in isolation but as interdependent with one another.

1.6 Research Methodology

Literature study

Books in the field of research methodology were utilised.

Data collection

The primary data was collected by means of structured questionnaires mailed to respondents. The sample consists of 30 randomly selected companies from the Financial Mail 100 Best Companies of 2006.

Data Analysis

Data analysis was conducted through the use of Eviews and Microsoft Excel and entails correlation and regression analysis as well as computation of percentages.

1.7 Layout of the thesis

The thesis will be structured as follows: The literature review is covered in chapter 2 and deals with supplier selection, the procurement process, supplier performance measurement, and lastly, but not least, the supplier partnership. In chapter 3 the author discusses research design and methodology. Data analysis is dealt with in chapter 4. The conclusions and recommendations are covered in chapter 5.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In this chapter we shall first look at four aspects of the procurement process as an element of the supply chain, namely, the supplier selection process, the procurement process, supplier performance measurement and lastly, supplier partnership. It will be demonstrated how the best companies differentiate themselves from other organisations by applying state of the art procurement activities, thus creating a competitive edge for themselves.

2.2 Supplier Selection Process

> *It is probable that of all the responsibilities which may be said to belong to the purchasing officers, there is none more important than the selection of a proper source. Indeed, it is in some respects the most important single factor in purchasing.*
> Howard Lewis.

Vonderembse & Tracey (1999) define supplier selection as a process by which suppliers are reviewed, evaluated, and chosen to become part of the company's vendor base. Perfectly competitive markets rest under four assumptions (Pindyck & Rubinfeld: 1998; Mohr & Fourie: 2008), namely, price taking, product homogeneity, perfect mobility of resources, and perfect information. Economic theory teaches that competition between suppliers in perfectly competitive markets results in a lower price being charged. As a result purchasing firms maintained a large supplier base because buyers only had to consider price when choosing which supplier from whom to buy.

This approach was appropriate in the 1960s and 1970s since firms usually sold a homogenous product with little differentiation. As in perfect competition with a large

number of suppliers of a homogenous product, price tended to fall as suppliers competed with one another for business. Since switching costs were low (Caniëls & Gelderman: 2005; Mullins, Walker, Boyd, & Larréché: 2005), buying firms were able to switch from one supplier to the next and contracts were entered into for a very short duration.

The business landscape has now changed. Strong competitive pressures and the turbulent business environment have forced the management of all firms to take a fresh look at their purchasing assumptions. World-class companies recognised that in order to compete effectively in the turbulent world market, they must reduce their vendor base by selecting and maintaining a network of competent suppliers (Petroni & Braglia: 2000; Weber, Current & Benton: 1991).

In a typical input-output process framework, in order to obtain high quality output, high quality input is required. If a buying firm selects suppliers who supply poor quality input products, the final product will be of inferior quality and profits will suffer. It was concluded that a good buy cannot be effected unless the right quality is bought (Ogden & Carter: 2008). It is clear that quality must be factored into the supplier selection equation and not the price tag alone. The first step towards this is to reduce the number of suppliers from whom a company buys.

Reducing the number of vendors with whom a company is dealing is the quickest and easiest practice. The greatest challenge is how firms go about choosing the right suppliers with whom to do business. Supplier selection is more a strategic decision than an operational one since it touches on the financial heartbeat of the company. This is an important activity which cannot be left in the hands of ill-qualified personnel. If this step is poorly executed it will be revealed through poor financial results (Ogden & Carter: 2008). The authors further argue that an organization is only as good as its sources of supply.

As shown in the opening vignette on page 8, the procurement function has been charged with the responsibility of selecting the right suppliers from whom to source goods and

services needed for a company's operations (Sarkis & Talluri: 2002; Bailey & Farmer: 1990; Hugo, Badenhorst-Weiss, van Biljon, & van Rooyen (2006:81). The first step in achieving the objectives of a purchasing function is the selection of the right suppliers (Hahn, Watts, & Kim: 1990, Chartered Institute of Purchasing and Strategy: 2006).

2.2.1 Supplier selection criteria

Commercially sound supplier selection cannot be based on price alone. Other factors must be taken into account. In some instances price is the least important. Supply managers of world class companies perceive quality as the most important criterion, followed by delivery performance and cost (Petroni & Braglia: 2000). These supplier selection criteria must not be seen and understood in isolation as they interact with each other and the effect of the interaction is lost if only one criterion is considered (Weber & Ellram in Bhutta & Huq: 2002; Karpak, Kumcu & Kasuganti: 1999). In the end a company may pay more for a lower priced input product of poor quality than if quality had been factored in initially.

The choice of a supplier selection criterion should not be arbitrary or an isolated event but must be guided by the strategy / focus of the organisation. For example, if a product launch is the firm's focus, suppliers with cutting edge technology should be selected. Buyers must also establish whether the supplier will always be there in times of need and thus assess its financial stability. Financial stability is also important for the firm when embarking on new product development. A supplier who is in dire straits may not be in a position to support such initiatives.

When selecting strategic suppliers it is also important to consider whether the supplier's organisational culture will be congruent with the buying firm's organisational culture (Goffin, Szwejczewski, & New: 1997; Janda & Seshadri: 2001). For example, when searching for new suppliers, Toyota in North America and Japan ensures that the new supplier not only meets its stringent requirements of cost, quality, and delivery but also

that the supplier must demonstrate a commitment to and a good philosophical fit with Toyota.

Location plays an important role in supplier selection (Ting & Cho: 2008; Liker & Choi: 2004; Hirakubo & Kublin: 1998). The distance between supplier and firm is very important, as speed is crucial in business success today. Location will be of utmost importance for firms engaging in the JIT (just in time) philosophy. Firms dealing with suppliers located in foreign countries will have to consider the effects of foreign exchange rates. If suppliers are located in foreign countries every business transaction is exposed to an exchange rate risk (Abor: 2005; Johnson & Pyke: 1999).

2.2.2 Types of supplier selection

Supplier selection is a lengthy, complex and multi-objective (involving consideration of multiple criteria) process. According to Bhutta & Huq (2002), the process is further complicated by the fact that some criteria are qualitative (service, flexibility, etc.) while others are quantitative (price, on time delivery, etc.). The challenge facing the decision maker is how to merge the qualitative and quantitative evaluation criteria and make an objective judgment.

The first step towards the realisation of cost savings is reducing the number of suppliers from whom a company buys. This enables the buying firm to focus its time and resources on managing the remaining suppliers more effectively – leading to improved costs, quality and delivery performance of the remaining supplier (Goffin et al: 1997; Ndubisi, Jantan, Hing & Ayub: 2005).

The supplier selection process involves some trade-offs (Bhutta & Huq: 2002; Petroni & Braglia: 2000). It is difficult to find a supplier who excels in all dimensions of performance. A supplier may offer higher quality products with uncertain delivery; or offer inexpensive parts of slightly below average quality. Therefore an actual choice generally involves trade-off among the attribute levels of different suppliers.

According to Bhutta & Huq (2002) supplier selection is further complicated by the fact that not only the purchasing department is involved. It spans organisational boundaries and involves other departments such as quality control; accounting and finance; environmental management, health and safety; logistics, production, marketing; legal; operations; and engineering, who should form a team. The team members may operate with different perspectives and even motives (Novicevic, Buckley & Harvey: 2000). In some cases there is utter resistance, misuse and scepticism towards supplier selection by the various stakeholders and team members.

2.2.2.1 The weighted approach method

In terms of the weighted approach different weights are assigned to each attribute and then multiplied by the score attained and finally the scores are totalled to arrive at a final rating as shown in the table below.

Evaluation Criteria	Weight (%)	Supplier A		Supplier B	
		Score	Total	Score	Total
Quality performance	16	9.6	1.54	9.3	1.49
Delivery performance	22	8.1	1.78	7.6	1.67
Technical capability	8	10	0.80	8.0	0.64
Quoted price	44	7.5	3.30	9.3	4.09
Service factors	10	6.4	0.64	8.8	0.88
Total	100		8.06		8.77

Adapted from: Smytka, D.L. & Clemens, M.W. (1993). Total cost supplier selection model: A case study. International Journal of Purchasing and Materials Management, Winter, pp. 42- 49

Table 2.1: Simplified weighted point decision matrix

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Table 2.1 is a simplified weighted point decision matrix in which two suppliers A and B are evaluated based on five weighted criteria. The score received is a rating from one to

ten (1 being least and 10 being most desirable) which is then multiplied by the predetermined weight to arrive at a total figure. The supplier with the highest total score obtains the business: in this case it will be supplier B.

According to Monczka, Trent & Handfield (2002) and de Boer, Labro & Morlacchi (2001), the weighted point model relies on two assumptions to justify its usefulness as an effective decision aid: (1) importance weights must accurately represent each selection criterion's proportion of actual purchased cost, and (2) the methods of rating suppliers in each category must be consistent across all suppliers in the evaluation. Experience has shown that most techniques for assigning importance weights rely on subjective inputs and lack the objectivity needed to model true supplier-related costs.

2.2.2.2 The Total Cost of Ownership approach

Total Cost of Ownership (TCO) is defined as all costs associated with the acquisition, use, and maintenance of a good or service (Garfamy: 2006; Heilala, Montonen & Helin: 2007; Ellram in Seetharaman, Khatibi & Ting: 2004). The TCO approach is one of the methods proposed to counter the drawbacks of the weighted approach as well as other methods used in supplier selection. Suppliers must be selected on the basis of how well they meet a variety of specific requirements, and not solely on price (Holmes: 1995; Jayaraman, Srivastava, & Benton: 1999).

The TCO approach goes beyond today's price and takes into account the total purchase cost which includes ordering costs, transport and inventory costs, research costs, transport costs, receiving, inspecting, holding and/or disposal costs (Bhutta & Huq: 2002; Weber & Ellram: 1993). Over and above these actual costs of owning a product the total cost approach also includes opportunity costs and risk factors (Degraeve, Labro & Roodhooft: 2000). Suppliers with the most attractive price are not always the cheapest if one takes into account all the additional expenses associated with the supplier.

2.2.2.3 Developing the total cost model

When using the total cost approach the quoted price is taken as a starting point. The first step in this approach is the selection of appropriate cost factors (Harding: 1998; Weber & Ellram: 1993). The fundamental question to be asked is: What are all the supplier-related factors that affect our business? Smytka & Clemens in Degraeve, Labro & Roodhooft (2000) classified the factors according to three categories namely, (1) risk factors, (2) business desirable factors, and (3) measurable cost factors.

(a) Risk Factors: Risk factors are defined as the essential attributes a supplier must exhibit before qualifying as a credible source.

(b) Business Desirable Factors: These are attributes whose importance cannot be expressed in monetary terms such as delivery performance, quality, and productivity.

(c) Measurable Cost Factors: The measurable cost provides the buyer with a total measurable cost per unit over varying order quantities. This step recognizes that it is not enough to look at the supplier's quoted price. Degraeve & Roodhooft (1999) call these factors internal costs or unit level costs. These costs include inventory, delivery expediting, line down, and non-conformance.

Any of these factors can be included in the determination of the total cost approach.

The next step is the translation of each cost factor into a price adder formula.

On-time delivery performance

The percentage of deliveries that are not on time can be used as a price adder. If a supplier is on time 93% of the time then he is defaulting 7% of the time. A 7% adder for non-delivery will be added to his price.

Quality

Use can be made of the percentage defect as an adder to the quoted price. Each supplier's adder should be an appropriate reflection of its quality performance.

Transportation

The freight charges are used to calculate the freight cost for each unit shipped. This can be obtained by dividing the total freight charges by the number of units shipped.

Lead time

For this a tax per week of lead time is established. One percent price-adder per week of a supplier's quoted lead time is a good starting point. The more important lead time is to the organisation, the higher the tax. This will send a clear message to suppliers that one means business by lead time reduction.

Supplier contributions

For those areas where the suppliers save one money, the suppliers should be given credit. Discounts are added into the calculations as credits.

Recycled content

Establish a percentage credit for recycled content of the level one requires. Credits of 5-10 percent have frequently been used.

The last step involves identifying which activities are generated in the purchasing firm by each individual supplier. The business is awarded to the supplier with the lowest unit total cost (Bhutta & Huq: 2002). The TCO approach achieves objectivity in the supplier selection process. An example of how the approach is applied is given in table 2.2.

Using the total cost of ownership approach, the business would be awarded to supplier 3. This would be the case even though the purchase price may be higher than that of other suppliers. Using the traditional supplier selection criterion of lowest price would have resulted in the business being awarded to supplier 1 but at the end it would be costing the buying company much more to do business with supplier 1. The objective of the total cost approach is to minimize the total cost of ownership.

	Supplier 1	Supplier 2	Supplier 3
Quoted price	$10.00	$11.50	$12.00
On-time delivery	+1.50	+1.27	0
1-% OT	(85% OT)	(89% OT)	100% OT
Quality	+1.30	+0.92	0
% Reject	(13% Rejects)	(8% Rejects)	100% Qual
Transport	+0.09	+0.07	0
$/Qty	($8.95/100)	($7.00/100)	Sweep
Lead time	+1.00	+1.04	+0.84
1%/wk	(10 weeks)	(9 weeks)	(7 weeks)
Recycle		-0.58	-0.68
-5%	No	Yes	Yes
Discounts	-0.20	-0.06	-0.12
Cash	(2%10 Net 30)	(.5%10 Net 30)	(1%10 Net 30)
Cost savings			
Reuse con			-1.00
Kanban			-1.00
Total Cost	$13.69	$14.16	$10.12

Adapted from: Harding, M.L. (1998). How to calculate total purchase cost: Hospital Material Management Quarterly. Vol. 19(4), 9-13.

Table 2.2: The TCO approach

2.2.2.4 Benefits associated with the total cost of ownership approach

The approach leads to the realisation of substantial cost savings. It enables the purchaser to compare alternative purchasing decisions based on objective grounds as opposed to traditional approaches that use past habits or subjective judgments. The model also identifies specific improvements a supplier could make with regards to future purchases (Degraeve & Roodhooft: 1999; Harding: 1998). The information gained from the model can be used to negotiate with suppliers.

2.3 The Purchasing / Procurement Process

Having selected the right suppliers it is now time to put them into use. As a process, purchasing is executed in steps and, depending on the buying situation, the process may be highly extensive to low extensive. Many organisations fail in managing the procurement process because they do not understand it (Croom, Romano & Giannakis: 2000; Parikh & Joshi: 2005). They treat all buying situations in like manner and thus fail to realise the full benefit that may accrue through effective purchasing.

Kraljic in Møller, Johansen, & Boer (2003) classify purchased products as critical items/bottleneck, strategic items, spot items/non-critical, and leverage items. Strategic items are what Chopra & Meindl (2004) call direct materials that are used to make finished goods. Spot items are indirect items used to support the operations of the firm. The purchasing process will vary with each type of purchasing situation as well as product classification. For spot items the purchasing process is less intensive and less exhaustive whereas for strategic items the purchasing process will be intensive and hands-on. However, as suggested earlier procurement personnel in a lagging organisation spend 80 percent of their time on spot items even though these items only contribute 20 percent of the total spending.

Indirect materials are characterised by a large number of transactions with high processing costs relative to the value of the transaction. The objective of procurement should be to reduce the transaction costs of each order and automation through e-procurement may be an appropriate route. The buying firm must stand ready to invest in the required infrastructure. Both the buying firm and the supplier will benefit as a result.

2.3.1 The purchasing cycle

Procurement is a complex process which entails the identification and successful completion of a series of activities (Chan & Chin: 2007). Knowing these activities gives practitioners insight into that which should be managed in order to achieve effective

procurement. The literature regarding purchasing identifies various steps in the purchasing process depending on the nature of the buying situation. There are three buying situations in practice (van Weele: 2005; Kotler: 2000; Mullins, Walker, Jr., Boyd, Jr. & Larréché: 2005), namely, new-task, modified rebuy, and straight rebuy.

The new-task situation is encountered when a new product is purchased for the first time and a completely unknown supplier is used. Each stage of the decision making process is likely to be extensive, involving many technical experts. The modified rebuy occurs when a known product is purchased from an unknown supplier or an existing product from a known supplier. This buying situation is less risky than the new-task situation. The straight rebuy entails the acquisition of a known product from a known supplier (i.e. repeat purchases). These are normally covered by blanket orders or automatic reordering systems to save the purchasing agent reordering time as risk and uncertainty are at their lowest.

The purchasing steps discussed below are mainly based on Hugo & et al. (2006), van Weele (2005) and Sasol (2002). It must be emphasised that these steps will vary from one buying situation to another. The new task may involve all of them while the other two situations may only include some steps and excluding others.

2.3.1.1 Origin of a need

The purchasing need for goods and /or services originates from internal users or from the stores department as part of their replenishment initiative (Hugo et al.: 2006). Where stock is available, only a material requisition document needs to be completed in order to draw material from stores.

2.3.1.2 Description of the need

Clarity and precision of expression is more important in communicating procurement needs since obscurity may result in wrong goods being delivered, which is costly in the long run (Leenders, Johnson, Flynn, & Fearon: 2006).

Describing a need in the minutest detail must also be avoided as it results in escalated costs and stifles continuous improvement by the supplier. Performance specifications must be used instead. End users must communicate their needs to purchasing through purchasing requisitions and not verbally (Hugo et al.: 2006; Monczka, Trent & Handfield: 2002).

2.3.1.3 Selection of suppliers

Supplier selection was discussed at length in the previous chapter. Only a brief summary will be furnished in this section. The nature of the purchase will dictate the procedure to be followed in selecting a supplier (Hugo et al.: 2006). If knowledge of the problem is high and the supplier knowledge is also high, it becomes easy to choose a supplier (Freytag & Mikkelsen: 2007). But where knowledge of both the supplier and the problem are low supplier selection becomes intensive. This step is sometimes skipped in a supplier partnership environment.

2.3.1.4 Drawing the Request for Quotations (RFQ)

The objective of issuing an RFQ is to realise competitive bidding (Monczka et al.: 2002). In situations where the buying situation is complex and the buyer wants to draw on the expertise of the supplier, an RFP (request for proposals) is used.

The language used in the RFQ document should be the official language employed during the bid clarification even if the end user or procurement officer is multilingual. At this stage of the procurement process the end user and the buyer must agree on the evaluation criteria to be used to evaluate the bidders' quotations and not after the quotations have been received and opened (Sasol: 2002; Ellram: 1991).

2.3.1.5 Determining prices and availability

The bid evaluation criteria shall be applied in order to determine which bidder gains the business. Electronic bidding is gaining momentum through the improvements in technology and has much reduced the cycle time for bidding and also the paper work

associated with traditional bidding. References as well as previous experience with the bidder may be drawn upon in order to ascertain availability.

2.3.1.6 Placing the order

The order should be placed with the successful bidder as per the evaluation criteria. The placing of orders is a legally binding step and should reside in one department – the purchasing department. The purchase order should contain sufficient information so that it leaves no possibility for misinterpretation by all the parties concerned (Hugo et al. 2006: 19).

When signing the contract the procurement officer shall satisfy himself that the person signing on behalf of the supplier has authority to bind the supplier (contractual capacity). From the legal perspective, giving or sending a purchase order or letter of award does not constitute a contract. The contract will come into being once the offer has been accepted (Fouché: 2004).

2.3.1.7 Follow-up and expediting

After a contract has been signed the procurement official has to follow-up to ensure that the supplier will be able to meet the delivery obligations. Follow-up is done only on critical, large-dollar and/or long lead-time purchases due to the cost associated with it (Leenders et al: 2006).

The presence of excessive expediting is an indication that the procurement official failed in analysing supplier capabilities during supplier selection. The cost associated with this step can be dramatically reduced if the buyer carries out proper front-end loading and selects suppliers according to their capabilities.

2.3.1.8 Receipt and inspection

Where goods received show signs of having been tampered with, they must be opened and checked in the presence of the delivery agent. This step may also be kept to a

minimum by carefully selecting suppliers who consistently meet quality standards and carriers who consistently meet the delivery deadline without damage to the shipment (Leenders et al.: 2006). According to W. Edward Deming in Briscoe, Lee, & Fawcett (2004) the system of causing quality involves prevention, not appraisals and inspections since the latter only occurs after the event.

2.3.1.9 Invoice clearing and payment

Invoices must be checked and audited to ensure that they reflect contract prices. Electronic funds transfers (EFT) may be effected for early settlement of orders. However, this requires investment in technology on the part of the two contracting parties.

2.3.1.10 Continuously measure and manage supplier performance

The award of the contract and making payment is not the end of the story; perhaps it is the beginning. The procurement official together with the end user must continuously measure and manage supplier performance in order to identify areas of improvement and reward good work (van Weele: 2005). Supplier performance measurement will be discussed at greater length later in the chapter.

2.4 The Purchasing Process and the Procurement Card: Small Purchases

The purchasing process discussed above functions well for large purchases with a huge rand-value but not for small purchases with a low rand-value (Parikh & Joshi: 2005). World-class companies thought it essential to design and implement a purchasing approach suited for small purchases. The procurement card, commonly known as the P-Card, emerged as the best technology to enhance business performance concerned with small purchases (Boulianne: 2005). The primary objective of using purchasing cards is to reduce the administrative burden associated with small purchases.

The P-Card is issued by banks with the Visa, MasterCard, or American Express brand. It is issued to a cardholder for the purpose of purchasing small value transactions. When a

cardholder places an order with a supplier, the supplier must first obtain authorisation from the bank. After authorisation has been obtained, the supplier provides the goods and is paid by the bank / card issuer within 3 days. At the end of the month the bank sends a statement to the cardholder who verifies all transactions and the firm sends a single payment to the bank for all P-Card transactions.

2.5 Supplier Performance Measurement

What gets measured gets done – An old English adage in Freytag & Mikkelsen (2007).

The Aberdeen Group (2005) defines supplier performance measurement as "the process of measuring, analysing, and managing supplier performance to improve quality, reduce costs, mitigate supply risk, and drive continuous improvement in supply value". In itself supplier performance measurement constitutes inter-organisational performance measurement as it deals with performance measurement outside one's own organisation (Schmitz & Platts: 2003). The supplier's actual performance is measured against a benchmark or a standard usually set by world class companies.

Supplier performance measurement helps customer firms to better manage the supplier base, assists in the selection process, helps suppliers meet customer expectations, and provides the necessary assistance for performance improvement in pursuit for supply chain excellence. Performance measurement acts as a radar to reveal the effects of strategies and potential opportunities in SCM. Supplier Performance Measurement (SPM) is intended to continuously improve the performance of suppliers to a set standard which will ultimately help the customer firm to compete in the marketplace. Supplier performance measurement allows the buyer to identify that which supplier performance indicators and/or capabilities need in order to be improved (Sánchez-Rodríguez, Hemsworth, & Martinez-Lorente: 2005).

To be effective, supplier performance measurements must be connected with organisational strategy, reflect business priorities, and integrate both financial and non-financial measures (Chan, Qi, Chan, Lau, & Ip: 2003). The supplier must also perceive a benefit from the supplier performance measurement process so as to support it fully (Wisner, Leong, & Tan: 2005). Therefore procurement must select reliable performance measurements which exert the greatest impact on the company's strategy (Giannakis: 2007). The benefits may include such aspects as extended contracts for suppliers with exceptional performance or the elevation of their status to preferred suppliers.

2.5.1 Levelling the playing field

There is a major debate among both academics and practitioners as to whether supplier performance measurement exerts a positive impact on business performance or not. The results are mixed. The researcher will attempt to answer the question: "under what circumstances does supplier performance measurement positively impact on customer organisational performance?" According to Bourne, Kennerley & Franco-Santos (2004), the organisational context, performance measurement content and process will influence the outcome.

2.5.1.1 Context

Context is defined by Bourne et al. (2004) as being both the organisation's external and internal environments. The structure of an industry determines its performance. If the industry is highly competitive and market uncertainty is very high, supplier performance measurement becomes important. If management breeds and nurtures an environment that is conducive to performance measurement and believes strongly in the influence of supplier performance measurement on the bottom line, SPM will impact positively on customer organisational performance.

2.5.1.2 Content

Content relates to that which is being measured and how the performance measures are structured. Performance measurement is more effective when the measures are

appropriately designed, include multiple dimensions, and are structured in such a manner that helps managers understand the interrelationship and that reflects strategy (Bourne et al: 2004).

Performance measurements are easily understood when expressed in quantifiable terms.

2.5.1.3 Process

Four main processes of performance measurement have been identified (Bourne et al.: 2004): design, implementation, use, refreshing. Design and implementation do influence the outcome and effectiveness of the performance measurement system. Measures must be reviewed regularly so as to verify their impact on strategy. The focus must fall on improvement and learning to keep the measures relevant to the organisation.

2.5.2 Developing and implementing supplier performance measurement

> *You can't improve what you can't measure* – An old English adage in Wisner et al. (2005)

Performance measurements can be either qualitative or quantitative. Qualitative performance measures are those factors for which there is no direct numerical measurement whereas quantitative performance measures may be directly described numerically (Chan, et al: 2003). Albert Einstein's words may be appropriate here (Zikmund: 2003): "not everything that counts can be counted, and not everything that can be counted counts". Efforts must be directed at those measures that have a bearing on organisational strategy and exert the greatest impact on the bottom line.

As already stated, the first step is to decide which performance categories to measure as we cannot cast the net very wide and try to measure everything. The guiding principle is that the measurement selected must improve performance (Parker: 2000). A company's supplier performance measurement system is a living entity that must alter with changes in organisational strategy. It is important that the categories selected enjoy the support of both parties. Feedback on performance must be given timeously so as to correct

deviations in time before they develop into crisis. A supplier performance measurement may follow a course like the one outlined in table 2.3 where delivery is assigned a weight of 40%, quality 40%, and price or cost 20%.

(a) Performance evaluation of delivery

This measure minimises the amount of time between the promised product delivery date and the actual delivery date (Chan et al.: 2003). The acceptance tolerance lies between being on time and up to five days late. If 1,000 parts are due for delivery on 02 May then the valid receipt window is 02 to 07 May. Consider the following delivery history:

Number of parts received	Date Received	Status
100	2 May	On time
650	4 May	On time
100	7 May	On time
50	8 May	Late
100	10 May	Late

Adapted from: Cormican, K. & Cunningham, M. (2007). Supplier performance evaluation: lessons from a large multinational organization. Journal of manufacturing technology management, vol. 18 (4): 352-366.

Table 2.3: Receipt history.

FORMULA:

$$\textit{On Time Delivery} = \frac{\text{Number of parts received on time}}{\text{Number of parts ordered}} \times 100$$

$$= 850/1000 \times 100\ \%$$

$$= 85\%$$

If there were three orders for the month with the following deliveries, the total supplier score will be the average of the three orders:

PO 121 = 85%

PO 122 = 82%

PO 123 = 67%

The average on time delivery score for the above supplier would be (85 + 82 + 67)/3 = 78.

(b) Quality

A supplier's quality indicator is a percentage of the number of parts returned to the supplier compared to the number of parts received from the supplier (Cormican & Cunningham: 2007). The quality criterion is on six sigma strategy. The term sigma is a measure indicating the deviation in the performance characteristic of a product/service from its mean performance. (Antony: 2006). The six sigma goal is to reduce the variance and control processes in order to ensure compliance. The higher the sigma level the higher the compliance rate. A 6σ has a 3.4 defect per million opportunities (Taner, Sezen & Antony: 2007).

The result is reported according to a part per million (PPM) basis and the final points are awarded using a PPM conversion table (see Table 2.4). If the total number of parts received for the period is 4, 937 and the number of parts returned to supplier is 50, then, PPM = (1,000,000/4,937) x 50 = 10, 128 PPM. This translates to 3, 75 σ or 8 points will be awarded to the supplier for quality.

(c) Total Cost

A supplier's total cost metric is derived from a ratio of total cost of quality dollars divided by the total dollars worth of materials received for the period (Cormican & Cunningham: 2007). This metric carries a 20% weighting of the total supplier's score. If the total receipts amount to R652, 000 and the cost of quality is R65 000,

$$\text{Total Cost} = \left(1-\left(\frac{65{,}000}{652{,}00}\right)\right)\times 100$$

Total Cost = (1-0.09969) x 100

Total Cost = 90.03%

This implies that of the total of R652, 000 received from the supplier, it caused the company to suffer a cost of 10% in supplier quality. Thus a 90.03% score is awarded to the supplier.

PPM	Yield	σ	Points
>66, 810	<93, 3190	<3, 00	0.0
66, 810	93, 3190	3, 00	2.0
38, 950	96, 1050	3, 25	4.0
22, 750	97, 7250	3, 50	6.0
11, 870	98, 8130	3, 75	8.0
6, 210	99, 3790	4, 00	10.0
2, 890	99, 7110	4, 25	12.5
1, 350	99, 8650	4, 50	15.0
560	99, 9440	4, 75	17.5
233	99, 9767	5, 00	20.0
86	99, 9914	5, 25	25.0
32	99, 9968	5, 50	30.0
10	99, 9990	5, 75	35.0
<3	99, 9997	6, 00	40.0

Adapted from: Cormican, K & Cummingham, M. (2007). Supplier performance evaluation: lessons from a large multinational organization, Journal of manufacturing technology management, vol. 18, no. 4, pp. 352-366.

Table 2.4: PPM conversion table

(d) Total Supplier Score

The total supplier score based on the three metrics is calculated as follows:

(OTD x 40%) + (Quality x 40%) + (Total cost x 20%)

(78 x 0.40) + 8 + (90 x 0.20)

57.3%

Some companies would go one step further and categorize supplier performance based on the above scores and classify suppliers as follows:

Platinum = 90 – 100%

Gold = 70 – 89%

Red = 69% and below

According to this classification the above supplier would be classified as "Red" and needing urgent attention and assistance.

Price is employed as one of the supplier performance measurement categories. These companies keep a record of all prices charged for a given commodity. Price as a measure relates to the competitiveness of the price charged by a supplier. The supplier's actual price may be compared to the competition or to a market index. Index measures take into account the percentage change in the index as compared to the percentage change in actual price charged as shown below (Monczka et al.: 2002):

1a.	Market-based index for item Y	March 2004	=	125
1b.	Market-based index for item Y	March 2005	=	128
1c.	Market index percentage change	(128-125)/125	=	2.4% increase
2a.	Actual price paid for item Y	March 2004	=	R150
2b.	Actual price paid for item Y	March 2005	=	R152
2c.	Price paid change rate	(R152-R150)/R150	=	1.3% increase
3.	Comparison to market	2.4% - 1.3%	=	1.1% better
	than market.			

Adapted from: Monczka, R., Trent, R., & Handfield, R. (2002). Purchasing and supply management. 3rd ed. Thompson South –Western, Australia.

Table 2.4: Supplier's price versus Index.

If the goal was to beat the market, the action required would be for both supplier and customer to work together to maintain the status quo. If the situation was reversed and the price was higher than that of the market and the goal was to beat the market, the supplier and the customer should arrive at solutions to improve their operations so as to beat the market in the next reporting period.

2.5.3 Barriers to supplier performance measurement programme

It has been accepted in academic and practitioners' circles that supplier performance measurement is an important aspect of the purchasing function. However, its success has been very minimal. The problem usually lies in the lack of supplier involvement in the determination of performance measurement categories and the lack of feedback (Katsikeas et al. in Pressey et al.: 2007). There are also internal and external barriers that hinder the effective application of supplier performance measurement, such as weak accounting systems in the buying firm (Freytag & Mikkelson: 2007).

According to research conducted by Kennerley, Neely & Adams (2003), the following will act as both barriers and enablers of the supplier performance system:

Culture: the existence of a measurement culture within an organisation ensuring that the value of measurement, and thus the importance of maintaining relevant and appropriate measures, is appreciated. Absence of such a culture will act as a barrier.

Process: the existence of a process for reviewing, modifying, and deploying measures. Lack of such processes in an organisation will be an impediment to SPM.

People: the availability of the required skills to use, reflect on, modify, and deploy measures. A skills deficiency in procurement employees will hinder successful SPM.

Systems: the availability of flexible information technology that enables the collection, analysis and reporting of appropriate data. Lack of such systems will block successful SPM implementation.

2.6 Buyer Supplier partnership: Until Death do us Part

> *Tell me who you live with, and I will tell you who you are.* – Lord Chesterfield in Roberts (1992).

The business environment is in a state of flux. During the 1950s and 1960s manufacturing firms relied on mass production to minimise unit cost and inventory was used as a cushion for outages. Information sharing between customers and suppliers was considered risky (Frazier, Maltz, Antia, & Rindfleisch: 2009; Tan: 2001; Tan: 2002).

The twenty-first century ushered in a new wave of business landscape which forced companies to review their basic business assumptions. That which was initially treated as a threat (information sharing) turned out to be a source for gaining the competitive edge. Erstwhile enemies (suppliers and manufacturing firms) found themselves in bed with one another. The utilisation of JIT (just-in-time) requires information sharing and consequently it was no longer necessary to build up inventories to cushion against shortages (Tan: 2001; Ndubisi, Jantan, Hing & Ayub: 2005).

JIT requires the vendor to manufacture and deliver to the company the precise quantity and quality of material at the required time (Bhutta & Huq: 2002). Toyota was able to implement JIT because the suppliers were located around the Toyota plant through its keiretsu structure (Cox: 1999).

Buying firms and suppliers woke up to the reality that they share a common fate and that their success is less tied to their own innate capabilities, but is increasingly defined by the relationships maintained with organisations outside their sphere of influence (Tyndall, Gopal, Partsch & Kamauff: 1998; Mentzer: 2004). Money will flow in their supply chain only if the chain's end products are cost competitive and when they cooperate with each other. This will happen only if they erase the 'supply chain bullies' mentality and embrace partnerships. Harland et al. (1999); Møller et al. (2003) and Bensaou in Dubois & Pedersen (2002) called these closer, longer-term, more collaborative buyer-supplier relationships "partnership." Others refer to it simply as supplier partnership (Ndubisi et al.: 2005; Møller et al.: 2003). In this thesis supplier partnership and partnership will be used interchangeably.

According to Crosby in Briscoe, Lee, & Fawcett (2004), about 50 percent of the quality problems stem from suppliers. Mentzer (2004) states that about 40 percent of the quality problems stem from poor product design which is attributable to failure to involve suppliers in new product development. By partnering with suppliers and involving them early in product development, firms will be able to tackle the quality problem at its source (Mentzer: 2004; Tan: 2001; Ndubisi, Jatan, Hing, & Ayub: 2005). It is believed

that through partnerships, buying firms will be able to shift the responsibility for quality back to their suppliers so that quality can be built-in the first time and every time (Nelson et al., in Briscoe, Lee & Fawcett: 2004). Sometimes the problem does not lie with the first tier suppliers, but with the second tier suppliers. It is therefore essential for buying firms to encourage their suppliers to also form partnerships with their own suppliers (Briscoe, Lee & Fawcett: 2004).

The researcher will now turn his attention to the supplier partnership and attempt exploring the benefits derived from this process. Supplier partnership is discussed and contrasted with our normal social partnerships. While so many volumes have been written about supplier partnership, it is not a bed of roses. Sometimes the partnership turns sour like social relationships where marriages end up in divorce. Managed properly, most marriages last "until death do us part"; likewise properly managed supplier relationships achieve their goals and only dissolve thereafter.

2.6.1 Supplier partnership defined

Lambert, Emmelhainz & Gardner in Lambert, Knemeyer, & Gardner (2004), define supplier partnership as "a tailored business relationship based on mutual trust, openness, shared risk and shared rewards that results in business performance greater than would be achieved by the two firms working together in the absence of partnership". This definition implies that supplier partnership is not a one-size-fits-all. Supplier partnership is defined as an agreement between a buyer and a supplier that involves a commitment over an extended time period (Ellram: 1991; Ellram & Hendrick in Lemke, Goffin & Szwejczewski: 2003; and Gunasekaran, Patel, & McGaughey: 2004), and includes the sharing of information along with a *sharing of the risk and rewards* of the relationship [own emphasis]. It is in a situation where customers undertake formal efforts to develop such a close and long-term relationship with selected suppliers that the two work together as partners.

Supplier partnership is not philanthropic; the aim is to secure the best possible commercial advantage. Supplier partnership will succeed if both parties to the relationship stand to benefit. It is based on the realisation that unity is strength – that teamwork is better than combat (McHugh, Humphreys, & McIvor: 2003; Humphreys, McIvor, & McAleer: 1998). Supplier partnership is thus more of a change in attitude from the adversarial attitude than a change in scope (Wilding & Humphries: 2006).

2.6.2 Why should firms partner with suppliers?

The advantage to mankind of being able to trust one another penetrates into every crevice and cranny of human life (Mill: 1891 in Sako and Helper: 1998).

A supplier partnership is a union of individuals. It is therefore essential that the top management of both companies at least share the same views and can relate to one another other easily. Supplier partnership is often a manifestation of a buying firm's proactive stance towards supply base performance. According to Cox (2001a), individuals and organisations engage in exchange relationships in order to satisfy their desire for money. If the partners do not stand to make money they will not form a relationship: that is, benefits must exceed the risks.

Supplier partnership helps the buying firm by restricting price rises to below market norms, consequently improving the competitiveness of the firm (Dyer & Chu: 2000; Wilding & Humphries: 2006; Janda & Seshadri: 2001). Other benefits include better inventory management and reduced cycle time (Daugherty, Richey, Roath, Min, Chen, Arndt, & Genchev: 2006). Buying firms will no longer have to invest in huge inventory build up, consequently leading to an efficient utilisation of resources.

Other benefits of supplier partnership include (Parsons: 2002; Chen & Paulraj: 2004): reduced risk, more cooperation, increased knowledge, reduced inventory management costs, increased economies of scale based on order volume and learning curve effects, volume consolidation and quantity discounts, improved trust due to communication,

better customer service and market penetration, and information sharing. The benefits to the final consumer stemming from supplier partnerships include consumer satisfaction through increased delivery reliability and accuracy, quality performance, and price reductions.

Parsons (2002) asserts that in addition to the tangible/extrinsic benefits of a supplier partnership that can be traced directly to the bottom line, intangible/intrinsic benefits may also be attained. The experience of working together on development efforts opens the door for continued collaboration and joint innovation between suppliers and their customers (Liker & Choi: 2004), creating an environment that is conducive to a long-term relationship.

A vendor would prefer a long term partnership with a customer because it is less costly to keep an existing customer than to attract a new one (Kotler: 2000). When open channels of communications are established the customer's problems and needs become known and are addressed more easily. The customer firm becomes part of the selling firm.

2.6.3 Why supplier partnership works

Sometimes supplier partnership occurs as a result of pressure for survival. In the 1990s IBM suffered a decrease in its stock price, falling from US$119 in 1990 to US$41 in 1993 (Axelsson, Rozemeijer, & Wynstra: 2005). This "near-death experience" acted as a catalyst for adopting supplier partnership at IBM and procurement was placed in the forefront of the whole change initiative (Axelsson, et al.: 2005).

Supplier partnership will succeed if it is supported by top management which must commit the time, personnel and the wherewithal needed to maintain it (Wisner, Leong & Tan: 2005; Hughes, Ralf & Michels: 1998). This active support from above helps to build momentum and generates confidence. Supplier partnership requires a change in the corporate cultures for all members (Tan: 2001). Culture is a vital aspect of an organisation that can make or break it and its initiatives. Certain cultures will promote

supplier partnership while others will not. It is therefore crucial that both parties begin by performing culture audits in order to determine whether they can accommodate the partnership or not.

As a proactive action, supplier partnership will work if there is a shared vision and objectives between the partners (Wisner, et al.: 2005). The objectives and vision of the partnership must be stated in lucid and agreeable terms. Each partner should state its expectations of the relationship. If the reason for establishing the relationship is that the supplier is the only provider of the material in the market, the relationship is likely to fail.

The interpersonal relationship is of crucial importance since any supplier relationship involves one between specific people (Wisner, et al.: 2005). It is people who make things happen. Not everyone possesses the interpersonal skills required to render a supplier relationship efficient. A partner's reputation also affects trust. If a supply partner enjoys a high and credible reputation in the market place, it would be construed that the partner is trustworthy in relationships.

For partnerships to work there must be an infrastructure available to support information sharing. The customer firm needs to be willing to share its infrastructure with the supplier. Information sharing can take place through Electronic Data Interchange (EDI). EDI has the potential to improve cycle reliability and help decrease cycle time (Tan: 2001; Wilding & Humphries: 2006; Klein & Rai: 2009). The lack of information sharing in a partnership leads to the mismatch between supply and demand and may lead to the bullwhip effect (Kwon & Suh: 2004).

Both informal and formal communication channels should be set up in order to facilitate the free flow of information between parties. Of prime importance, as mentioned, is the sharing of the right information in the right format at the right time by the right people under the right environment in order to maximise the mutual benefits of all players (Huang, Lau & Mak: 2003).

Supplier partnership will also work if it is backed by competent employees. The procurement professionals must possess expertise in the critical functions of their own enterprises and fully understand how it affects the suppliers (Wielding & Humphries: 2006; Liker & Choi: 2004). Such a partnership requires employees to be able to conduct supply market intelligence, which not everyone is able do. Accordingly IBM attracted, motivated and retained the best talented candidates within procurement to back the supplier partnership initiative.

Commonsense requires that parties engage in the partnership as equal partners. However, the reality on the ground is that the buyer-supplier partnership is rarely a union of equals (Brown, Boyett, & Robinson: 1994; Kampstra, Ashayeri, & Gattorna: 2006): one partner, usually the purchaser, is dominant. Cox (2001b) asserts that all buyer and supplier relationships operate in an environment of relative buyer and supplier power. Smart supplier partnership requires acknowledging that not all supply chain partners are equal (Tyndall et al.: 1998; Cassive: 2006).

Power is at the heart of all business-to-business relationships (Cox: 2001b). The success of Japanese supply chains lies in the dominance of buyers over their supply chain partners. Japanese buyers work to create hierarchies of structural dominance over their suppliers (Cox: 2001b), in which the supplier values the relationship, but in which the buyer retains effective leverage over the supplier relationship wherever possible. This represents a supplier relationship of buyer dominance.

Toyota was able to create a demand-pull and JIT systems because it had a dominant power relationship with its suppliers (Cox: 1999). Toyota also trains its North American suppliers on the Toyota Production System at the Toyota Supplier Support Centre which was founded in 1992 (Spear & Bowen: 2006). It is, however, not always possible to move suppliers from their positions of power to buyer power. Buyer competence lies in their ability to try and shift the supplier power to the place where the buyer exercises leverage over quality and cost.

It must be pointed out that a supplier partnership is situation specific and the degree of success will vary from organisation to organisation simultaneously. According to De Toni, Nassimbeni & Tonchia (1994) and Ayliffe (2007) the buying firm should not apply a one-size-fits-all kind of relationship nor apply it rigidly within the pool of suppliers, but rather make it specific according to the type of supplier.

The lack of trust is a stumbling block towards building an effective supplier partnership. Without trust neither party is willing to relinquish the traditional practice of playing the cards very close to its chest and taking on new roles and responsibilities (Daugherty et al.: 2006). Supplier partnership will thrive in an environment of trust, commitment and communication.

2.6.4 Building trust

Trust is an expectation held by an agent that its trading partner will do what they have stated s/he will do and will behave in a mutually acceptable manner (Cox & Hines: 1997; Sako & Helper: 1998; Spekman, Kamauff & Myhr: 1998; Dyer & Chu: 2000). Embedded in this definition is the issue of reliability and integrity as well as openness (Forslund & Jonsson: 2009). Effective supplier partnership rests on the twin pillars of trust and communication (Grieco in Tan: 2001; Bullington & Bullington: 2005; Storey; Emberson & Reade: 2005). Without trust companies will not be able to share confidential information or devote resources needed to make the partnership successful. "Virtually every commercial transaction has within itself an element of trust, certainly any transaction conducted over a period of time (Arrow in Sako & Helper 1998:387)."

Three types of trust can be distinguished (Sako & Helper: 1998; Bullington & Bullington: 2005): contractual trust (will the other party carry out its contractual agreements?), competence trust (is the other party capable of doing what it says it will do?), and goodwill trust (will the other party make an open-ended commitment to take initiatives for mutual benefit while refraining from unfair advantage taking?). All three types of trust are essential for a successful supplier partnership. Trust acts as an informal control

mechanism which enhances the effectiveness of transactions. Trust must not be confused with cooperation; the two are not the same. Cooperation may emerge where no trust exists (Axelrod in Sako & Helper: 1998). Trading parties can co-operate and co-ordinate certain activities but still not behave as true partners (Spekman, Kamauff, & Myhr: 1998).

Mutual trust is established over a prolonged period of bilateral adjustment and not overnight. Partners must first trust each other before they can be committed to a relationship (Kwon & Soh: 2004). According to Kanter in Tucker & Jones (2000), successful business partnerships, just like social human partnerships, emerge after five stages:

- Courtship – where organisations are attracted to each other and discover if they are compatible;
- Engagement – where a commitment to a lasting relationship is made;
- Housekeeping – where it is discovered that the partners have different ideas about the way the business should operate;
- Devising mechanisms and techniques to overcome the differences; and
- Discovering that each partner has changed internally as a result of accommodating the other partner's position.

Trust will germinate in a soil fertilised with a two way flow of information between the buyer and the seller (Dyer & Chu: 2000). Sometimes, because of the marriage of unequal partners, buying firms require suppliers to divulge or share information about their processes without reciprocity; such actions constitute a recipe for the failure of the partnership.

The provision of technical assistance by the buying firm is another condition that facilitates the growth of trust between buyer and supplier and enhances competence trust (Dyer & Chu: 2000). This is a powerful strategy more especially if done by a powerful partner (the buying firm) towards a less powerful partner (the supplier). The supplier will be more grateful for the show of commitment.

Lack of trust between partners is as good as having no partnership at all since every transaction has to be scrutinised and verified, thereby increasing transaction costs to unacceptably high levels (Kwon & Suh: 2004). In such a situation decision makers spend most of their time analysing their partner's credibility and trustworthiness rather than optimising their operations. Effectiveness and efficiency are both sacrificed.

2.6.5 Supplier partnership implementation

The following five-step process map for supplier partnership implementation was identified (Ellram: 1995; Monczka, et al.: 2002). These steps relate to initiatives resulting from the buyer. Steps initiated by the seller are discussed in depth by Cann (1998) and will not be addressed here.

Phase 1: Preliminary Phase

Of utmost importance, there must be a need for establishing the partnership. Partnerships are justified only if they stand to yield substantially better results than the firms could achieve without partnering (Lambert & Knemeyer: 2006). Having identified the golden opportunities, it is now time for managers to evaluate them in terms of feasibility, resources and time requirements, and potential return on investment. A corporate-level executive steering committee must be established. At this early phase the partnership must be formalised so as to eliminate ambiguity and provide focus (Daugherty et al.: 2006).

Phase 2: Identify Potential Suppliers

Adequate care must be taken to select the right partner with whom to tie the knot (Daugherty et al.: 2006). Marriages collapse due to the mismatch of partners; and the same applies to business-to-business partnerships. The team must first determine the partner selection criteria in advance. The selection criteria used for partnerships go beyond the traditional selection criteria of lowest purchase price and include the following (Ellram: 1995; Croxton, Garcia-Dastugue, Lambert & Rogers: 2001; Sarkis &

Talluri: 2002; Ellram in Bayazit: 2006): cultural compatibility of the firms / strategic fit; long-term plans of the supplier for expansion, contraction, or change in business focus; financial stability of the firm; technology / design capability; top management compatibility; and location of production facilities, and willingness to relocate and expand. A bidders' list must be compiled based on those capable of meeting the firm's supply needs.

Phase 3: Screen Potential Partners

The team should meet to rate the potential suppliers employing the criteria designed in phase 2. Only those suppliers that have shown interest in walking the aisle and tying the knot should be pursued. It is important that there is a strategic fit between the supplier selected and the firm. Each supplier must be evaluated using the same criteria and the supplier selected for the partnership must be one that meets the firm's needs.

Phase 4: Establish the Partnership

The bedrock on which to build an everlasting love comprises mutual trust, sharing, and commitment. The same goes for a supplier partnership. Each partner's expectations must be clarified and must be reduced to writing (Ellram: 1995; Freytag & Mikkelsen: 2007). These agreements simply reflect good intentions rather than legally binding agreements since they rest on the bedrock of trust (Freytag & Mikkelsen: 2007). Regular meetings must be held to monitor the progress of the partnership and resolve some teething problems. The interaction should not be limited to the team members but must extend to include the top management of both firms. This will show all parties that there is commitment and support from the top.

Phase 5: Define Details of Agreement and Monitor Status

Once the partnership has been established, it must be monitored to see if the original conditions for cooperation are still valid (Solenen: 2004). The parties need to agree on the specific metrics for monitoring its success. The metrics may include a percent of cost savings to be shared, percent of quality improvements to be achieved, percent of the cycle time improvement desired, etcetera. Deadlines for improvements must be spelt out at this

stage and roles and responsibilities for each party assigned. Upon reaching an agreement, the project may kick-start.

2.7 Summary

In this chapter the author reviewed the relevant literature covering topics in supply chain management that may help to unleash the latent potential of procurement.
The selection and maintenance of a competent group of suppliers and acquisition of required material and services are considered to be the most important purchasing functions of an organization (Jayaraman, Srivastava, & Benton: 1999; Garfamy: 2006; Xia & Wu: 2005). Supplier selection must not be based on a single criterion of lowest price; other factors need to be taken into consideration as well. The decision with regards to supplier selection criteria will be guided by organisational strategy.

To unleash the latent potential of procurement, purchasers will have to automate the transactional part of their jobs free up more time for strategic issues (Giunipero et al.: 2006). The use of EDI and the procurement card come in handy in this regard.

What gets measured gets done. To unleash the latent potential of procurement buying firms must measure the performance of their supplier. The supplier performance measurement benchmarking report of 2002 released by Aberdeen Group found that supplier performance improves 26.6% when measured (Ryals & Rogers: 2006). Buying firms must allow suppliers to undertake a formal assessment of the buying firm and use the feedback to improve the quality of its supplier management efforts (Trent: 2005).

To further unleash the latent potential of procurement, buying firms need to tie the knot with their carefully selected suppliers as doing so has shown to result in customer production improvement (Fink, Eldman & Hatten: 2007). Supplier partnership originates from the realisation that both buyers and suppliers face the same fate and that through cooperation they can achieve much more than they can individually. Partners recognize that their long-term success is as strong as their weakest supply chain partner (Spekman

et al.: 1998). Sound supplier partnership results in manufacturing firms becoming customer of choice or preferred customers (Trent: 2005).

> *The lack of mutual trust is at the heart of many business failures and of course of the economic backwardness of many countries in the world today* (Arrow in Sako & Helper: 1998).

In the next chapter the research methodology will be considered.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

The previous chapter dealt with the literature review. Suppler selection, the procurement process, supplier performance measurement, and supplier relationship were considered in detail. In this chapter the research methodology will be discussed. The purpose of the study is to demonstrate that by adopting unorthodox methods of procurement, managers can improve the profitability of their firms.

According to Grinnell in Kumar (2005), the word research is composed of two syllables, *re* and *search*. The former is a prefix defined as again, anew or over again while the latter is a verb meaning to examine closely and carefully, to test and try, or to probe. Together they form a noun describing a careful, systematic, patient study and investigation in some field of knowledge undertaken to establish facts or principles.

Clough & Nutbrown (2006) differentiate between methods and methodology. Methods can be seen as comprising certain ingredients of research methodology that provide the reasons for using a particular research recipe. Methodology is about making research decisions and understanding why we have made those decisions.

Methodology is as much about the manner in which we live our lives as it is about the way we choose to conduct a particular piece of research. Our personal identity is a driving force in our research foci. What we do and how we do it is informed by who we are, our morals, our race, and our values. We are our own blueprints of our research methodology.

3.2 Characteristics of research

According to Kumar (2005), not all research is research. In order to qualify as research, the process must, as far as possible, be controlled, rigorous, systematic, valid and verifiable, empirical, and critical. These characteristics will be discussed briefly below.

- Controlled: this implies that one must be able to set up the study in a manner that minimises the effects of other factors affecting the relationship.
- Rigorous: the procedures followed to find answers to problems must be relevant, appropriate and justified.
- Systematic: the procedures undertaken must follow certain logical steps, i.e. the steps followed must not be haphazard.
- Valid and verifiable: the conclusions reached must be correct and verifiable by you and others.
- Empirical: the conclusions must be based on hard evidence gathered from information collected from real-life experiences and observation.
- Critical: the process used must be foolproof and free from any drawbacks. The process employed must be able to withstand critical scrutiny.

3.3 Types of research

Research can be classified into three perspectives (Kumar: 2005): application, objectives, and enquiry.

3.3.1 Application

A distinction can be made between pure research and applied research. Pure research or basic research attempts to expand the limits of knowledge or seek knowledge for its own sake (Van Dyk: 2004; Jackson: 2008; Kumar 2005). Its intent is not one of immediate application but the gaining of knowledge. Applied research, on the other hand, is conducted in order to solve real-life problems, and the answers are applied immediately (Jackson: 2008). This study constitutes

applied research as it intends solving real-world problems and can be applied immediately.

3.3.2 Objectives

Scientific research consists of three basic objectives (Jackson: 2008): to describe behaviour; to predict it; and to explain it. Therefore, there are methods that are descriptive in nature, predictive in nature, and explanatory in nature. The descriptive methods attempt to examine situations in order to establish whether they give rise to any general theory (Van Dyk: 2004).

Relational studies investigate possible relationships between phenomena in order to establish whether correlation exists, and if so, its extent. Two predictive or relational methods have been identified (Jackson: 2008): correlational and quasi-experimental methods. A correlational research attempts to discover the existence of a relationship / association / interdependence between two or more aspects of a situation (Jackson: 2008; Kumar: 2005; Zikmund: 2003). A quasi-experimental method allows us to describe and predict.

Explanatory research attempts to determine whether there is any cause-and-effect between variables (Saunders, Lewis & Thornhill: 2007; Jackson: 2008). Exploratory research is undertaken with the objective either of seeking new insight or of assessing phenomena in a new light (Saunders, et al: 2007; Kumar: 2004). Exploratory research is akin to what Kumar (2005) calls radical looking where the familiar is made strange.

3.3.3 Inquiry mode

According to Kumar (2005), two approaches to inquiry can be identified, namely, a structured approach and an unstructured one. The structured approach is classified as quantitative research whereas the unstructured method is classified as qualitative research. Both approaches have their place in research and therefore a researcher must not lock himself/herself solely into one approach. The choice of

an approach should not be decided at the whim of the researcher but should be guided by the aim of the enquiry, and the use of the findings. This study is classified as structured as it is largely quantitative in nature.

3.4 Research Methods

According to Jankowicz (2000) a method is a systematic and orderly approach taken towards the collection and analysis of data so that information can be obtained from those data. Data are raw, specific, undigested and therefore largely meaningless. A collection of data is not information. Information is that which one obtains once data have been arranged in such a way that uncertainty is lessened, queries resolved, and questions answered.

Data collection falls into two broad categories, namely, secondary data and primary data. Secondary data refers to the required data that is already available and only needs to be extracted. This is also called armchair research. Secondary data sources basically comprise documents such as (Kumar: 2005) government publications, other research studies, census, personal records, client histories, service records.

Primary data refers to the information required to be collected from scratch. Three primary data sources have been identified, namely, observation (participant and non-participant), interviewing (structured and unstructured) and questionnaire (mailed questionnaire and collective questionnaire). Jankowicz (2000) argues that the choice of a method of data collection will depend on the objectives of the study, the purpose of data gathering, the amount of control one wants to exert in obtaining these data, and the assumptions one is prepared to make in analysing them.

3.5 Primary data collection

Three primary data collection methods are described in the following paragraphs.

(a) Observation: Kumar (2005) defines observation as a purposeful, systematic and selective way of watching and listening to an interaction or phenomenon as it takes place.

(b) The interview: An interview is a purposeful person-to- person discussion between two or more individuals (Kumar: 2005; Saunders, et al.: 2007). The interview can be structured or unstructured.

(c) The questionnaire: A questionnaire is a written set of standard questions whereby the answers are recorded by the respondents (Kumar: 2005).

3.6 Secondary data collection

Secondary data include both qualitative and quantitative data and may consist of raw data or compiled data. It is classified into the following subgroups (Saunders et al.: 2007):

(a) Documentary secondary data: such data include written materials such as books, journal and magazine articles, and newspapers.

(b) Survey-based secondary data: refers to data collected using a survey strategy, usually by questionnaires that have been analysed for their original purpose (Saunders, et al.: 2007). Three subtypes of survey strategy are used, namely, censuses, continuous/regular surveys or ad hoc surveys.

3.7 Qualitative and quantitative data

Quantitative studies rely on quantitative information (i.e. numbers and figures) while qualitative studies base their account on qualitative information (i.e. words, sentences and narratives). Quality is the “what”; quantity is the “how much”. Qualitative refers

to the meaning, the definition or analogy or model or metaphor characterising something, while quantitative assumes the meaning and refers to the measure of it.

Research methodology in the field of supply chain management is made difficult by the fact that empirical theory building quantitative empirical research is still in its infancy and is therefore more like a moving target (Kotzab, Seuring, Müller & Reiner: 2005). There is no agreement on what constitutes good quantitative empirical research. A well-defined methodological framework for identifying and measuring the relevant characteristics of real processes is missing in SCM research. An objective, situation based on generally accepted procedure does not exist (Kotzab et. al: 2005).

3.8 Research design

"You cannot put the same shoe on every foot." Publilius Syrus (c. 42 BC)

According to Zikmund (2003), the method chosen will be dictated by the objectives of the research methods, the available data sources, the urgency of the decision, and the cost of the data. Researchers agree that there is no best research design for all situations. There is no perfect design. A research method for a given problem is not like the solution to a problem in algebra. It is more like a recipe for beef Stroganoff; there is no one best recipe (Simon in Zikmund: 2003).

For this study, questionnaires were used for the data collection. Kumar (2005) defines the questionnaire as a written list of questions, the answers to which are recorded by the respondents. In a questionnaire it is important that the questions are clear and easy to understand as there is no one to explain the meaning of questions to respondents. The questionnaires should be developed in an interactive style, that is, respondents should feel as if someone is talking to them.

The choice of the questionnaire as a method of data collection was largely influenced by its anonymity since the study is about issues that the respondents may feel reluctant to discuss with the investigator. In addition, the questionnaire was selected as it allows the researcher greater control over the research process (Saunders, et al: 2007).

The questionnaire was the method of choice because the respondents are scattered all over the Gauteng Province and the investigator is subject to a limited budget. The type of population for this study (procurement managers) renders it easier to employ questionnaires since they are highly literate and can easily understand the questions.

Questionnaires can be administered in three different ways:

- Collective administration: occurs when one assembles respondents in one place such as people attending a function or students in a classroom.
- Administration in a public place: this occurs in public places such as shopping malls or pubs. The advantage of this method is similar to collective administration. Its drawback is that it is time consuming.
- The mailed questionnaire: the questionnaire is sent to prospective respondents by mail. A mailed questionnaire must be accompanied by a covering letter. A difficulty with mailed questionnaires is the low response rate.

3.9 Forms of questions

The form and wording of questions is extremely important in a research instrument as they have an effect on the type and quality of information obtained. In a questionnaire questions may be formulated as open-ended or closed-ended. In an open-ended question the possible responses are not given. In a closed-ended question the possible answers are set out in the questionnaire and the respondent ticks the category that best describes the respondent's answer (Kumar: 2005).

3.10 Summary

The chapter considered research methods in depth. Not all research is in fact research. An academic study is a process which can be controlled, is rigorous, systematic, valid and verifiable, empirical and critical.

In exploratory research the researcher questions assumptions which are taken for granted in our daily lives. Through research the familiar is made strange. People are motivated to research that which is based on their personal experience.

Two different research methods are used in practice, namely, primary and secondary research. The choice of the method employed will be dictated by the experience of the researcher, time frame, and budgetary constraints. Primary research can be expensive while secondary research is less so as the information / data is public. The data collected through these methods can be quantitative or qualitative.

There is no one single research design suited for all situations. This research will use the questionnaire as a method of data collection. The next chapter will consider the analysis of data collected through the questionnaire method.

CHAPTER 4
DATA ANALYSIS

4.1 Introduction

The previous chapter dealt with research methodology. It was shown that not all research is research and that there is no one research design suited for all situations. Data becomes information once it has been analysed to provide knowledge. In this chapter, the data analysis is discussed. Data analysis refers to the application of reasoning to understand and interpret the data collected (Van Dyk: 2004). A statistical/econometric package called Eviews was employed for regression analysis. Microsoft Excel was used for certain tables.

4.2 The methodology

4.2.1 Research Instruments

Emailed questionnaires were used as instruments of data collection. The questionnaires are non-standard and were developed / designed by the investigator. Most of the questions in the questionnaires are closed-ended and designed to elicit the information required without difficulty.

The questionnaire was pre-tested with procurement managers within the Anglo American group of companies (where the researcher was employed at the time), in order to test for relevance, structure, content and sequence. Questions were constructed in order to test for the understanding of the procurement process, supplier selection, and supplier performance measurement as well as supplier relationship. It was found that questionnaires elicited the required responses. The instrument used is thus reliable and valid.

4.2.2 Characteristics of the population

The population of this study comprises procurement managers of the 2006 Financial Mail 100 SA Best Companies. It is prohibitively expensive and time consuming to contact every member of the population, and thus a sample was selected. A total of 30 questionnaires were sent out to procurement managers of the randomly selected companies. Nine questionnaires were returned – a response rate of 30%.

4.3 The questionnaire

The questionnaire is divided into five sections, A – E and is attached hereto as Annexure A. In table 4.1 to 4.4 as in the questionnaire, the words 'you', 'your', and 'we', refer to the procurement managers and their firms. The aggregated findings are reported in table 4.1 to 4.4 as mean score and standard deviation (Vonderembse & Tracey: 1999; Parsons: 2002). The individual responses are in the attached Annexure B. In Annexure B, a number below a ranking scale indicates the number of respondents who chose that scale.

SECTION A: SUPPLIER SELECTION

This section is intended to establish how customer firms go about selecting suppliers, that is, whether supplier selection is based on price alone or whether other factors are considered. The questions are ranked on a scale of 1 to 7 (1 least, 7 most). Table 4.1 shows the aggregated findings for supplier selection. A supplier who is reliable, trustworthy, with a strong reputation and offering goods/service of superior quality with a healthy financial pulse, safety record and state of the art technology, is likely to be selected. Price is also a significant consideration as well as BEE considerations. Most companies have reduced their supplier base – a right step towards the right direction.

1. To what extent do the following apply to your company when selecting suppliers?		
	Mean	**Standard deviation**
Financial health	5.78	1.13
Experience	6..00	0.69
Safety record	6.22	0.92
BEE scorecard	5.11	0.99
Technology	5.89	1.20
2. To what extent does the following reflect your reason for selecting a supplier?		
Is trustworthy	6.67	0.67
Is reliable	6.78	0.42
Has a strong reputation	6.33	1.05
Political reasons	2.00	1.25
3. How you trade-off quality, cost and delivery attributes when selecting a supplier.		
Quality	6.67	0.67
Cost	6.78	0.94
On time delivery	6.33	0.94
After sales service	5.78	1.31
Flexibility	5.56	1.50
4. We maintain a large supplier base and let as many suppliers as possible compete for all our tenders.	4.78	0.51

Table 4.1: Supplier selection

SECTION B: SUPPLIER RELATIONSHIP

Traditionally manufacturing companies have kept an arm's length relationship with their suppliers. This section is intended to determine the extent of the animosity or close relationship cultivated between buyers and sellers. It is also ranked on a scale of 1-7 (1 least, 7 most). The findings are shown in Table 4.2

Lack of trust and lack of strategic fit between partners are considered the two prime reasons why supplier partnerships collapse. Information sharing is also considered a prime ingredient of such a partnership but most suppliers do not employ a supporting infrastructure to make it work. Each partner plays its card very close to its chest since its books are still closed to the other partner's perusal. According to Huang, et al. (2003), information sharing may not be beneficial to some entities due to high adoption costs, unreliable and imprecise information. The reason could be attributed to the fact that supplier partnership is still in its infancy and trust has not developed to its fullest.

Price is not regarded as of prime importance in the determination of a sound supplier relationship. One may conclude that most South African companies have grown past the

stage of pitting suppliers against each other in the name of the lowest price. However the low mean score for post-purchase follow-up by a supplier is a cause for concern. One would have expected a higher post-purchase follow-up by a supplier.

	Mean	Standard deviation
1. Information sharing will lower the degree of uncertainty and lead to increased level of trust.	5.22	1.75
2. Our strategic supplier's books are available to us for perusal.	4.00	1.41
3. Our books are available to our strategic suppliers for perusal.	2.67	1.25
4. Lack of trust between partners is the main reason why supplier partnerships fail.	5.78	0.63
5. The relationship with our strategic suppliers is intended to last forever.	5.53	0.67
6. Communication between the supplier and us is always about solving problems created by the supplier.	3.44	0.96
7. Lack of strategic fit between partnering companies is one reason why partnerships fail.	5.56	0.68
8. Our relationship is highly formalised; as such we know what is expected from each partner.	5.33	1.33
9. We are electronically connected with our suppliers to share supply and demand forecasts.	3.00	1.33
10. What do you consider the most solidifying factor in your relationship with your suppliers? (rate each factor from 1 to 7)		
High level of technical know-how of the account representative	6.33	0.94
Supplier who maintains good communication with the customer	4.67	2.05
Post-purchase follow-up by supplier	1.22	1.87
The price of a supplier's product/service	1.11	0.31
Fit between the supplier's product/service and the buyer's need	5.44	2.91
Satisfaction of the buyer & supplier with past interactions	4.11	3.28
Other		

Table 4.2: Supplier relationship

SECTION C: PROCUREMENT PROCESS

Not every good/service needs to be purchased in the same manner. Selectivity is required. This section of the questionnaire is intended to capture evidence as to whether companies do differentiate between large purchases and small purchases in their purchasing strategies. The findings are shown in Table 4.3.

	Mean	Standard deviation
1. We always go through all the formal purchasing steps (i.e. need identification, issue purchase requisition, write formal request for quotation, invite bidders, evaluate bids, and award contract/placing an order) for both large and small purchases.	4.22	1.69
2. In crafting commodity strategies we often make use of purchasing portfolio models.	4.67	1.05
3. For high value, high risk items we involve other functions in decision making.	6.44	0.50
4. We make use of the procurement card for small repetitive purchases (A procurement card or P-Card is issued by banks with the Visa, MasterCard, or American Express brand to a cardholder for purchasing purposes. It is like a credit card issued to the procurement officials or end users).	1.67	0.82
5. Most of our procurement time is normally spent on placing orders and resolving problems for routine items.	4.67	1.33

Table 4.3: The procurement process

Procurement is everyone's business as evidenced by the involvement of other functionaries in selecting high value, high risk items. However, many companies spend their time on routine activities such as placing low value orders. The use of the P-card is at its lowest which bears testimony to the fact that most companies spend most of their time on routine activities. This implies, as suspected, that procurement officials in many companies still spend 80% of their time on items that contribute 20% of the total procurement value. To succeed the reverse is required, whereby procurement staff will spend most of their time on strategic items.

SECTION D: SUPPLIER PERFORMANCE MEASUREMENT

Having selected the right suppliers through the supplier selection process discussed in section B, it makes sense to conduct a post-mortem to ensure that the selected supplier is performing according expectations. Performance measurement will highlight areas of strengths and areas requiring improvement.

	Mean	Standard deviation
1. We measure the performance of our suppliers on a regular basis.	5.33	1.41
2. Supplier performance measurement helps us in selecting partners for the long haul.	4.78	1.47

Table 4.4: Supplier performance measurement

Supplier performance measurement is performed on a regular basis. This is expected to help firms identify areas for improvement before they become a crisis. This will only occur if feedback is communicated promptly and suppliers are allowed ample time to take corrective action. The information obtained from performance measurement is used to select suppliers in order to establish a supplier relationship.

SECTION E: GENERAL

This section of the questionnaire is intended to determine or classify the company into small and medium enterprises (SMME) or big business. The response to the questions regarding company classification was very poor and thus not useful for empirical analysis.

Highest educational qualifications

The levels of educational qualifications for the different respondent companies are depicted in fig. 4.1. Almost 40% of the procurement staff is made of people with a matric qualification and only 6% have masters' degree. This is in line with Handfield & Nicols' (2004) research findings that many purchasing staff do not possess the required skills nor are they ready to handle the significant challenges in the business environment.

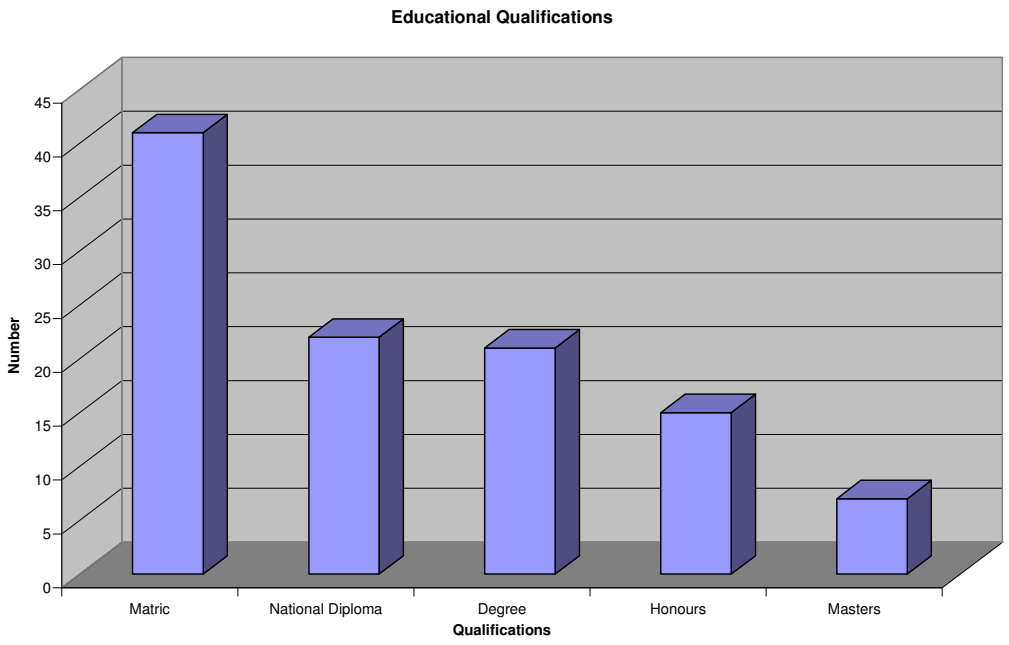
This is cause for serious concern as procurement officials are supposed to conduct business with seasoned, astute and highly qualified supplier sales staff. Many organizations will prefer to educate a marketer rather than a procurement official – ignoring the simple fact that nowhere is there a seller without a buyer (Farmer: 1997; Fung: 1999). Buyers and sellers influence each other's behaviour.

Skills can positively influence a firm's performance (Feisel, Hartmann, & Schober: 2007). To succeed as a procurement or purchasing professional requires continued study and self-improvement (Dobler & Burt: 1996; Feisel, et al.: 2007). A study on the remuneration of chief purchasing officer (CPO) conducted by Zsidisin, Ogden, Hendrick,

& Clark (2003) found that human capital factors (such as education level) have no significant influence on the remuneration of the CPO. This explains partly why educational levels continue to fall short in procurement departments.

Over the past years many companies placed chief purchasing officers with little or no experience in their organizations (Smeltzer; and Moore, Baldwin, Camm & Cook in Feisel, et al.: 2007) The filling of procurement positions with people with little or no skills shows not only the shortage of skilled professionals but also that purchasing expertise is not seen as the most important characteristic for the execution of procurement duties (Fiesel, et al.: 2007). A study conducted by Håkansson & Wootz in Feisel et al. (2007) showed that an educated worker deals with risk much better than an uneducated one.

Figure 4.1: Educational qualifications



At Toyota Japan and North America people are regarded as the most significant asset and the company never stop investing in their knowledge and skills since this is seen as necessary to build competitiveness (Spear & Bowen: 2006). Toyota has overtaken Ford to become the second-largest carmaker (Spear: 2006).

4.4 Regression analysis

A regression analysis was conducted in order to measure the relationship (if any) of certain variables of the questionnaire. The general multiple regression model is expressed in the following formulation:

$Y_t = \beta_1 X_{t1} + \beta_2 X_{t2} + \ldots + \beta_k X_{tk} + \mu_t$

B_1 is the intercept term and represents the average value of Y when X_2 and X_3 are set equal to zero. B_2 and β_3 are partial slope coefficients. B_2 measures the change in the mean value of Y per unit change in X_2. Similarly β_3 measures the change in the mean value of Y per unit change in X_3.

Trust is regarded as a dependent variable whereas information sharing and communication are independent variables. The data was obtained from the questionnaires received (Tan: 2002). The regression equation is expressed as follows:

$$TRUST = \beta_1 + \beta_2 INFOSHR + \beta_3 COMM + \mu$$

The regression analysis was run and the results are as shown below:

TRUST = -0.721 + 1.318 INFR – 0.159 COMM

(0.408444) (0.523436)

The figures in parentheses represent the standard errors.

Theoretically, it is to be expected that the Trust level will increase with increases in information sharing and communication between buyers and sellers. It is immediately noted that the regression coefficient of communication is negative as well as the intercept term, which goes against that which we would expect.

According to Ramanathan (1998) and Gujarati (2003) the regression coefficient has the proper interpretation only when other things are equal. If one increases the level of communication by one more meeting, holding information sharing constant, the level of trust will, on average, decrease by 0.159 index points. The researcher says on average because the relationship between trust, information sharing and communication is inexact (Gujarati; 2003). The negative relationship may be due to the fact that the type of communication referred to in the questionnaire is only centered on putting out fires

created by suppliers. If the communication was of a strategic kind whereby buyers and suppliers exchange strategic information such as demand forecast and new product development, the relationship could be positive.

If we increase the level of information sharing by one more session, holding communication level constant, the average level of trust will increase by 1.318 index points. The literal interpretation of β_1 the constant can sometimes be dangerous. Sometimes it will have a clear meaning and sometimes not. It indicates the predicted level of trust when information sharing and communication is kept at zero (Gujarati: 2003). If we keep the communication and information sharing levels at zero, the trust level will decrease by 0.721 index points. The t-statistic of Communication is insignificant and well below 2 (-0.303932). The estimated coefficient of information sharing is statistically significant, with the t-statistic value in excess of 2 (3.228687).

The overall regression fit, as measured by the R^2 value indicates a slightly tight fit of 77%. It means that about 77% of the variation in trust level is explained by communication and information sharing. The Durbin-Watson (DW) statistic measures the serial correlation in the residuals. The rule of thumb is that if a DW is less than 2, there is evidence of positive serial correlation. Our DW of more than 2 indicates that there is no evidence of first-order autocorrelation, positive or negative.

The Breusch-Godfrey test for serial correlation in the residuals was conducted and the "Obs*R-squared" probability value of 6.953112 exceeds the critical χ^2 value of 6.25139 at 10% level of significance of the third-order. This means there is an absence of serial correlation at the third-order. The R^2 improves to 99%.

It was again tested whether firms use the information gathered from supplier performance measurement to select suppliers for the long term supplier partnership. A single equation regression model of the following form was estimated:

$$SUPSEL = \beta_1 + \beta_2 PERFM + \mu$$

$$SUPSEL = 3.362 + 0.336PERFM + \mu$$

(2.983189) *(0.327448)*

If companies increase the practice of supplier performance measurement by one more period, supplier selection for the long term supplier partnership will increase by 0.336. The value of the R^2 is very low at 17.4%, implying a very much less than perfect fit. The DW statistic is 2.103 which implies the absence of serial correlation.

4.5 Hypothesis testing (Regression Equation)

$TRUST = \beta_1 + \beta_2 INFOSHR + \beta_3 COMM + \mu$

H_0: $\beta_2 = \beta_3 = 0$. The regression equation is not significant.

H_1: One or all the $\beta_i \neq 0$. The regression equation is significant.

F-statistics	ρ-value
6.549451	0.054725

A Wald test was conducted to test the above hypothesis. By conducting the test at a 10% level of significance, we reject the null hypothesis that all slope coefficients (excluding the intercept) are equal to zero since the ρ-value is less than the level of significance. We conclude that at the 0.1 level of significance the multiple regression equation is significant. The same may not hold if the test was conducted at the 5% level of significance as the ρ-value is more than the significance level.

4.6 Hypothesis testing (partial regression coefficients)

H_0: $\beta_i = 0$. The population coefficient is 0

H_1: $\beta_i \neq 0$. The population coefficient is not 0

$t = b_i - 0/s_{bi}$

The t-statistics for β_2 and β_3 are 3.228687 and -0.303932, respectively. For $df = n-k-1$ or (7-2-1) = 4, critical values for the 0.05 level of significance are t = -2.776 and t = +2.776. The calculated t-statistic for β_2 lies inside the stated limits, whereas the calculated t-statistic for β_3 falls outside the stated limits. We fail to reject the hypothesis that either β_2 or β_3 are 0.

4.7 Limitations

The limitation of this study is that it is not known whether the procurement managers completed the questionnaires themselves or whether this task was delegated to lower level staff. A focus group could have been used but this would have been too costly. However, the data collected is considered valid and reliable.

4.8 Summary

There is no one approach to research methodology. The method selected will largely depend on the knowledge of the researcher regarding the available research approaches as well as the urgency of the results and the available budget at the disposal of the researcher. A choice has to be made. A research project is a mirror image of the researcher.

In this chapter as well as the whole research project, a choice was made to employ questionnaires as a method of collecting primary data. The advantages and disadvantages of this method of data collection were discussed at great length. The researcher believes the questionnaire is the most appropriate method given the budget constraints facing him.

As companies move away from adversarial relations with their suppliers it is important that they communicate to a greater extent and share strategic information with each other as doing so will help to build the trust needed in a supplier relationship. It became evident in this study that buying companies do not discriminate between large and small purchases and that the use of the p-card has not gained ground in many companies.

One of the challenges faced by companies in South Africa is the upgrading of the educational levels of their employees. These companies must devote a huge percentage of their budget towards improving the educational levels of their workforce. Partnerships can be forged with educational institutions in order to develop procurement specific diplomas so as to equip them for the challenges of today. Failing to address the skills

shortage in procurement will result in key positions in procurement being filled by individuals from other functions as pointed out by Burt, Croom, Steffel & Valdez (2004). The skills gap in procurement also explains why many organisations do not have a procurement executive reporting directly to the CEO.

Usually poorly qualified employees tend to construct impermeable comfort zones and oppose anything new that threatens to change what they already know. The danger of such an attitude is that the competition is innovating and slowly eating your lunch. GM continued to adhere to their traditional arm's length approach for a long time (Beth, Burt, Copacino, Gopal, Lee, Lynch, & Morris: 2006; Kim & Michell: 1999), while Chrysler, Toyota and Nissan were innovating. Today GM is on the verge of collapse because it continued to cling dearly to its arm's length approach even in the face of the changing business landscape. A company cut costs to survive and innovate to prosper (Beth et al.: 2006). Today GM is only surviving while Toyota is prospering.

According to Brand (1998) innovation cannot be farmed out in one or two individuals; it must permeate the entire fabric of an organization. The author further posits that at 3M they encourage promotion from within and lifetime employment. This is so because some innovation often happens at a margin as a gentle flame that needs fanning. If job horizons are short nobody will have time to fan the innovation to maturity.

The next and final chapter includes the conclusion and recommendations.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

The previous chapter dealt with data analysis. In this last chapter, the researcher will draw conclusions regarding the thesis. "Our people are our most important assets" is a statement often uttered by CEOs of successful companies when they publish financial year end results. For procurement to be able to unearth its latent potential and occupy its rightful place in the boardroom, it will largely rely on well qualified and well motivated employees.

5.2 Conclusions

Carr & Smeltzer (2000) indicated that employees in the procurement division were traditionally placed without regard to the specific skills they possess. The trend is still true in most SA companies today. As it was revealed in the previous chapter, 40% of the procurement function's labour force is made of matriculants. Companies that innovate best and prosper are those that are endowed with skilled personnel (Beth, Burt, Copacino, Gopal, Lee, Lynch, & Morris: 2006). The business landscape has changed and likewise the skills required for purchasing personnel. It was noted in Gadde and Håkansson (2001) that the skills for purchasing become much more multifaceted and sophisticated as the game changes. More emphasis is being placed on the ability to innovate, manage relationships and leadership.

It is not by default that the procurement function is staffed by under-qualified personnel. A typical job advertisement for an entry level position will state grade 12 or equivalent as the minimum educational qualification. In some cases this is the case even for managerial positions. However, the researcher is not proposing a ban on the employment of matriculants in the procurement function, although it is sometimes cheaper to do so.

Those companies that prefer to hire matriculants to avoid paying a premium salary for graduates should stand ready to upgrade the educational levels of such employees while also formulating strategies to retain them.

In order for procurement to unleash its latent potential it is required that procurement managers inculcate the spirit of innovation (doing things differently) amongst their employees. It was shown in chapter 1 that procurement has much to offer towards the profitability of organisations but only if procurement managers can start viewing their jobs and the function in a strategic manner. This would require procurement managers to abandon their traditional practice of pitting suppliers against each other and awarding business to the lowest bidder. This will pose a daunting task to many companies unless they also address the personnel issues raised in the above paragraph.

With regard to the procurement process, it was highlighted that it is not always necessary to follow all the procurement steps when purchasing an item. A procurement card was introduced and discussed in chapter 2. The P-card is used for purchasing low value items, thus enabling an organisation to bypass some of the procurement steps and allowing it to save valuable time that may be devoted to strategic issues.

Supplier selection was also dealt with at great length. It was shown that the supplier selection criteria must be decided before the tenders are returned by the bidders. It was also explained that in order to make an informed decision regarding the award of the contract, the criteria must not be solely based on (lowest) price; other criterion such as delivery time, lead time, quality, experience, etcetera must be considered. The total cost of ownership and the weighted approaches were contrasted and it was found that the total cost approach is more appropriate.

That which "gets measured gets done". Measurement must be based on company priorities since not everything that can be counted counts, in Einstein's words. These priorities must be communicated to all employees involved in supplier performance measurement as well as the suppliers being measured. It is important that supplier

performance measurement be conducted with a view to improving performance rather than as a stick to punish suppliers. Well performing suppliers should be rewarded by means of extended contracts and preferred supplier status. "What gets rewarded gets repeated", John E. Jones advised in Williamson (2006).

The ultimate aim of any procurement strategy should be the uninterruptible continuity of supply. This is achieved by means of forming relationships with selected suppliers. This does not happen overnight; it takes time. The three sections described above lead to a supplier relationship. Like our social relationships that start from dating and turn into mature marriages, supplier relationships also follow a similar course. A successful supplier relationship requires a full backing of the top brass. Such a relationship is a union of individuals. The top brass must be ready and willing to meet each other to share the strategic direction of their companies.

The fact that many respondent companies in our survey do not use the P-card is an indication that valuable procurement time is spent on non-value adding procurement activities. The introduction of the P-card could save valuable time which might be better spent on strategic issues. The purchasing strategy matrix is one valuable tool that aids in strategic planning but it is not used by most companies. Not all purchases are the same and they should be treated differently. The purchasing strategy matrix plays a crucial role in guiding procurement professionals to treat suppliers and purchases according to the merit they deserve.

Long lasting relationships (both social and business) are born out of trust, which takes time to build. Once built, relationships must be nurtured in order to blossom. It was shown in the discussion that information sharing and communication are solid building blocks for trust. The focus of regular communication should not fall on fire fighting, but rather on the strategic directions of both the companies which should become a normal business practice. As communication and information sharing increase we would expect to see the level of trust between suppliers and buyers improving.

The response rate for the questionnaire distributed to potential respondents presented a serious problem. Even though the respondents agreed to participate in the survey before the questionnaires were sent out, many were unwilling to return the questionnaire, citing work pressure as an excuse. However, the 30% response rate is considered sufficient in order to make some inferences about the population.

5.3 Recommendations

Companies need to differentiate between purchases. Small repetitive purchases need to be channelled via the P-card and major purchases through the normal tendering process. The purchasing strategy matrix must be used as a guide to differentiate purchases.

The practice of awarding contracts based on the sole criterion of price must be avoided at all costs. Other evaluation criteria must be factored in. The supplier evaluation criteria must always be guided by the strategic direction of the company.

After a supplier has been awarded a contract, performance measurement must be established. This will help to ensure that suppliers deliver as per contract. Timeous feedback must be given to suppliers so as to ensure corrective action from suppliers. Well-performing suppliers must be rewarded by extended contracts while lagging ones must be assisted where possible.

Long term supplier partnerships must be fostered and cultivated with deserving and strategic suppliers. It must be ensured that all parties of the relationship stand to benefit from the union, as failure to do so may lead to failure of the supplier relationship. Parties should not take advantage of each other since doing so may doom the relationship to failure.

It is also important that lines of communication between the parties remain open. The buying firm must be ready to provide the required infrastructure to promote communication. It is also crucial to ensure that there is strategic fit between the supplier

and the buying firm. After all, the relationship is a fit between a supplier's marketing strategy and the buyer's procurement strategy.

Firms need to elevate the procurement function beyond the service function by ensuring that procurement officials spend most of their time on strategic items which contribute 80% of the bottom line.

Transaction costs associated with shop items need to be minimised, thus freeing more time for procurement officials to think and act strategically. Firms must form relationships with strategic suppliers, share demand information, and measure the performance of suppliers to ensure continuous improvement. Firms need to encourage procurement officials to improve their educational levels so as to be able to cope with these new challenges posed by strategic procurement with emphasis on total cost of ownership reduction and value-added activities such as negotiation, total cost analysis, and supplier evaluation. The purchasing function cannot re-orientate to meet these new strategic challenges without a corresponding shift towards addressing the changing human resource requirements (Faes, Knight, & Matthyssens: 2001).

As organizational capabilities these strategic procurement initiatives discussed in this dissertation engender sustainable competitive advantage since they take time to develop and are path dependant (Chen, Paulraj, & Lado: 2004) and thus help unlock the latent potential of procurement. Firms that have adopted such a strategic approach seem to prosper than those that do not (Chen, et al.: 2004).

Greater returns often go to the firm that challenges the status quo and changes the established rules of competition thus rendering the leader's competencies obsolete (Knudsen: 2003). Supplier partnership, supplier performance measurement, supplier selection methods, as well as the procurement process discussed in this dissertation will provide the competitive edge that enables both partners to prevail and grow (Horvath: 2001).

It is hoped that this study has made a contribution towards elevating the status of procurement/purchasing to a strategic level and thus unlocking its latent potential as an element of supply chain management.

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APPENDIX 1
Questionnaire

39 Kamelia Road
Karen Park
0118
10 October 2008

TO WHOM IT MAY CONCERN

INFORMED CONSENT DOCUMENT

Dear Sir/Madam

This survey is being conducted by **Jonas Mhlarhi**, MA (Economics) Telephone number (012) 682 6073 cell phone number 082 446 3541in partial fulfilment of the degree of Masters of Business Administration at the Graduate School of Business, University of KwaZulu Natal, Westville Campus. The title of the thesis is: Unleashing the latent potential of procurement as an element of supply chain management. The project is being supervised by Dr Maxwell Phiri University of KwaZulu Natal, telephone number (031) 260 1553

The aim of the project is to understand the evolution of purchasing/procurement from a Cinderella function it once was to a strategic function it is today. Even though the strategic importance of procurement is well documented in the literature and practised by world class organizations, in some companies the procurement function is still regarded as a mundane function with no strategic importance. The project also attempts to understand the types of relationship that exist between buying companies and their suppliers and how different products are purchased. The researcher is of the opinion that by adopting effective procurement approaches the firm can realize more benefits than it can through the traditional approach.

Your company is one of the few companies that are being asked to give an opinion on these issues. It was drawn in a random sample of the Financial Mail Top 200 SA Companies for 2006. In order that the results will truly represent the thinking of these total FM Top 200 companies, it is important that each question be answered and the questionnaire returned.

By participating in this study you will learn how other companies have streamlined their procurement divisions to become winning companies. The result of the survey will be available in the form of a thesis at the Graduate School of Business, University of KwaZulu Natal, Westville Campus.

The data collected from the survey shall be treated as confidential and no mention of company name will be made in the thesis. Participation in the study is voluntary and participants are free to withdraw at any time of the study.

I will be most happy to answer any questions you might have. Please feel free to call me at 082 446 3541.

Thank you for your assistance.

Yours Sincerely,

Jonas Mhlarhi, MA (Economics)

UNIVERSITY OF KWAZULU NATAL

GRADUATE SCHOOL OF BUSINESS

MBA THESIS QUESTIONAIRE

STUDENT NAME: JONAS MHLARHI
Email: mhlarhi59@yahoo.com

SUPERVISOR: Dr MAXWELL PHIRI
Email: phirim@ukzn.ac.za

Participation in the survey is voluntary. The information provided shall be treated as confidential and shall only be used for this research. The survey is conducted on an anonymous basis. The questionnaire is divided into 4 sections.

SECTION A: SUPPLIER SELECTION

Rank the following on a scale of 1 to 7 (1 least, 7 most). Please tick one block per question.

1. To what extent do the following apply to your company when selecting suppliers?

	1	2	3	4	5	6	7
Financial health							
Experience							
Safety record							
BEE scorecard							
Technology							

2. To what extent does the following reflect your reason for selecting a supplier?

	1	2	3	4	5	6	7
Is trustworthy							
Is reliable							
Has a strong reputation							
Political reasons							

3. How you trade-off quality, cost and delivery attributes when selecting a supplier.

	1	2	3	4	5	6	7
Quality							
Cost							
On time delivery							
After sales service							
Flexibility							

4. We maintain a large supplier base and let as many suppliers as possible compete for all our tenders

1	2	3	4	5	6	7

SECTION B: SUPPLIER RELATIONSHIP

1. Information sharing will lower the degree of uncertainty and lead to increased level of trust

1	2	3	4	5	6	7

2. Our strategic supplier's books are available to us for perusal

1	2	3	4	5	6	7

3. Our books are available to our strategic supplier's for perusal

1	2	3	4	5	6	7

4. Lack of trust between partners is the main reason why supplier partnerships fail.

1	2	3	4	5	6	7

5. The relationship with our strategic suppliers is intended to last forever

1	2	3	4	5	6	7

6. Communication between the supplier and us is always about solving problems created by the supplier

1	2	3	4	5	6	7

7. Lack of strategic fit between partnering companies is one reason why partnerships fail

1	2	3	4	5	6	7

8. Our relationship is highly formalised as such we know what is expected from each partner

1	2	3	4	5	6	7

9. We are electronically connected with our suppliers to share supply and demand forecasts

1	2	3	4	5	6	7

10. What do you consider the most solidifying factor in your relationship with your suppliers (rate each factor from 1 to 7)

Solidifier	Rating
High level of technical know-how of the account representative	
Supplier who maintains good communication with the customer	
Post-purchase follow-up by the supplier	
The price of the supplier's product/service	
Fit between the supplier's product/service and the buyer's need	
Satisfaction of the buyer & supplier with past interactions	
Other: Please specify	

SECTION C: PROCUREMENT PROCESS

1. We always go through all the formal purchasing steps (i.e. need identification, issue purchase requisition, write formal request for quotation, invite bidders, evaluate bids, and award contract/placing an order) for both large and small purchases

1	2	3	4	5	6	7

2. In crafting commodity strategies we often make use of purchasing portfolio models

1	2	3	4	5	6	7

3. For high value, high risk items we involve other functions in decision making

1	2	3	4	5	6	7

4. We make use of the procurement card for small repetitive purchases (A procurement card or P-Card is issued by banks with the Visa, MasterCard, or American Express brand to a cardholder for purchasing purposes. It is like a credit card issued to the procurement officials or end users)

1	2	3	4	5	6	7

5. Most of our procurement time is normally spent on placing orders and resolving problems for routine items

1	2	3	4	5	6	7

SECTION E: SUPPLIER PERFORMANCE MEASUREMENT

1. We measure the performance of our suppliers on a regular basis.

1	2	3	4	5	6	7

2. Supplier performance measurement helps us in selecting partners for the long haul

1	2	3	4	5	6	7

3. What are the top priorities of your supply chain in order of importance (7 top priority and one least important)

Factor	Rating
Security of material supply	
Adaptive supply chain strategies	
Managing the supply base	
Cost reduction	
Increased speed	
Other: Please specify	

SECTION D: GENERAL

1. Turnover

	1	2	3	4
Annual turnover (ZAR)	<R10 million but >R20million	R20million > R50million	R60 million <R80 million	More than R100 million

2. Company Staff establishment

	100-500	500-1500	1500-3000	3000 and above
No of employees				

3. Division Staff establishment

	10-20	21-30	31-40	More than 40
No of employees in Procurement division				

4. Highest Educational qualifications

	Matric Certificate	National Diploma	Degree	Honours	Masters
No of employees in Procurement division					

5. Cost structure

	<50%	50% - 60%	61% - 70%	>70%
Material Cost as % of sales				

6. Reporting structure

(a) Is your procurement and supply function a stand alone functionary with a procurement executive reporting directly to the CEO?

Yes	No

ANNEXURE B

SECTION A: SUPPLIER SELECTION

Rank the following on a scale of 1 to 7 (1 least, 7 most). Please tick one block per question.

1. To what extent do the following apply to your company when selecting suppliers?

	1	2	3	4	5	6	7
Financial health			1		1	5	2
Experience					2	5	2
Safety record					3	1	5
BEE scorecard				3	3	2	1
Technology				2	1	2	4

2. To what extent does the following reflect your reason for selecting a supplier?

	1	2	3	4	5	6	7
Is trustworthy					1	1	7
Is reliable						2	7
Has a strong reputation				1	1	1	6
Political reasons	5	1	1	2			

3. How you trade-off quality, cost and delivery attributes when selecting a supplier.

	1	2	3	4	5	6	7
Quality					1	1	7
Cost				1		3	5
On time delivery					3		6
After sales service				3		2	4
Flexibility			1	2	1	1	4

4. We maintain a large supplier base and let as many suppliers as possible compete for all our tenders

1	2	3	4	5	6	7
		4	3	2		

SECTION B: SUPPLIER RELATIONSHIP

1. Information sharing will lower the degree of uncertainty and lead to increased level of trust

1	2	3	4	5	6	7
			1	2	3	2

2. Our strategic supplier's books are available to us for perusal

1	2	3	4	5	6	7
	2	1	3	1	2	

3. Our books are available to our strategic supplier's for perusal

1	2	3	4	5	6	7
1	5		2	1		

4. Lack of trust between partners is the main reason why supplier partnerships fail.

1	2	3	4	5	6	7
				3	5	1

5. The relationship with our strategic suppliers is intended to last forever

1	2	3	4	5	6	7
			1	4	4	

6. Communication between the supplier and us is always about solving problems created by the supplier

1	2	3	4	5	6	7
	2	2	4	1		

7. Lack of strategic fit between partnering companies is one reason why partnerships fail

1	2	3	4	5	6	7
			1	2	6	

8. Our relationship is highly formalised as such we know what is expected from each partner

1	2	3	4	5	6	7
		1	1	4		3

9. We are electronically connected with our suppliers to share supply and demand forecasts

1	2	3	4	5	6	7
1	3	2	1	2		

10. What do you consider the most solidifying factor in your relationship with your suppliers (rate each factor from 1 to 7)

Solidifier	Rating
High level of technical know-how of the account representative	
Supplier who maintains good communication with the customer	
Post-purchase follow-up by the supplier	
The price of the supplier's product/service	
Fit between the supplier's product/service and the buyer's need	
Satisfaction of the buyer & supplier with past interactions	
Other: Please specify	

SECTION C: PROCUREMENT PROCESS

1. We always go through all the formal purchasing steps (i.e. need identification, issue purchase requisition, write formal request for quotation, invite bidders, evaluate bids, and award contract/placing an order) for both large and small purchases

1	2	3	4	5	6	7
	2	2		3	1	1

2. In crafting commodity strategies we often make use of purchasing portfolio models

1	2	3	4	5	6	7
		2	1	4	2	

3. For high value, high risk items we involve other functions in decision making

1	2	3	4	5	6	7
					5	4

4. We make use of the procurement card for small repetitive purchases (A procurement card or P-Card is issued by banks with the Visa, MasterCard, or American Express brand to a cardholder for purchasing purposes. It is like a credit card issued to the procurement officials or end users)

1	2	3	4	5	6	7
5	2	2				

5. Most of our procurement time is normally spent on placing orders and resolving problems for routine items

1	2	3	4	5	6	7
	1	1	1	3	3	

SECTION E: SUPPLIER PERFORMANCE MEASUREMENT

1. We measure the performance of our suppliers on a regular basis.

1	2	3	4	5	6	7
		2		2	3	2

2. Supplier performance measurement helps us in selecting partners for the long haul

1	2	3	4	5	6	7
		2	3	1	1	2

3. What are the top priorities of your supply chain in order of importance (7 top priority and one least important)

Factor	Rating
Security of material supply	
Adaptive supply chain strategies	
Managing the supply base	
Cost reduction	
Increased speed	
Other: Please specify	

SECTION D: GENERAL

. Highest Educational qualifications

	Matric Certificate	National Diploma	Degree	Honours	Masters
No of employees in Procurement division	41	22	21	15	7

7. Reporting structure

(a) Is your procurement and supply function a stand alone functionary with a procurement executive reporting directly to the CEO?

Yes 5	No 2