

Title

“The constructs of effective supply chain management in the South African IT printer and consumables industry”

A Research Report presented to
The Graduate School of Business Leadership
University of South Africa

By

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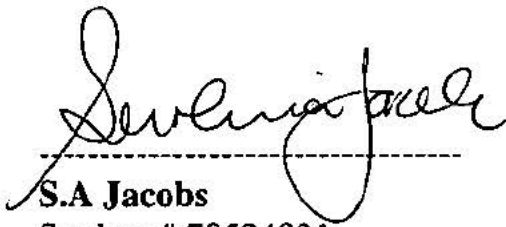
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DECLARATION

I declare that "*The constructs of effective supply chain management in the South African IT printer and consumables industry*" is my own work and that all the sources that I have used or indicated have been acknowledged by means of complete references



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Date

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I would like to thank the following people for their contribution to this project:

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- The various directors and industry leaders who so willingly opened their doors and answered the incessant questions.
- And last but certainly not least to my **Source of Strength**, from who all love flows.

Dedicated to Tatum Jacobs: "Follow your dreams and be the best that YOU can be"

EXECUTIVE SUMMARY

It used to be that the mandate for innovation was confined to the product development departments inside companies. Today, advances in technology and consumer desires have driven demand for highly differentiated products to be developed and delivered faster and more reliable than ever. Supply chain professionals are called upon to create networks and chains that can accommodate new risks, faster product introduction cycles and greater synchronization among internal functions and external partners, all engendered by two of the biggest trends of our times, globalization and mass customization and the IT printer and consumables sector in South Africa need to ensure that their supply chain networks are up for the challenge. We are now in a market driven economy where the consumer is the ultimate channel master and sadly the perception is that the supply chain in the South African IT printer and consumables market still reflects the traditional top down approach to planning and logistics instead of a demand driven approach to serve the end customer better.

This research was undertaken to obtain a clearer understanding of the 1) constructs of winning supply chain management strategies of key players in the IT printer and consumables industry by looking at strategies that have provided companies with a distinctive competitive advantage 2) identifying what the required key competencies, skills and resources are in the supply chain to improve efficiencies and, 3) understanding what the ideal partnership characteristics and attributes are for sustainability and survival in this specific industry.

The research was undertaken in several stages. *Firstly*, a literature review was done to understand what previous scholars and experts view to be important on the chosen topic. Secondary data on the understanding of definitions of supply chain management, trends, best practices, resources and capability requirements and winning partnership profiles were gathered.

Secondly, a questionnaire was compiled based on the key aspects uncovered in the literature review by linking it to the 3 main objectives of the research which was then pre-tested on a sample population of ten (10) to ensure that the questions were clear, well understood and valid. Once piloted and valuable comments were returned, a re-fined version of the questionnaire was produced.

Thirdly, a web link was developed for ease of use, complete anonymity and to ensure that confidentiality was guaranteed in order for the invited participants to answer the refined questionnaire comfortably and in a secure online environment. An invitation was sent to 126 prospective respondents by means of a covering email letter explaining the intent of the survey. (See Annexure A & B) or visit the URL for the list of questions used. (Questionnaire: Annexure C)

<<<http://www.shirlinia.co.za/html/shirliniaq.htm>>>

Fourthly, for additional validity and reliability of the outcome of this research project, fifteen (15) key industry leaders were invited to participate in individual one hour interview sessions, of which 5 declined. They were all asked the same questions in a semi structured format which allowed them to discuss their views on the research topic. The negotiation to access to these key figures proved more challenging than anticipated and in the end only 10 interviews were conducted.

These interviews were recorded and transcripts were produced for later referral. Again anonymity and confidentiality was guaranteed to all who participated. (See sample questions – Annexure D).

The main limitation of this research was the fact that due to time constraints we were unable to interview any end user customers of the product as they could have provided valuable input into their demands. A second limitation was that competitors were not approached for participation in this research project due to fear that they may not want to divulge their supply chain strategies to the researcher because of sensitive competitive advantage information disclosure. In hind sight a plan could have been devised to ask an independent fellow student to approach competitors with the questionnaire to obtain data, but this again could have raised ethical concerns. A definite limitation was the fact that financial efficiency ratio's could not be obtained due to the sensitive competitive nature of the industry and it would have been interesting to compare the efficiency ratio's of all the players to see if there is a correlation between good ratio's and effective strategies.

The results indicated that the industry as a whole is ready to embrace the concept that effective supply chain management strategies can provide organisations with a competitive advantage and sustainability, if implemented successfully. Although the knowledge of skills requirements in the supply chain seems vague, the notion definitely exist that general business and financial acumen is key in the supply chain. Project management and demand planning skills were revealed as crucial for the supply chain in the South African IT printer and consumables sector. The biggest challenge however proved to be that due to various platforms

IT systems used in the channel, integration and true automation remains nigh impossible, unless innovative joint strategies are developed.

The biggest revelation is that true supply chain excellence can only be achieved through strong “perfect fit” partnerships and networks.

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LIST OF ABBREVIATION

SCM Supply Chain Management

I.T Information Technology

R&D Research & Development

JIT Just in Time

SMB Small to Medium Businesses

RBV Resourced Based View

SLA Service Level Agreement

KEYWORDS

Supply Chain Management

Supply Chain Management Strategies

Resources & Capabilities

Competencies & Skills

Partnerships & Alliances

CHAPTER 1

- 1.1 Introduction**
- 1.2 Background and demarcation of study**
 - 1.2.1 Definitions**
 - 1.2.2 Market Value**
 - 1.3.3 Local Pressures**
- 1.3 Problem in context**
- 1.4 Problem Statement**
- 1.5 Research Objectives**

1.1 Introduction

In the 21st century, there have been a few changes in the business environment that have contributed to the development of supply chain networks. First, as an outcome of globalization and proliferation of multi-national companies, joint ventures, strategic alliances and business partnerships were found to be significant success factors, following the earlier "Just-In-Time", "Lean Management" and "Agile Manufacturing" practices. Second, technological changes, particularly the dramatic fall in information communication costs, a paramount component of transaction costs, has led to changes in coordination among the members of the supply chain network (Coase, 1998).

<<http://www.wikipedia.com>>

Nowadays, one of the few outcomes in the constantly changing business world is that organisations can no longer compete solely as individual entities. Increasingly, they must rely on effective supply chains, or networks, to

successfully compete in the global market and networked economy (Baziotopoulos, 2004).

Intense global competition compels and forces organisations to strive to be quicker, more agile and flexible with the adoption of newer technologies. With increased and more advanced customer expectations organisations are constantly challenged to find new ways of adding more value to their customers in order to stay in business. (Saxton B, 2007).

The IT printer and consumables market is no different, while the race for market share continues to urge vendors, distributors and resellers alike to find new ways to serve their customers better, they are constantly looking for unique strategies in the supply chain that will differentiate them against their competitors to maximize their profits in order to have sustainable businesses. In South Africa, the 5 major multinational IT printer and consumables vendors appoint local distributors to act as agents to become, in a very simplistic explanation, stock holding and credit management hubs to address the local reseller channel.

Some of the key competitive dimensions that are important to the resellers in the IT printer and consumables market are stock availability, nationwide delivery, channel credit, top brand product range representation, accessibility to knowledgeable staff and competitive pricing. These are all considered as hygiene factors and to consistently offer all or some of these requirements are just some of the challenges and opportunities that local distributors are constantly contended with. There is also the barrage of continuous changing requirements and process adaptation from the multinational vendors in respect of their forecasting and purchasing functions, stockholding and lead time prescriptions

and rebate structures to drive efficiency behaviour which further fuels the changing nature of business.

The need for a change in thinking in the way sales, purchasing and logistics departments across vendors, distributors and resellers operate exists. This study aims to investigate if one of the strategic ways to address these challenges could be to embrace the concepts of Supply and Demand Chain Management and particularly an investigation into what strategies prove to be effective for distinctive competitive advantage and sustainability, what skills and competencies are required in the IT printer and consumables market's supply chain and what the key ideal attributes of chosen partnerships and alliances should be.

1.2 Background and demarcation of this study

In most organisations sales, procurement, warehousing and logistics are viewed as separate silo business units and the perception is that there is a lack of synergy in the achievement of common goals and objectives in order to satisfy customer requirements. Traditional top down, or push supply chain management strategies, where manufactures force their product lines into the market is being challenged by more informed and educated end users and the proliferation of competitive products. In short in this industry end user buyer strength is predominant and their demands have to be taken seriously to ensure business sustainability.

A brief description below of key definitions aims to elucidate the management and industry terms used as part of this research project.

1.2.1 Definitions

Supply Chain Management

Supply chain management (SCM) is the process of planning, implementing, and controlling the operations of the supply chain with the purpose to satisfy customer requirements as efficiently as possible. Supply chain management spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point-of-origin to point-of-consumption. The term supply chain management was coined by consultant Keith Oliver, of strategy consulting firm Booz Allen Hamilton in 1982. Another definition is that Supply Chain Management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers. In essence, Supply Chain Management integrates supply and demand management within and across companies.

<<<http://www.wikipedia.com>>>

The evolution of Supply Chain Management includes the inter-functional and inter-organisational approach of enhancing systems, processes and strategy with a strong customer focus. Strategic partnerships, relationships and alliances are vital in the search for uniform goals of all organisations involved in and across the supply chain. The emphasis is strongly placed on co-operation and joint strategic planning with the view of mutually sharing both risks and rewards by adding value to the relationships. The aim of partnerships in the supply chain is

to allow each partner to focus on their unique strategic activity in the supply chain network.

Supply chain management is therefore not merely about product flow or deciding distribution networks but ultimately about information, resource and financial flows which can either improve or diminish a companies' return on invested capital.

Wholesaler/Distributor

The Oxford simplified definition is "*an agent who supplies goods to stores and other businesses that sell to consumers.*" <<<http://www.encyclopedia.com>>>

According to <<http://www.investorwords.com>> a wholesaler is a distributor or middleman who seller mainly to retailers and institutions rather than consumers. In the context of this study a wholesaler or distributor can be described as the local agent that has been appointed by a global vendor/manufacturer to import printers and consumables in bulk, break the bulk and resell it in single units to a local reseller base who then sells it on to end customers.

Vendor

The term vendor in the context of the IT printer and consumables industry is used for the multinational manufacturing companies who patents, designs and/or produces product but does not necessarily have local (South African) stock holding facilities. They often make use of the services of wholesalers/distributors to push their products through the channel onto resellers, retailers and finally to the end customers. The primary role of these printer vendors in South Africa is to market their brands at all levels in the channel.

Reseller/Dealer/VAR's/Retailers

A reseller, retailer, VAR or dealer is the final tier supplier of printers and consumables to the end customer. They procure products from the wholesaler/distributor at preferential pricing to enable the resale of goods. There are many types of resellers, however 3 types in the printer and consumables market are discussed below:

- Value-add solution providers who offers end to end printing solutions, maintenance and services to customers; these are sometimes called VAR's which in for example the computer and other industries, a value-added reseller is a company that takes an existing product, adds its own "value" usually in the form of a specific application for the product (for example, a special computer application), and resells it as a new product or "package".
<<<http://www.ask.com>>>
- Retailers who focuses on supplying home consumers and small businesses and;
- General dealers, who provides the product only at affordable pricing with no additional service offering.

End Customer

For the purposes of this study, end customers will include corporate or enterprise corporations, small to medium size enterprises, public sector and home end user consumers.

Cost Optimization

By combining workforce optimization (people productivity), processes and technology one can achieve business cost optimization in order to improve profitability. <<<http://www.ask.com>>>

Cost Innovation

The process of making improvements by introducing something new while improving the cost of doing it. <<<http://www.encyclopedia.com>>>

1.2.2. Market Value

The combined estimated value of the South African IT Printer and consumables market is set to be at approximately R6 billion per annum, according the BMI-T market research undertaken in 2006. Despite a significant contribution to the economy, research in this sector mainly focuses on the market share value of major printer vendor brands and not much research has been done to determine effective supply chain management strategies, systems, structures, skills, partnerships and processes.

1.2.3. Local Pressures

The current South African road, air and sea freight infrastructure, the 2010 World cup which will cause an influx of tourists and the fact that we import more goods than we export will all have an effect and place strain on the supply chain in every industry in South Africa. Fast moving consumer goods like printer cartridges which are consumed on a daily basis by large corporate, government and end user customers all depend on this infrastructure and thought needs to be given to how all of the infrastructure constraints will affect meeting customer demands while still aiming at reducing the cost of doing business without affecting efficiencies. The South African economy has seen its fair share of

extreme volatility in the rate of exchange, rising oil prices, rising interest and inflation rates, and an increase in wage demands over the past 12 to 18 months. The aforementioned is placing extreme pressures on the supply side of every business from manufacturer to the end customer as the cost of doing business is constantly increasing and eventually this is passed on in the chain. For these reasons some of the elements of this research project are aimed at focusing on finding ways that could highlight strategies which could assist in establishing sustainable business practices, eradicating duplication of costs in the supply chain and ultimately maximizing profits in an effort to increase shareholder value across the channel.

1.3 The Problem in Context

Increased proliferation of vendor printer and consumables product offerings, faster response demand requirements from end user customers and the ever decreasing downward margin spiral of these commodity items have necessitated the desire to find ways of improving efficiencies in and across the supply chain of many organisations in the IT printer and consumables industry. The aim of this report was to analyze how a few selected printer vendors, resellers and distributors address the overall effects of efficient supply chain management strategies, skills and resources, partnerships and processes in the South African IT printer and consumables market.

Printer manufacturers like Hewlett Packard, Lexmark, Canon, Epson and Brother currently work through local agents or wholesalers in South Africa who warehouses and distributes their products due to the fact that the aforementioned are predominantly sales and marketing operations in this country. This makes distribution or wholesale a vital choice of reach for these multinationals and

allows wholesale distribution in the IT printer and consumables sector to still be a viable and attractive business opportunity even within the constraints mentioned before. Combined these distributors deal with approximately between 4000 to 6000 or more registered resellers who in turn services hundreds and thousands of corporate, the public sector or end customers directly.

The complexity involved in importing printers and consumables, to reach the final end customers, without duplicating costs across the supply chain has for a long time proved to be a challenge for many South African IT printer vendors, distributors and resellers alike. This is mainly attributed to the distance and long supply chain networks from the vendors manufacturing hubs to the local and regional dispersion of customers within South Africa. These geographical challenges, amongst other things, compounds the feast and famine stocking levels in the industry which is caused by the perceived lack of demand forecasting capabilities in the channel due to the lack of systems integration between the resellers and distributors and the perceived lack of a deeper understanding of what the end customers require by the reseller, who is and should be, the closest link in the knowledge of the demand in the supply chain.

It is for this reason that many distributors and resellers tie up unnecessary working capital in stock due to lack of strategic planning and lack of optimal usage of resources and partnerships in the supply chain.

The ostensible lack of clearly defined supply chain management strategies in the IT printer and consumables industry could possibly be the cause of the lack of the ability to identify key partnerships and alliances needed to be effective.

The notion of which vital skills and competencies required in the supply chain is currently also evasive which in turn leads to the lack of proper demand planning capabilities that ultimately leads to the lack of customer retention strategies.

Poor stock holding due to top down vendor/manufacture rebate incentive programmes and lack of true knowledge of customer requirements, vendor/manufacture part number proliferation, plummeting margins and diminishing service delivery to reseller customers and their end customers in a highly competitive printer and consumables market leads to disloyalty and ultimately loss of business. It is for this reason that an effective way to manage the supply chain in our industry needs to be found.

The erratic bull whip effect in stock holding (too much or too little) and the negative effects of the lack of efficient supply chain management processes in the fast moving printer and consumables arena is a cause for concern. This feast to famine stock scenario where distributors and resellers either have too much or too little stock to service their end customers is becoming an everyday occurrence. The problem is then further compounded by the fact that the stock is then touched too many times in the supply chain which increases the cost of doing business for the reseller customers, their end customers and for the wholesalers/distributors.

Some of the key individual, isolated and sometimes disconnected supply chain processes that have been looked at in the past as stated by Lambert, 2004 include customer service management, procurement, physical distribution, outsourcing/partnerships and performance measurement. The planning involved to import goods in a fast moving consumer environment can become vexing with vendor/manufacture forecasting and ordering process requirements, customer

demand planning issues and capital availability are just some of the elements that could either positively or negatively affect the running of an efficient supply chain. This is besides the actual physical warehouse space needed as well as logistics in and outflow management that needs constant consideration. Local distributors are also faced with choices of centralized or decentralized warehousing hubs and the cost involved serving customers based on these choices.

The added challenge of forex management is an art that can either maximize profitability if managed properly or can diminish profits if not managed correctly and can be the final straw in winning or losing a deal or ultimately provide sustainability. Could all the above operational symptoms be a result of deeper issues or are these merely hygiene factors that are part of the day to day running of these business? Below are some initial questions that will need answers in order to find a way forward:-

Supply Chain Management Strategy

Do the vendors, distributors and resellers in this industry have documented supply chain management strategies? Is there a need for an organisation to document its supply chain management strategy? Should the supply chain management strategy reflect a companies "go to market" strategy?

What will the SCM strategy include/exclude? What are the aims and objectives of the SCM strategy? Will there be funding to implement ideas? When documented, will it align with the overall company strategy?

Supply Chain Management Skills and Competencies

What specific skills are required for good SCM personnel? What specific knowledge is needed for goods SCM personnel? What specific attributes would good SCM personnel have to display?

Supply Chain Management Partnerships and Alliances

What are the attributes of an ideal partnership? Are current partnerships adding value? Will the partnership improve profitability for both organisations?

Will the partnership improve customer service levels and are they measured?

Which services can be outsourced? Which services are critical to keep in-house?

Table 1.1: Key SCM Processes and Current Industry Issues – Adapted from Lambert and Cooper, 2000 <<<http://www.wikipedia.org>>>

Key Process	Current Issues
<p>Customer Service Management</p>	<p>Customer service management should provide the source of customer information. It also should provide the customer with real-time information on promising dates and product availability through interfaces with the company's supply and distribution operations.</p> <p><u>Application to our industry</u></p> <p>The problem in the IT printer and consumables market arises when organisations do not have sight of the customer demands and lack the information technology tools that enable them to analyse data and have an insight on customer demand.</p>
<p>Procurement</p>	<p>Strategic plans are supposed to be developed with suppliers to support the manufacturing flow management process. In organisations where operations extend globally, sourcing should be managed on a global basis. The desired outcome is a win-win relationship, where both parties benefit, and reduction times in</p>

	<p>the supply cycle achieved. Also, the purchasing function should develop rapid communication systems, such as electronic data interchange (EDI) and Internet linkages to transfer possible requirements more rapidly. This requires performing resource planning, supply sourcing, negotiation, order placement, inbound transportation, storage and handling. Also, includes the responsibility to coordinate with suppliers in scheduling, supply continuity, hedging, and research to new sources or programmes.</p> <p><u>Application to our industry</u></p> <p>The problem arises if current procurement processes are not optimized and a demand planning function is not even a thought in many organisations. IT systems integration across the supply chain is lacking due to silo based approaches to supply chain management.</p>
<p>Physical Distribution</p>	<p>This concerns movement of a finished product/service to customers. In physical distribution, the customer is the final destination of a marketing channel, and the availability of the product/service is a vital part of each channel participant's marketing effort. It is also through the physical distribution process that the time and space of customer service become an integral part of marketing, thus it links a marketing channel with its customers (e.g. links manufacturers, wholesalers, retailers).</p> <p><u>Application to our industry</u></p> <p>Tighter supply contracts need to be looked at with outsource partnerships or maybe even question if there is a need to use outsource partners at all? Duplication of infrastructure and resources is another cause for concern in the industry.</p>
<p>Outsourcing/ Partnerships</p>	<p>This is not just outsourcing the procurement of supplies, but also outsourcing of services that traditionally have been provided in-house. The logic of this trend is that the company will increasingly focus on those activities in the value chain where it has a distinctive advantage and everything else it will outsource. This movement has been particularly evident in logistics where the provision of transport, warehousing and inventory control is</p>

	<p>increasingly subcontracted to specialists or logistics partners. Also, to manage and control this network of partners and suppliers requires a blend of both central and local involvement. Hence, strategic decisions need to be taken centrally with the monitoring and control of supplier performance and day-to-day liaison with logistics partners being best managed at a local level.</p> <p><u>Application to our industry</u></p> <p>In certain parts of the distribution network in our channel simple operational executions such as document management by logistics service providers for instance can cause major frustration at customers and measurement of partner performance is still perceived to not be top of mind in the IT printer and consumables industry</p>
<p>Performance Measurement</p>	<p>Strong relationship from the largest arcs of supplier and customer integration to market share and profitability. By taking advantage of supplier capabilities and emphasizing a long-term supply chain perspective in customer relationships can be both correlated with firm performance. As logistics competency becomes a more critical factor in creating and maintaining competitive advantage, logistics measurement becomes increasingly important because the difference between profitable and unprofitable operations becomes narrower. Organisations engaging in comprehensive performance measurement realized improvements in overall productivity. Internal measures are generally collected and analyzed by companies include cost optimization, customer service, productivity measures, asset measurement and quality.</p> <p><u>Application to our industry</u></p> <p>Currently no or little measurement occurs within the channel and ways need to be found to correct this.</p>

1.4 Problem Statement

An Investigation into the constructs of effective supply chain management, by analyzing strategies that can provide distinctive differentiation, identifying key skills and competencies required for effective implementation of these strategies and seeking the criteria and attributes of successful partnerships and alliances that can offer profitability and sustainability in the South African I.T. printer and consumables industry.

1.5 Research Objectives

The primary objective of this research is to investigate the constructs of effective supply chain management strategies in the South African IT printer and consumables industry that can provide organisations with sustainability and distinctive competitive advantage.

The two secondary objectives that flow from the above is:

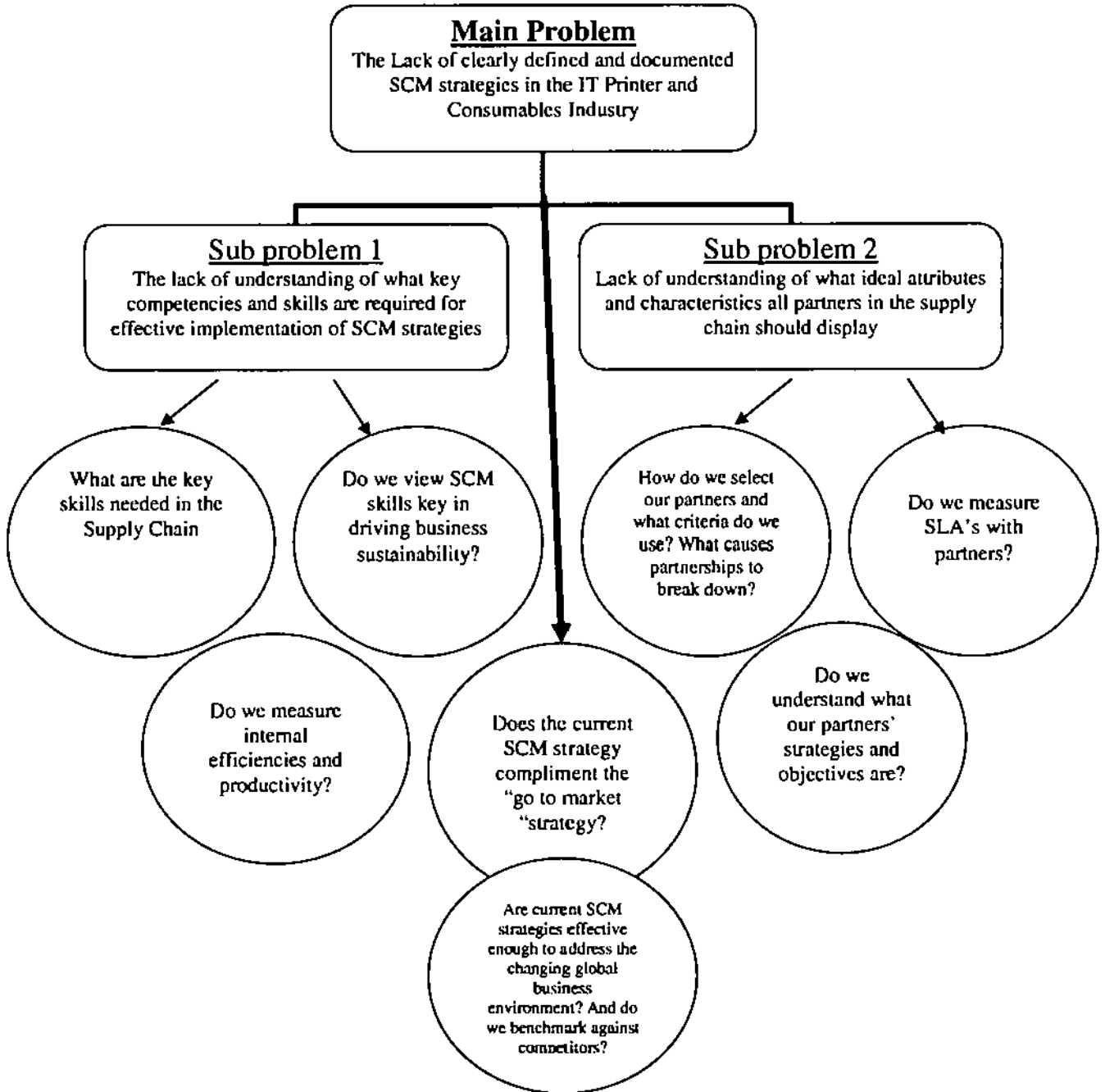
- 1) To identify the key skills and competencies needed to implement effective supply chain management strategies and;

- 2) To investigate the attributes of ideal partnerships in order to find ways of collaborating more effectively with vendors, resellers, service providers and customers in order to optimize cost and enhance profitability and improve sustainability for all in the supply chain.

The aim of the above objectives is to embark on a journey of discovery that would encourage the S.A. IT printer and consumables industry to improve its current supply chain management strategies, structures, skills and partnerships.

The relevance tree, adapted from Leedy and Ormrod, 2005: 72 used below depict the problem statement broken down into understandable and more manageable sections.

Fig 1.1 The Relevance Tree adapted from Leedy and Ormrod, Practical Research, p72



Chapter 2

- 2.1 Problem Analysis**
- 2.2 Iceberg Analogy**
- 2.3 The Strategy Process**
- 2.4 Environmental Analysis**
- 2.5 Porters' Five Forces Model**
- 2.6 Assessing Stakeholder expectations**
- 2.7 Resources & Capabilities Investigation**
- 2.8 Alliance & Partnerships Building & Development**
- 2.9 Summary**

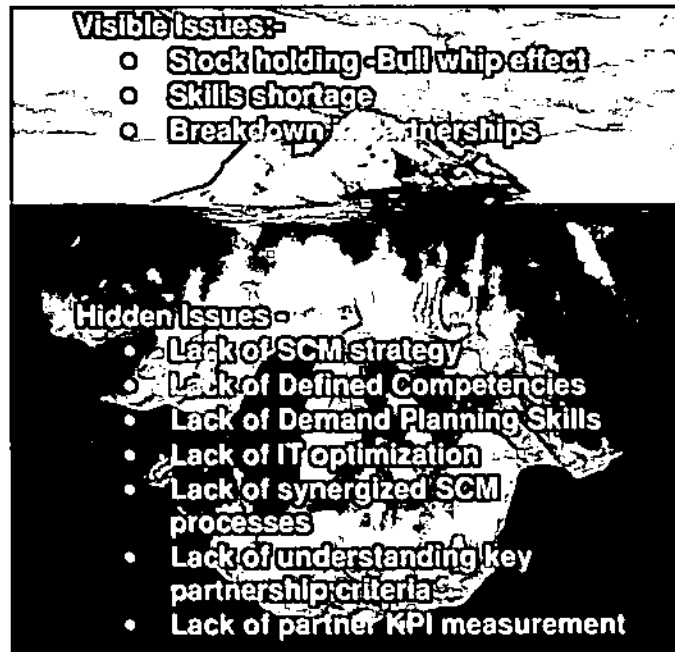
2.1 Problem Analysis

The aim of the problem analysis section of the research is to illuminate the levels of complexity of the problem statement. **Strategies, Skills and Partnerships** are broad topics and in the context of this research an analysis of a deeper understanding of the specific supply chain challenges in the IT printer and consumables industry need to be explored with the use of management models.

2.2 The Iceberg Analogy

The iceberg can be used as an analogy on the layers of challenges underlying the problem statement. The use of the iceberg as an analogy, (Fig. 2.1) page 32, of the issues being faced in the industry is relevant as the levels of complexity of the challenges faced can not merely be addressed by undertaking superficial exploration and investigation. The visible effects of operational inefficiencies are direct consequences resultant from deeper strategic issues which we aim to highlight. Organisations can not merely aim to fix operational issues without treating to root causes or symptoms from which these issues derive.

Fig 2.1 Iceberg Analogy of Issues in the Supply chain (MS PowerPoint)

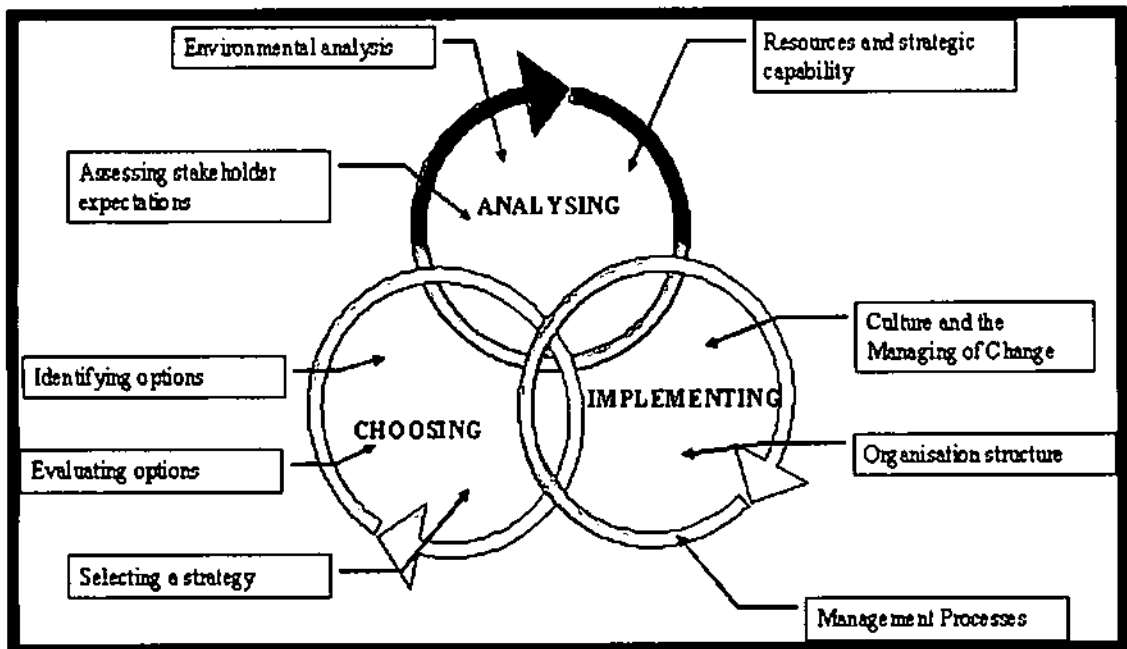


Although the problems at hand may seem as if it relates to functional strategy because of the operational slant that it takes, an argument can be made that these seemingly operational issues can definitely be viewed as the symptoms of deeper strategic issues. To find a solution in order to understand the underlying causes of these operational issues which can hopefully produce effective supply chain management strategies and processes that will and can enable organisations to have distinctive competitive advantage in the market place is of utmost importance. The need for organisations in the IT printer and consumables industry to develop solid supply chain management strategies exists and in the writing below, with the use of specific management models, attempts will be made to analyse this need in greater detail to obtain clarity.

2.3 The Strategy Process

Although the below strategy process framework is used to assist organisations in determining company strategies, for the purpose of this research an attempt will be made to adapt the **Analysing** and some elements of the **Choosing** and **Implementation** phases of the model, (Fig 2.2), to determine the problems experienced in the supply of printers and consumables in the industry. In business strategy the aim of the model in the **Analysing** part is to examine the external environment in which an organisation operates, it is also used to investigate the resources and capabilities of that organisation or industry and then assessing what the stakeholders' expectations are.

Fig 2.2 The strategy process adapted from (B820 course notes) (Johnson & Scholes, 1993, Pettigrew, 1998)



For the purposes of this study and based on the description of Fig. 2.2 (page 33) the problem has been broken down into 3 stages, namely an

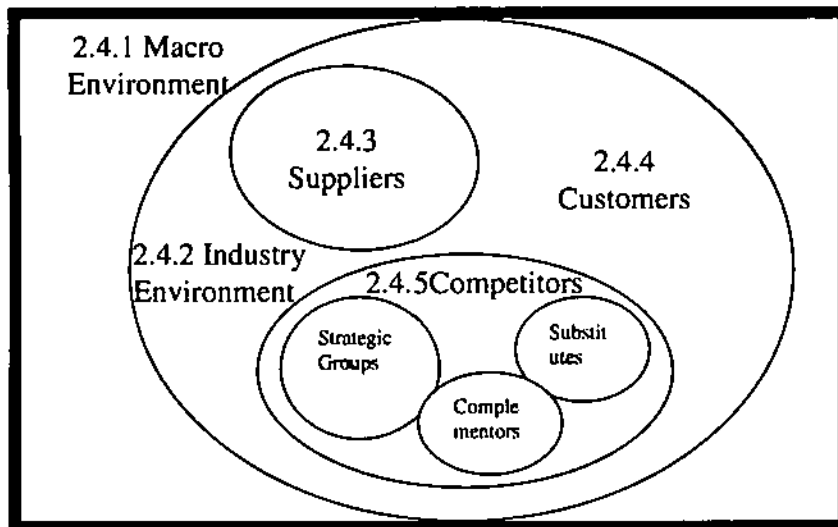
- **Environmental Analysis**
- **A Stakeholder Assessment**
- **A Resource and Capabilities Investigation**

These above will be used to identify the key external, internal and stakeholder challenges faced in the industry.

2.4 Environmental Analysis

The use of the Environmental Analysis model, (Fig 2.3), below aims to highlight key elements of an environmental analysis that need to be taken into account for clarity of the investigation. Short discussions of the macro environment, the industry environment, suppliers, customers and competitors will be entered into in an attempt to understand the problems faced in the S.A. IT printer and consumables industry.

Fig 2.3 Environmental Analysis (B820 Strategy Course Material, Unit 2: 97)



2.4.1. Macro Environment

Pressures in the economy, currency volatility, economic and governmental policies, B.E.E legislation, environmental responsibility and legislation and the threat of global competitors entering our market are just some of the issues that affect our industry. Adherence to black economic empowerment and alignment is now a fact of life in all businesses in South Africa and although the IT industry lagged in the adoption of legislated criteria, a concerted effort is constantly being made to address inequalities specifically in skills development. Cartridges causes major landfill issues and environmental awareness and responsibility to eradicate these items from the S.A. market is now becoming a key focus point for many corporate customers and vendors, distributors and resellers alike have to address these issues more fervently by coming up with reverse logistics solutions.

2.4.2. Industry Environment

The IT printer and consumables industry has its fair share of controversy, competition and challenges. Distribution or wholesale in this country is an oligopoly with only a few players, while the reseller channel trades in a perfect competitive environment. Traditional IT printer vendors are in a race, clamoring for market share. The convergence of traditional office automation and copier companies into the desktop and network printing environment is fueling the intense competitive landscape even further. The constant need for the local businesses to grow and attract sufficient credit for this growth adds to the sustainability challenge. The best printer “go-to-market” strategy per market segment is important to distributors who sell the consumables or supplies for these printers, as they are purely servicing an after market installed base and their survival depends on the installed base of printers. This can be likened unto the petroleum industry, where the more cars are sold, and the more petrol will be

required. In this industry it is a case of the more printers are sold into the market, the more printing will occur and the more consumables or supplies will be required. The challenge however, is that the supply chain in the IT printer and consumables industry spans continents and the flow of product is extremely long which makes forward planning vital.

2.4.3. Suppliers

Due to the fact that the product this industry provides is not manufactured or assembled in any way by the local distributors or resellers and they are totally reliant on the Vendor/manufactures to manage production times and flow of the product to the channel once produced in itself presents challenges as most the Vendors have outsourced contracts with raw material providers that in essence can let them down as well which can sometimes cause supply constraints in the industry and in turn creates a market for Substitute products (compatibles, re-fillers). Vendors are now demanding better accurate forecasting models from the channel in order to manufacture the products just in time, taking to account the lead times required for shipments to reach South Africa via sea freight. These forecasting models aim to drive logistical efficiencies and in effect only means that sales are pushed forward because of the vendor ordering cycle requirements, which can lead to over or under stocking in the channel.

2.4.4. Customers

The customers, meaning the resellers, have their own challenges in that they do not have sophisticated I.T systems and software capabilities to obtain forecasts from their end customers on their stocking demands and some of them do not even have the ability to get instant reports on their sales history, to allow the wholesalers or distributors access to determine their sell out history patterns by

product code, in order to get some view of what they are constantly selling. This type of information is vital for planning distributors stock holding requirements.

2.4.5. Competitors

To maintain a distinctive competitive advantage in this industry over a long period of time remains challenging. The competitive landscape is discussed in 3 focused areas.

2.4.5.1 Strategic Groups

Perceived alliances between key printer vendors, specific distributors and resellers challenges the channel to constantly to stay well informed of the supply chain management or value chain actions and developments in the industry. This could prove vital in formulating tactical supply chain management strategies to counter any competitive actions.

2.4.5.2 Substitutes

Substitution can take on various forms. The end customers may opt to replace traditional or multifunction branded printers with copiers, they could deploy electronic document management strategies in order to reduce printing over a period of time or they could start using compatibles or refills instead of genuine ink and toner cartridges in their printer installed base.

2.4.5.3 Complimentors

The traditional “box drop” printer selling methodology is making way for a more complex and involved sales motion where complimentary product offering and tools like print auditing and print fleet management control is the order of the day. This in turn leads to a change in skills requirements in all sectors of the value chain. Value added resellers are offering the complete management of corporate customers printing environments and this is changing the rules of

engagement for the traditional resellers who only focus on selling the most amounts of units at the best possible price.

2.5 Porter's Five Forces Model Used to further analyze the competitive landscape.

In the **Porters Five Forces** model Michael Porter, 1980, (MBA strategy course notes Unit 2: 62) refers to five forces that are key to evaluate in a competitive environment. A discussion on two of the five forces, the **Buyer and Supplier Powers**, will be used to elaborate and clarify the problem statement further.

2.5.1. Supplier Power

Prominent printer and copier brands own and control the market by their sheer brand power. They own the product patents and have the ability to appoint new distributors or resellers and have influence over the margin in the channel. They can also exert their power by withholding or granting discounts to further entrench their products in order to gain market share.

2.5.2 Buyer Power

In the case of this research there are two distinct groups of buyers who can exert their power, one being the resellers who purchase from the distributors and the other is the corporate or end customers who purchase from the resellers. Larger regional resellers who hold substantial spending power and financial credit availability are spoilt for choice in that they play distributors up against each other in order to procure products more economically. This leads to distributors clamoring for the attention of these large players in order to secure the business by offering better prices or value added services. An immediate implication to disloyal reseller customers to the distributors is the direct impact it has on forecasting ability, as the resellers often tend to rotate their spend which makes

planning nigh impossible. Larger end customers on the other hand realize their spending power and use this to force resellers to offer maximum service at the most economical price offering.

2.6 Assessing Key Stakeholder Expectations

To understand the problem in context a clearer view of the expectations of the key stakeholders is depicted in table 2.1 below.

Table 2.1 Key Stakeholder Assessment in the S.A. IT printer and consumables sector

Key Stakeholders	Expectations	Link to overarching problem
Customers/Resellers	To get what they ordered on time for the right price to be able to deliver to their end customers	Inability to provide the channel with forecasts of what they will need to purchase due to lack of visibility from their end customers
Customers/Corporate/ Government	To get what they have ordered on time at the negotiated price to be able to ensure that their users remain productive to service their customers	Erratic procurement processes, too many suppliers and lack of control on IT printer and consumables spend, which makes it difficult for them to forecast
Suppliers/Vendors	The assurance that distributors will carry sufficient stock and represent their brands fairly in order for users of the products to be able to buy when they need it.	Lack of systems integration and hence the reliance on very manual processing Lack of understanding of what the channel need for

	Compliance to their order cycles.	successful SCM implementation
Service Providers	To be paid on time for services rendered	The lack of measurement tools to determine if they are performing within service level agreement terms.
Staff	<p>Sales To have stock available at the right time and for the right price in order to sell at a profitable margin.</p> <p>Procurement To be told by sales people what deals are coming down the line so that they can plan forward</p>	<p>Lack of systems and tools to give forecasting to buyers in a uniform standard</p> <p>Even if forecasts are given, however manual, the ability to then link this into the ordering system to be able to work on their just enough procurement processes.</p>

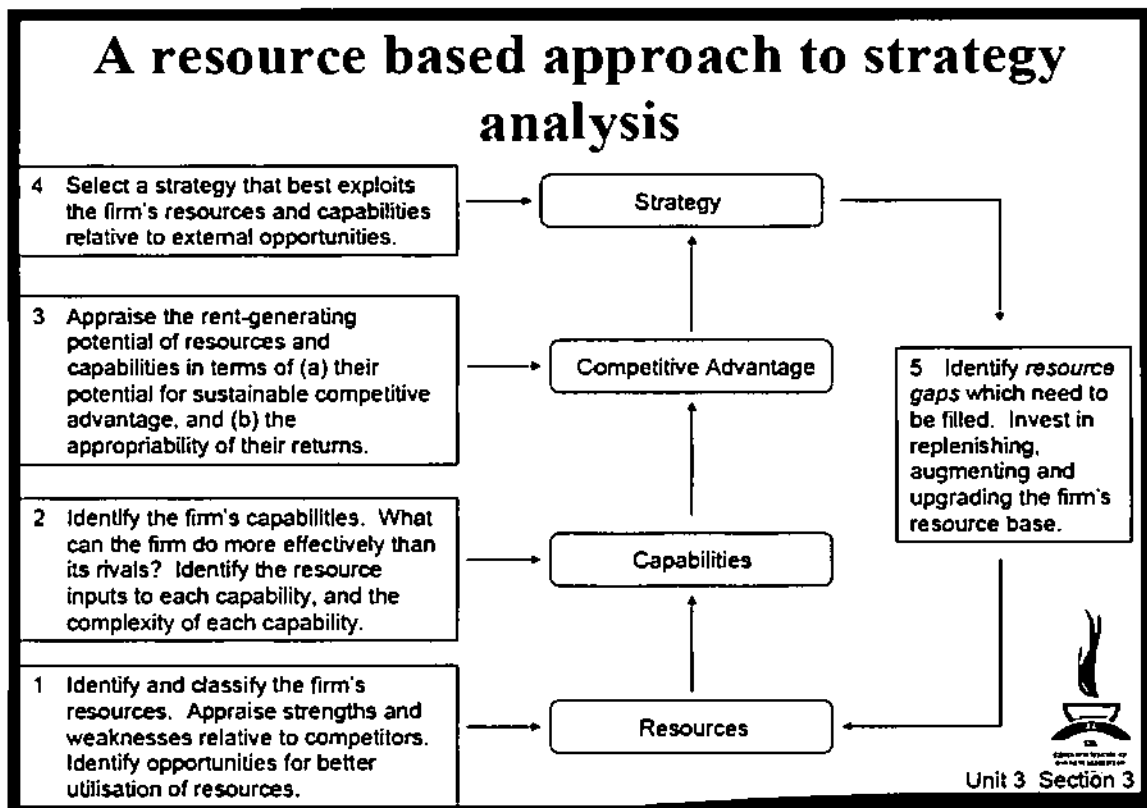
2.7 Resource & Capability Investigation

The resources and capabilities an organization possesses will determine its ability to:

1. serve different customer segments
2. create new ways of competing

In the Strategy units of the MBA programme, Unit 3, chapter 1 discusses how the resource based view of strategy can provide organisations with a competitive advantage. An organization’s success is linked to the organization’s ability to acquire the resources and develop capabilities required for success at any one point in time; this can be true for an entire industry as well. As stated in the MBA course material, (Unit 3:9) “At the core of the RBV is the assumption that the critical difference between organisations, irrespective of whether they are in the same industry or sector, is the bundle of assets they possess and the way they make use of these assets.”

Figure 2.4. A framework for analyzing resources and capabilities (B820 course notes, Unit 3:35), Grant, 2002



Based on figure 2.4, the problem can further be analyzed by undertaking an investigation into the industry capabilities and resources. A brief discussion to follow in the tables below.

2.7.1 Capabilities – Negatives

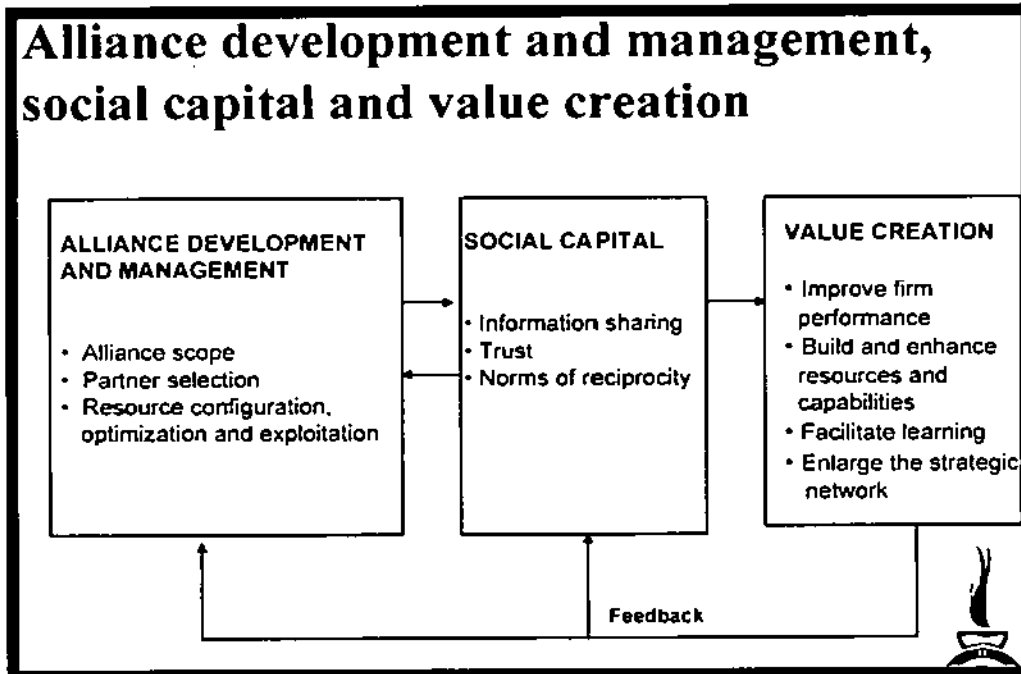
Architecture	The finance, sales, procurement, warehouse and logistics staff in the channel is not currently united with a common goal of optimizing the supply chain. Finance wants to keep as little stock as possible in order not to tie up working capital. Sales wants excess stock so that they don't run out when they need. Procurement staffs are incentivised to keep their stock days low. Warehouse and logistics staff does not understand current service level agreements signed with customers and there is no goal congruency.
Reputation	Current suppliers and inter-firm collaborative arrangements are not built on relationships with the organisation's customers. Each participant in the supply chain still only concerns themselves with their needs and requirements.
Innovation	The reliability of speed of service can be a source of competitive advantage if it provides means for organisations to compete more efficiently offering a service which is more valuable to the customer but unfortunately this is not currently the case in many companies in the supply chain.

2.7.2 Resources – Negatives

<p>Resources: Tangible, intangible, human (Classifying Resources, Grant, 2002)</p> <p>Must be rare, imperfectly imitable and non Substitutable, according to Barney, 1991</p>	
<p>Tangible -</p>	<p>Financial and Physical – The industry has the financial and physical resources but they are not capitalizing on it and using it as efficiently as we can. Duplication of infrastructure can be named as one of the most tangible assets that can still be considered for improvement in the channel.</p>
<p>Intangible -</p>	<p>Technology – we do not currently have the appropriate supply chain management IT tools that can provide synergy across all players in the supply chain.</p>
<p>Human</p>	<p>Skills, know how, capacity for supply chain management innovation is lacking in many organisations.</p>

2.8 Alliance & Partnership Building and Development

Figure 2.5 (B820 course notes: Course Reader: 57)



Current Industry Short Comings

2.8.1. Alliance Development and Management

Perceived trust issues are causing hindrances to forming alliances with suppliers, service providers and customers. The notion that resellers do not want to share information with vendors and distributors still exists due to fear that they may want to steal their customers. From a service provider point of view, the industry lacks benchmarking best practices when it comes to selecting partners. A need exists for the analysis of the resources and capabilities required for successful SCM strategy.

2.8.2. Social Capital

Lack of information sharing up and down and across the supply chain is leading to ineffective service delivery. The lack of trust both towards and from vendors, service providers and customers is deterring synergy and possible solutions to be found to address the channel better. Without trust and transparency any attempts for collaboration will be stunted. This in return leads to the lack of reciprocity.

2.8.3. Value Creation

The lack of performance measurement of service providers and suppliers leads to lack of efficient service delivery to customers. The lack of identified resources and capabilities required makes it difficult to build and enhance it. The lack of skills development in the SCM field gives rise to the inability to facilitate learning in many organisations. The inward, operation focus, is currently stifling the ability to enlarge the strategic network.

The models used above has aimed to assist in identifying the deeper underlying issues to the stated problem and will assist in further developing research design and questions to produce the desired results.

The perceived key issues:

The perceived lack of clear and documented supply chain management strategies in the industry seem to exist. There is a need for key individuals in all organisations across the supply chain to drive and bring overall synergy in the channel. There is an apparent lack of knowledge of what the appropriate skills/competencies requirements should be in the channel. The evident lack of demand planning capabilities and resources is a cause for concern. The need to

look at the lack of customer loyalty due to inefficient service delivery is also alleged.

The overall objective of the research is to:

- Discover and document sound SCM strategies
- Identify, improve, import or outsource skills required
- Identify how to improve demand planning resources and capabilities through the use of information technology
- Identify key service issues and find ways to improve service delivery and customer loyalty by developing alliance strategies in the SCM network.

2.9 Summary

This chapter has assisted in identifying the main strategic issues that needs to be researched. The perceived lack of clearly defined Supply Chain Management Strategies in this industry seems to lead to untold implications which include a lack of key competencies and skills planning, a lack of demand planning capabilities and finally a lack of customer loyalty because they are often let down.

The aim is to ultimately identify strategies in the industry in conjunction with vendors and resellers which can improve service delivery to the final end customers. This can only be done by developing skills needed for an efficient supply chain and by recommending deeper binding collaboration with suppliers and service providers.

CHAPTER 3

3. Literature Review

3.1 Introduction

3.2 Competitive Supply Chain Strategies

3.3 Resources & Capabilities

3.4 Information Technology

3.5 Competencies & Skills

3.6 Partnerships & Alliances

3.7 Summary

3.1 Introduction

The literature review is broken down into the 3 major themes, **competitive supply chain strategies, resources, skills and capabilities and partnerships and alliances.** The idea is not to implement and apply whatever others have proposed verbatim, but to learn from the companies that have been researched and to find what mistakes should be avoided and apply only appropriate aspects to the IT printer and consumables industry as we are exceedingly aware of the fact that the hypothesis proposed by the gurus could be out of date by now. What was successful in certain companies a few years ago may no longer be relevant for us simply because market circumstances have not remained static. The literature review that follows is discussed under each of the research problem objectives. The hypothesis formed from the literature review will be addressed by the positivistic part of the empirical research that will be undertaken.

3.2 Competitive Supply Chain Strategies

Slone, (2004), ⁽⁴⁾ argues that key to effective supply chain management is first and foremost the need to devise a sound SCM strategy that fits into the overall company's corporate strategy. The major components, he asserts, should be taking into account and understanding customer needs, trade partner priorities, benchmarking the competition and having a plan, solid and futuristic enough to build for the future.

Companies have to determine where in the supply chain they want to compete from a business strategy level to appropriate value for themselves, and once this is determined the question of how they will compete needs to be posed. Superior supply chain management strategies can cut costs, drive growth and move the corporation forward according to Manrodt, Gibson & Rutner, (2005), ⁽⁵⁾. We would like to test if the connection between SCM and Corporate strategy has been made in our industry yet, by undertaking this research. Manrodt et al, (2005) is of the opinion that supply chain management can help the organisation get to its new desired state. If this is true another question in the research could be why so many companies in our industry seem to not be embracing SCM strategies or if they are embracing it what can we learn from the processes that they have employed? A counter argument to Manrodt's view of cutting costs is the Triple A supply chain strategy as advocated by Lee, (2004) ⁽⁶⁾, who argues that in a time when most supply chain strategies opt for high speed and low cost, companies who have had excellent success also had **agility** (respond quickly to sudden supply and demand changes), **adaptability** (they evolve as STEEP forces change) and **alignment** (they align all the interest of their partners with their own). This means that these companies adapt to social, technological, environmental, economical and political changes by aligning their supply chain strategies accordingly.

The deliberately constructed purpose statement of this research is stated as finding an "effective" supply chain and not an "efficient" one, because although efficient supply

chains have high speed and low cost, they can not always respond to unexpected changes in demand or supply according to Lee, (2004). Efficient supply chains often become uncompetitive because they don't adapt to changes in the structures of the market. An example to use would be that of one of our major competitors who have embarked on efficiency improvements and are still unable to deliver to their customers on time due to IT system challenges. According to Lee,(2004), (6). although technology is a hygiene factor in the supply chain, what's needed more are fresh attitudes and a new culture to get their supply chains to delivery triple A performance.

Fawcett and Magnan, (2005), (7) put forward the idea that even if a solid supply chain strategy exist, supply chain leaders still need to do supply chain scanning to determine the forces that affect their supply chain, they site the ten key forces that they suggest managers need to scan constantly as *competition, globalisation, customer expectation, global capacity, merger mania, role shifting, technology, time compression, virtual integration and Wall street*. The basic premise of their argument is that agility and adaptability is imperative in order to stay ahead of the game and they encourage companies to constantly innovate and stay ahead of supply chain management challenges. Their advice includes, leveraging relationships to take advantage of economies of scale, becoming indispensable by helping customers succeed, taking cost out of the supply chain and establishing rigorous partner selection criteria. This brings to the fore the need for organisations to treat supply chain management different from the olden days of logistics and distribution methodologies and answers need to found on how to optimally engage all key players in the SCM strategy formulation in order to perpetuate benefit for all parties concerned. Building of customer and supplier relationships, implementing information and communication technology, re-engineering material flows and creating a synergized culture among supply chain partners are some

of the key success factors of supply chain management as argued by Tummala, (2006) (23).

The below table gives a brief overview of a four-step strategic planning process for supply chain management as recommended by Power, (2005), (22)

Table 3.1 - 4 Step Strategic Planning process by Power, D (2005)

Network optimization	Design the least cost network focusing on customer demand
Network simulation	Test alternative models to predict supply chain behaviour.
Policy optimization	Develop best operating rules (e.g. how much inventory to hold each product line)
Design for robustness	Anticipate unforeseen circumstances and possibilities.

Kim, (2006), (26) argues that a firm seeking and pursuing efficient and effective SCM practices need to focus on Supply Chain Integration and that their strategies should include how to effectively integrate with internal cross functional departments and external suppliers, service providers and customers alike. In his research he asserts that in order for efficient supply chain management practices to be of value, internal processes need to be addressed first. This assertion is further confirmed by Koh et al, (2006), (27), who states that competition today is forcing companies to integrate tightly with their suppliers and customers, in order to reduce the time available to flex the supply chain. They argue that before any company can be linked effectively into an agile supply chain, their own internal process must be re-engineered.

According to Varma, 2006, (30), the major issues related to SCM implementation are in the areas of logistics, outsourcing/partnerships and the environment. Apart from these issues the prerequisite for implementation is the formulation of strategy first.

Saxton, (2007) (1) states that the crucial starting point is that **tactics must follow strategy** in order to re-engineer one's supply chain. With this in mind we will now focus on what is needed to implement appropriate SCM strategies. The need for strategy formulation leads to the first hypotheses:

H1: There is a link between SCM strategy and the company's main corporate strategy which is not treated separately. This strategy is developed around customer demand and internal process re-engineering is first needed before IT systems integration can take place across the supply chain network.

3.3 Resources and Capabilities

Spekman et al, 2002, (20) asserts that learning has a positive impact on performance measures relating to end-customer satisfaction and a more market focused supply chain. The key resources and capabilities that will be under review as part of this research includes; information technology and the key skills needed for supply chain management and staff. They argue that a company's core competencies resides in the accumulated intellectual capital of the company, and is the sum of its technologies, skills, experience and management processes. What obviously is worthy of mention is the fact that each organisation has different levels of competencies and this in itself presents a competitive advantage to some. The organizational resources and capabilities that will be reviewed are crucial to supply chain management effectiveness. Below are some of the topics of discussion regarding elements of resources and capabilities that the supply chain management researches and writers allude to.

3.4 Information Technology

IT as an enabler is vital in any supply chain network. Information is now critical in supply chain management and information technology is allowing companies to transform the way they deal with customers and suppliers. Effective management requires integration of information. New web based tools are the order of the day and organisations need to keep up to date with technology in order to streamline their supply chains. System to system transactions, where systems communicate directly to supplier and customer systems for sales order processing and even payment allocations are on the rise. Cox, (1997), (11) makes a compelling case for the adoption of Information Technology and e-commerce to enhance supply chain efficiencies by eliminating waste, speeding up communication with the customer and in so doing delivering more value to the customer. Ritchie and Brindley, (2001), (13) argues that technology is a key driving force in supply chain management strategies. They promote the effective integration or fusion of information processing and communication technologies to provide organisations with more synergy. They are of the opinion that companies who adopt some of these new technologies could be in a position not only to generate new markets but also to destroy existing markets if the IT adaptation is totally synchronized with the company strategy. In my view and experience it is expedient to adopt new systems, but only once processes have been mapped and re-engineered. The demise of SDD, a large IT distributor in 2001, who implemented new IT systems on broken processes, could be partly blamed on a lack of process re-engineering.

The writers argue that the complexity of the supply chain as indicated in Fig2.6, which was designed by Ritchie and Brindley to depict SCM complexities, has to be taken into account when implementing new technologies. The arrows indicating the interdependence and hence tremendous extreme complexity involved in the supply chain.

Fig. 3.1 Re-assessing the management of the global supply chain

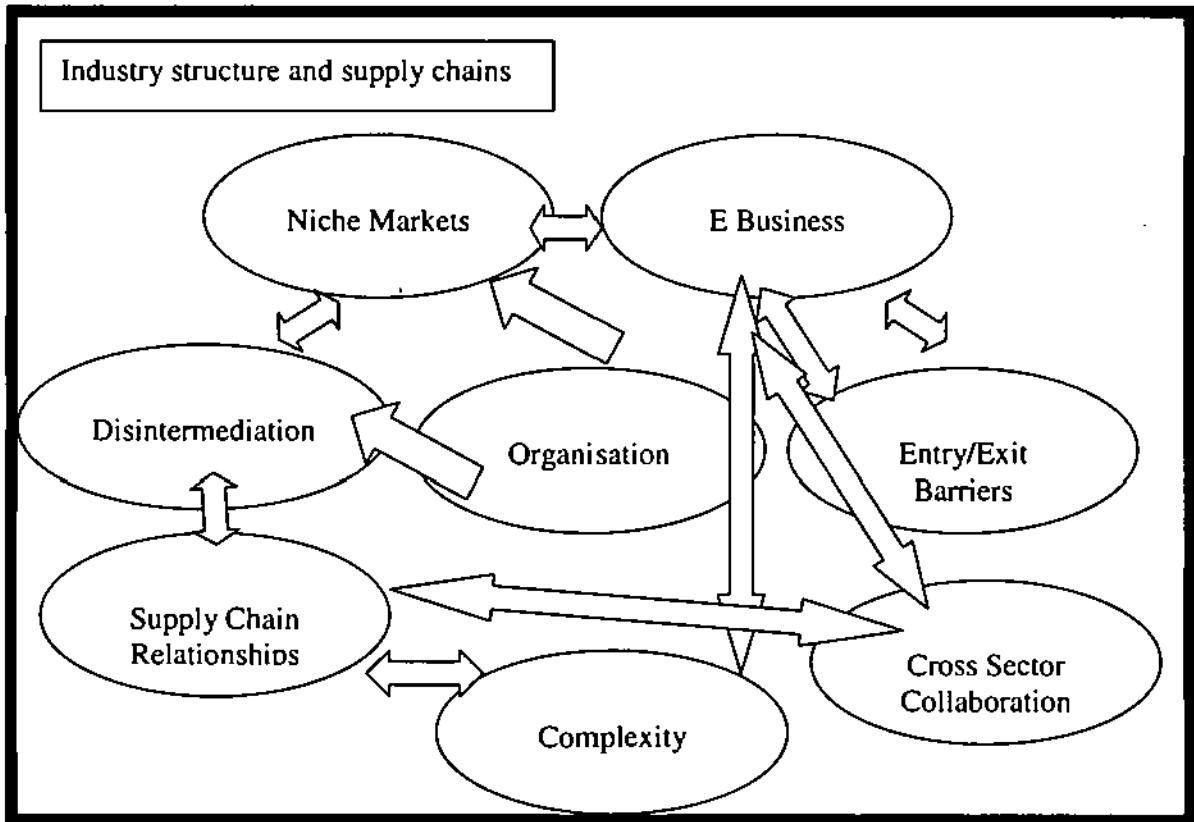


Fig3.1 Ritchie, Brindley, (2001), Re-assessing the management of the global supply chain, Integrated Manufacturing Systems, Emerald

The concept of sharing or pooling stock has seen a rapid increase due to the advent of distribution IT systems and technologies. Anupindi et al (2001), (16), advocates that inventory and distribution decisions can be made easier by the use of technology to satisfy customer demand.

3.5 Competencies & Skills

Pivotal to the supply chain management function is the standard logistics management capability; business acumen and management skills. In a case study undertaken of Whirlpool, a leading white goods supplier, according to Slone, (2004), (4) key to their supply chain turnaround was the fact that they engaged talent and embarked on developing a unique supply chain competency model with one of the American universities in order to encourage their staff to acquire the necessary skills. They then linked this skills development programme to their compensation model and this gave staff the opportunity to improve their knowledge and at the same time have the ability to earn more money. But apart from the inherent skills requirements of the job, researchers have found that additional skills are necessary to set companies apart. These will be discussed below.

Project management according to Slone, (2004) (4) is one of the key skills required for supply chain management staff and in his view project management's disciplined planning and execution is just as vital as ongoing operations management. The only real difference between running a project and running an operation is the due date of the deliverable. Demand responsive supply chains are the latest buzz word and Sheffi, (2005) (17) writes that a wider horizon of forecasting is found in progressive companies and their capabilities include a range of future demand requirements. He insists that today's supply chains must be built to respond to rapid fluctuations and alludes to the fact that specialized demand planning skills is needed in an organisation in order to have an effective supply chain network.

Auditing capabilities in supply chain management might seem far fetched for some, however Fike, (2005), (19) highlighted the case of Kmart implementing a \$130m dollar system to synchronize product delivery with promotional campaigns only to write the amount off two years later because the underlying issues were never addressed which was, *under-performing relationships with suppliers*. He poses the questions; *What are our priorities? What are we sacrificing in the pursuit of something else? And where are we exposed?* He argues that these questions are already answered in many organisations and these answers could more often than not be found in its internal audit departments. He puts forward the idea of the need for auditing skills in SCM to continuously have access to benchmarking and supplier performance measurements in order to keep suppliers to their promises.

De Hock, (2002), (21) asserts that attracting and educating the right supply chain managers is a critical challenge to the realization of most supply chain objectives irrespective of the state of the economy. This is because of the richness of capabilities required to do the job well. He state that the importance of the human aspect is becoming critical and a requirement in this function is people with the ability to influence others. The recommended capabilities required for an innovative supply chain includes: *upgrading* – not just blue collar work in SCM, but actual involvement in strategy, *change management* – is needed simply because things change daily whether it is linked to strategy, like which markets to address or do we outsource, day to day operations like the picking of stock or changing the warehouse layout. Underlying the day to day challenges of keeping things moving and the constant need for change is *learning*, which De Hoek, 2002, recommends should be embraced wholeheartedly. Learning should involve doing things differently by acquiring knowledge, understanding the

acquired knowledge and then changing the behaviour. He then further expounded on the fact that he believes that *emotional intelligence* (EQ) is a key competence requirement for supply chain managers in order for organisations to gain a competitive advantage. The main findings in the articles reviewed are that project management, auditing skills, demand planning and forecasting capabilities, change management, the ability to adapt and learn and emotional intelligence are crucial skill requirements for supply chain management personnel and leaders. The above arguments lead to hypothesis number two:

H2: More than just logistics management skills and competencies are pivotal to effective supply chain management practices.

3.6 Partnerships & Strategic Alliances

Partnering has been recommended as having the potential to enhance problem solving and to improve knowledge of a process by all participants Reed, (1999), Himes, (1995). Cook, (2005) ⁽⁸⁾ asserts that a better understanding of what customers want creates a better understanding of which product types will truly satisfy. They go on to argue that supply chain staff should recognize that their jobs begin and end with the end customer. Even with the onslaught of new technologies and software such as “Just in Time” which is supposed to make the supply chain more efficient there are still many inefficient supply chains and this can be attributed to dysfunctional supplier/service provider partnerships as argued by Fisher, 1997,⁽⁹⁾ Jaber, Friend and Olsen, (2006), ⁽³⁾ who examined why partnerships are important in the supply chain by undertaking a survey amongst key stakeholders and found that the target population immediately identified that the cost savings benefits by streamlining for example procurement, logistics and operations processes in the organisations concerned were hugely welcomed.

They argue that the major driver for companies to initiate partnerships is the **customer** who is becoming more demanding. The challenge however is that most senior executives tend to leave supplier relationships to their procurement managers and often strategic collaborative issues are not discussed. Susskind, (2005), ⁽¹⁰⁾ is of the opinion that care has to be taken when negotiating with key partners, service providers or suppliers who are vital to the company's strategy. He alludes to the fact that most supply chain managers who are focused on cost innovation tend to get it wrong when negotiating renewal contracts with partners. Five key adjustments which is proposed in his article in negotiating tactics include, *paying closer attention to your partner's unique needs and interest, focusing more on creating value and less on distributional battles, emphasizing the relationships long-term importance, giving strategic partners the benefit of the doubt and avoiding surprising partners you care about.* Tan, (2002), ⁽¹²⁾ offers advice in that while supply chain management emphasizes total integration of all business entities within the supply chain, a practical approach is to consider only strategic suppliers and customers since most supply chains are too complex to achieve full integration of the supply chain members. He advocates that a truly integrated supply chain requires a massive commitment by members of the chain. Lings, (2000) ⁽¹⁴⁾ refers to Handfield and Nichols, (1999) who suggested that one of the most important interfaces within the entire supply chain is communication between supplier and customer in order to establish trust. The elements of trust include reliability, competence and openness. A constant two way communication as indicated in a Value chain figure used below as adapted from Porter is needed at all levels in both organisations to determine both parties needs.

Fig. 3.2 Internal Marketing and the Supply Chain

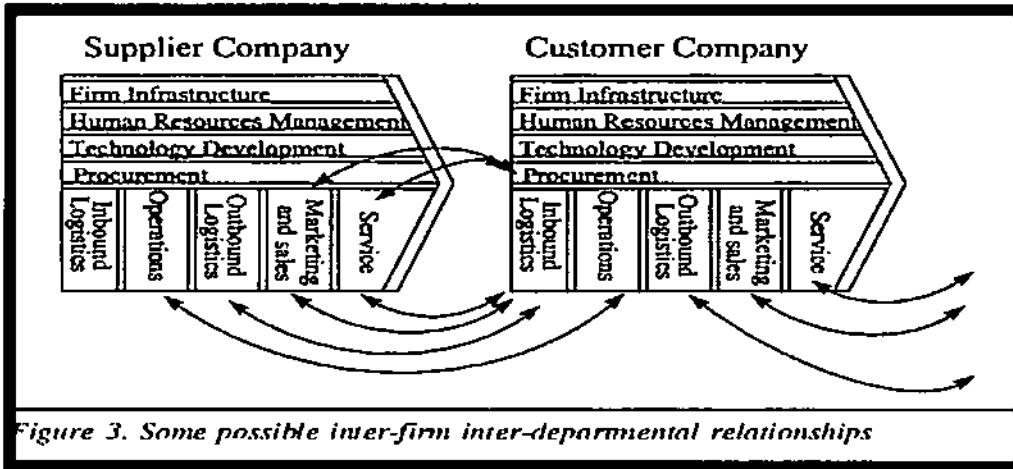


Figure 3. Some possible inter-firm inter-departmental relationships

Fig3.2. Lings, I, (2000), Internal Marketing and the Supply Chain, Journal of Services Marketing,

Kumar, (2006) ⁽¹⁵⁾ concedes that supply chain flexibility can only be achieved through the ongoing strategic involvement with one's key customers and suppliers. He states that all players in the supply chain should be responsible for achieving flexibility.

As an example, the organisation which I represent have realized the importance of strategic alliances with our key customers and have developed 3 customer facing pillars to address each of the unique supply chain requirements that these customers have, as an example the **Retail** division offers merchandising, in store promotions and electronic stock replenishing capabilities, the **Enterprise** solutions division, offers supply contracts for large customers, national desktop delivery services and utility service fee billing to their key customers. Finally the **SMB** division realized the importance of lead generation, price, speed and stock availability in their customer base and has developed a website and national call centre to address their customer needs. Liker, J and Choi, T, (2005), ⁽¹⁸⁾ developed a framework for deeper supplier relationships depicted below with clear steps towards an ultimate deep relationship. They are of the opinion that no

corporation needs to be convinced that in today's scale-driven, technology-intensive global economy, that partnerships are the supply chain's lifeblood.

Fig. 3.3 Building Deeper Relationships, Harvard Business Review – Liker & Choi

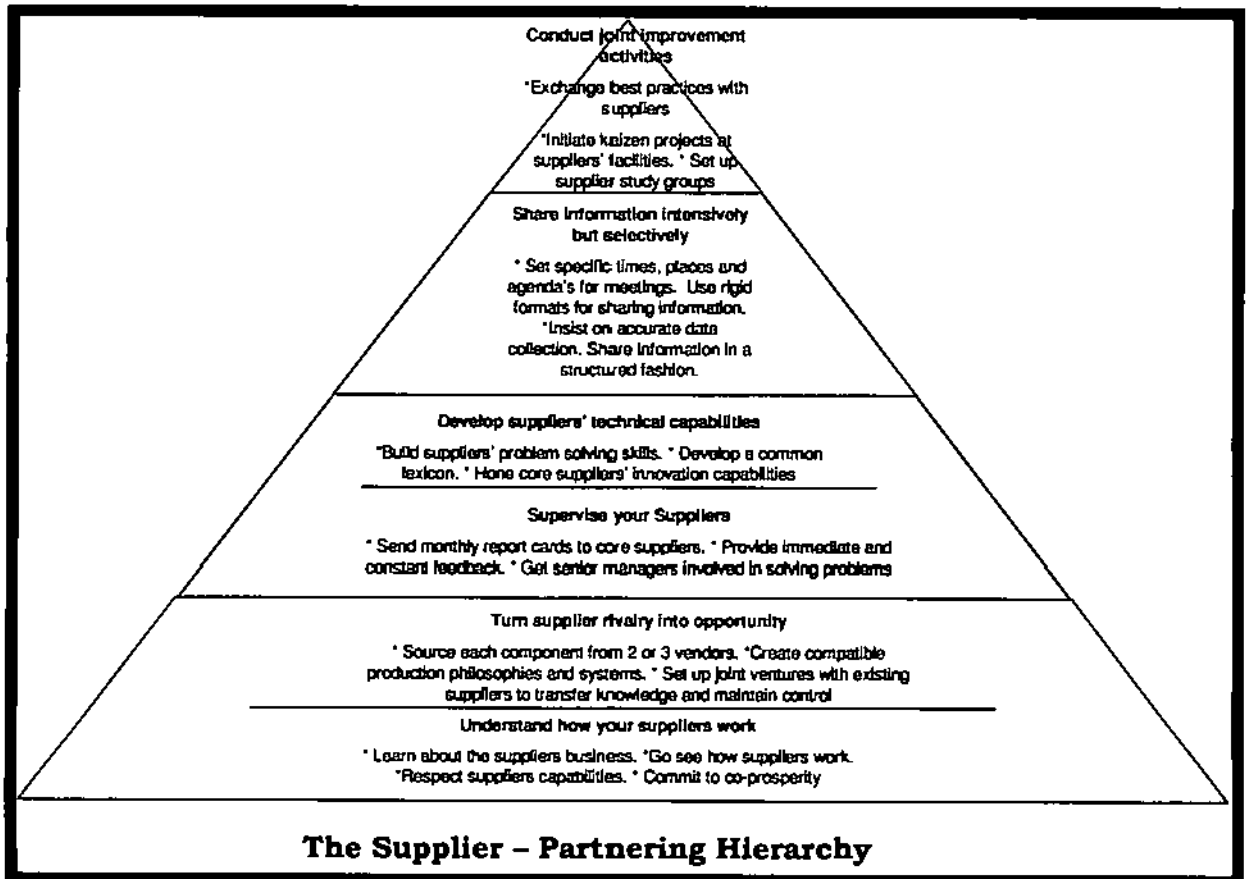


Fig3.3. Liker and Choi, *Building Deeper Supplier Relationships*, Harvard Business Review

The basic premise of the framework is set to build lasting partnerships that enhances prosperity for all parties concerned. All researchers argue that businesses are increasingly relying on their suppliers to reduce costs, improve quality and the ability to develop new processes and products faster than their rivals' vendors can. Kwon & Suh, (2005) (24) quotes Bowersox et al, 2000 by saying "Issues of trust and risk can be significantly more important in supply

chain relationships, because supply chain relationships often involve a higher degree of interdependency between companies. They sight in their article that the biggest stumbling block to successful strategic alliances is the lack of trust. The supply chain relationships model is advocated by Bullington & Bullington, 2005, (25) which attributes the key findings from their research into the success factors of strong families to the time these families spend together, commitment, communication, appreciation for each other, their guiding principles and the ability to constantly change when their circumstances changes. They assert that if these practices can be adopted in the supply chain management arena, longer term successful partnerships will be possible. A graphic depiction of their model can be found below.

Fig 3.4 Building Stronger supply chain relationships

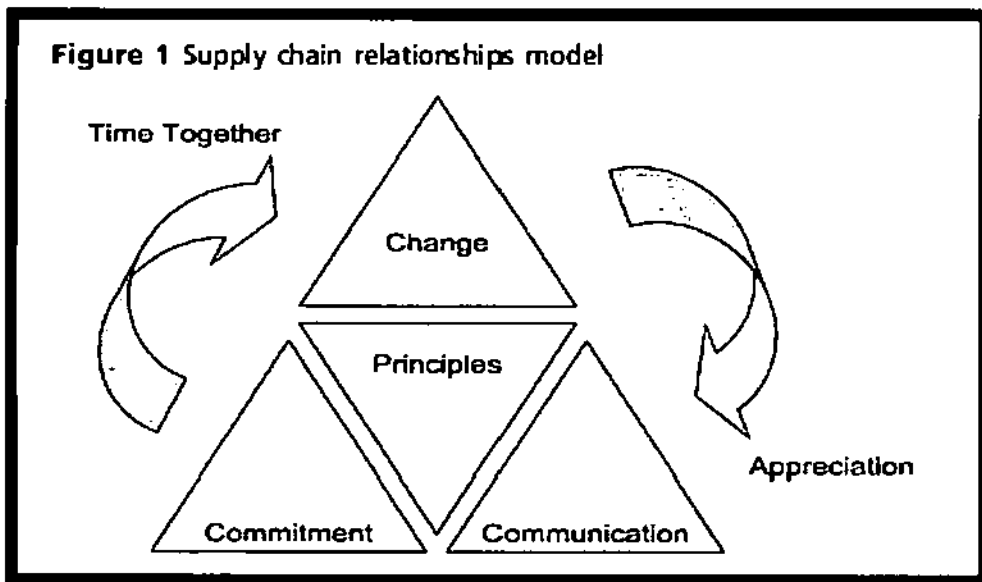


Fig3.4. Bullington K & S, (2005), *Stronger supply chain relationships; learning from research on strong families: Supply chain management, an International Journal: Emerald*

Maheshwari, 2006, (28) asserts that many companies in the last few decades have restructured their businesses, moving away from traditional vertically integrated forms towards leaner and more flexible hybrid organizational forms and these forms are based on co-operative and close relationships among independent companies. He argues that as more and more firms subscribe to the practices and philosophy of supply chain management, they are increasingly linked to their supplier's and customers inextricably throughout the entire value creation process, i.e. from conception and design to the very end of delivering products to end customers and often re-cycling activities post-use.

Pidduck, 2006, (29), is of the opinion that alliances involve multiple partners working together to achieve one goal. The key focus of her paper was to introduce ways of formulating partnerships and the dominant finding of the research stipulated that partners are chosen based on their skills, resources, social network, reputation, politics and their structures, which leads to the 3rd hypothesis.

H3: Closer and more integrated partnerships and alliances are critical for the implementation of effective Supply Chain Management Strategies.

3.7 Summary

The golden thread throughout all of the literature reviewed was how to get the right product, to the right place at the right time, at the right cost, using the right resources and leveraging of the right partner relationships. This may all sound very simplistic but all the planning and innovation that has to go into these few simple steps can be the source of an organisations competitive advantage if synergized and synchronized or of their downfall if neglected. The suggested frameworks and theories presented by the authors in the literature review had to be proven as reliable and acceptable for the IT printer and consumables industry by undertaking empirical research to support or oppose the arguments and ideas stated in this part of the paper.

CHAPTER 4

- 4. Research Design & Methodology**
 - 4.1 Introduction**
 - 4.2 Paradigms**
 - 4.3 Methodology**
 - 4.4 Data Types**
 - 4.5 Data Collection Techniques**
 - 4.6 Data Analysis Techniques**
 - 4.7 Limitations & Delimitations**
 - 4.8 Ethical Issues & Confidentiality**
 - 4.9 Validity, Reliability, Generalisability**
 - 4.10 Pilot Study**
 - 4.11 Summary**

4.1 Introduction

This chapter includes a discussion on data collection methods and analysis, the selected method of choice with a justification of intended use as well as potential bias that could arise in the research along with possible solutions on how to manage these biases. The 3 key objectives of the research dissertation remains:

- An investigation into Supply Chain Management Strategies employed in the IT printer consumables wholesale and distribution sector that provides distinctive competitive advantage.
- The resources and capabilities required to implement these strategies, specifically looking at skills and competency requirements.
- And the supplier, service provider and customer partnerships and alliances needed for effective collaboration in the supply chain.

The interpretation of the literature review conducted in the previous chapter of this research project indicates that effective supply chain management strategies can serve as a vital source of competitive advantage if synergized with an organisations corporate strategy, this assumption needs to be tested. There is also a notion that customer demands and expectations are important in the formulation of supply chain management strategies and this seems to be a common theme throughout most of the articles perused. The assertion that effective supply chain management strategies can only be implemented and accomplished through tighter integration and collaboration with key suppliers and closer alliances with service providers also comes to the fore. The literature review further highlighted that key specific skills needed in the supply chain, includes auditing, demand planning and forecasting competencies as well as project management skills and capabilities. Throughout the literature review we have established what the writer's opinions are about effective supply chain management and based on this we now further aim delve into the minds of the chosen target population to establish if these opinions are held in this specific industry or not.

4.2. Paradigms

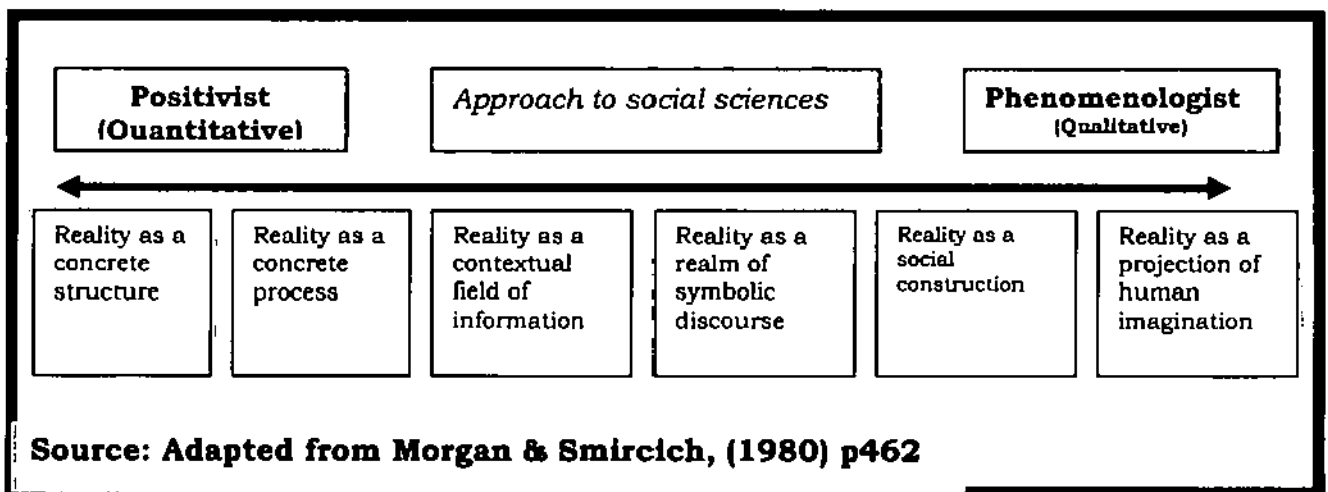
From a scientific view point Paradigms according to Kuhn, (1962) is defined as:

- *what* is to be observed and scrutinized,
- the kind of *questions* that are supposed to be asked and probed for answers in relation to this subject,
- *how* these questions are to be structured,
- *how* the results of scientific investigations should be interpreted

The paradigm that controls us and that we portray is based on our belief and value systems about the world and how we see it. This will determine the way

we think, act and are acted upon. It is argued that there are two main paradigms, *qualitative* and *quantitative*, and various writers have strong views on each of them as they are two extremes and not too many people would apply and operate within their clean structures. Morgan and Smircich (1980) argued that paradigms can be viewed as a continuum flowing from the very quantitative to the extremely qualitative forms with a combination of six stages in between, from one end to the other. These stages are basic realities as viewed by the respondents; a depiction of this is included below.

Fig.4.1 Continuum of core ontological assumptions



The basic premise is that people answer questionnaires or give opinions based on what they believe to hold true about a situation and this could sometimes be subjective. We need to constantly take into account the nature of the reality of a situation, check what our relationship is to what is being researched, look at the role of our values, our language usage (formal or informal) and the process of the research. There is no right or wrong paradigm and it can be as objective or subjective as the respondent and the researcher want it to be. In the end everything is open for interpretation and this in itself can either have an objective

or subjective angle to it. I embrace diversity and a broad viewpoint on life and realize that there are various ways to approach a problem or situation and therefore will seek a dual strategy in research methodology. A fair amount of the variables in the research is controllable which can be done in the form of a survey questionnaire, while some of the data will be open for interpretation due to subjective views of the target population in the personalized semi-structured interviews.

Therefore the chosen paradigm of this research project was predominantly phenomenological however the data collection methods have included a search for both quantitative and qualitative information. The two main paradigms or view of the world or guidelines to conduct research, positivistic or phenomenological will determine the data collection methods used. Dependent on the chosen research paradigm one can use different methods. Undertaking very scientific research projects students have to focus on the objective hard facts. This quantitative approach according to Leedy and Ormrod, 2005: 94, is used to answer questions about relationships among measured variables with the purpose of explaining, predicting and controlling phenomena, and for this reason quantitative researchers (positivists) chooses methods that allows them to objectively measure the variables of interest. The quantitative data will include numeric data, will be representative of a large sample and standardized instruments will be used when conducting the research. Reliability and validity is key in the quantitative approach.

On the other hand the qualitative approach is normally used to answer questions about the complex nature of phenomena, with the purpose of describing and understanding the phenomena from the participant's point of view. This is

subjective, interpretive data and can be collected in a loosely or in a semi structured way. Observation, conversation, imaged based data and small samples are often used for this type of data collection. Qualitative researchers (phenomenologist) tend to rely more on deductive reasoning and then drawing logical conclusions from them. Observations, interviews, surveys and questionnaires are used to collect data. Phenomenological research can however produce both qualitative and quantitative data, which is the reason why I have chosen this paradigm for the dissertation, as the research is not purely scientific but will also value the various opinions and perceptions of the industry leaders. The choice of the phenomenological paradigm in the data collection process will allow us to test the validity about certain assumptions, claims and generalizations held in this industry about the importance of supply chain management strategies, skills requirements and the partnerships and collaboration.

4.3. Methodology (Why, When, What, Who, How)

Methodology is concerned with why data is collected, what data is collected, where the data is collected from, when the data will be collected, how the data was collected and how it will be analysed.

Methodology includes the following concepts as they relate to a particular discipline or field of inquiry:

1. a collection of theories, concepts or ideas;
2. comparative study of different approaches; and
3. critique of the individual methods

A mixed method approach was chosen for this research paper. The approach that was adopted was to explore the perspectives of the selected companies and

individuals involved at key interfaces in the supply chain. The research methodology was both from a quantitative perspective in the form of questionnaire surveys, which looked at the *objective* facts and statistics, in this view, facts exist independently of any theories or human observation. The qualitative approach was used to determine the perceptions of the key target population and this took place in the form of interviews to seek a deeper understanding of what is happening in the context of the research themes and to obtain *subjective* data. In this view, facts become "facts" and are a construct of theories and points of view.

The quantitative data focused on a larger sample size. The job titles and industry sub sectors of population were asked to give a view of the management levels and sub sector representation of the participants. A determination of the percentage of people who agreed or disagreed with specific statements in the questionnaire was made. One hundred and twenty six (126) industry respondents were invited to participate and completed an online web questionnaire anonymously. The qualitative side of the data will be interpretive and aims to convey the perceptions and subjective opinions of the population.

The qualitative research was done by using semi-structured interviews as an instrument and a specific target population of 15 industry leaders was approached for their opinions on the research topic.

Pivotal to the research was the ability to highlight the strengths and weaknesses in the current supply chain with regards to the themes. It was therefore of monumental importance that top supply chain executives, management and

senior staff in the supply chain network in the industry were approached for responses.

Further discussion that follows aims to elucidate the data collection and analysis methods of choice selected for this research project to test whether the target population in this industry are of the same opinion as the writers in the literature review or not and to assess whether the industry participants had any alternative views on the topic.

4.4. Data Types & Research variables

For the questionnaire survey that was used, quantitative data was applied to give an indication of the number and percentage of the target population's opinion to a particular point. Accuracy of measurement had to be ensured in order to have an objective data sample. From the individual interviews a more in-depth qualitative approach was used. This aimed to show deeper answers to questions and individual opinions of the target population. Response rates and demographics of the target population will be discussed in the quantitative data and in qualitative data analysis will look at in-depth observations of the participants. As both qualitative and quantitative data will be discussed, a nominal scale which permits the classification of for example "occupation" or titles of the population will be used to classify views held.

4.5. Data Collection Techniques

The establishment of a data collection process was the fundamental step at the start of this research activity. According to the below internet source a data collection process ensures that a research project can efficiently and accurately collate data enabling the researcher to measure and establish a baseline of current

performance whilst quantifying (and proving) later improvements. The notion is argued that without accurate and timely information, improvements on research projects can flounder, change agents may guess at fixes and resultant solutions could be inappropriate. <<<http://www.leanyourcompany.com>>> “Research seeks, through data, to discover underlying truths” as per Leedy and Ormrod, 2005:89

4.5.1. Data Collection Methods

The selected method of choice for the research will include both a survey questionnaire and semi-structured interviews. An invitation to complete the online survey questionnaire was sent to a large sample of customers, suppliers, service providers and colleagues in the IT printer and consumables industry and included structured statements using the Likert scale model to determine whether they view supply chain management strategies, skills and partnerships as key components of supply chain management in the IT printer and consumables distribution market. The Likert scale is a technique for the measurement of attitudes. The respondent is asked to indicate his or her degree of agreement with the statement or any kind of subjective or objective evaluation of the statement. Traditionally a five-point scale is used. A sample of the Likert scale model was found in Collis and Hussey, 2003:183 and this was used for the online questionnaire.

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Strongly agree

Likert scaling is a bipolar scaling method, measuring either positive or negative response to a statement. Sometimes Likert scales are used in a forced choice method where the middle option of "Neither agree nor disagree" is not available. Likert scales may be subject to distortion from several causes. Population may avoid using extreme response categories (central tendency bias); agree with statements as presented (acquiescence bias). Acquiescence bias is a category of response bias in which the target population to a survey have a tendency to agree with all the questions or to indicate a positive connotation; or try to portray themselves or their organization in a more favorable light (social desirability bias). <<<http://www.wikipedia.org>>>

4.5.2 Relationship of Questionnaire to Objectives

The outcome of the data of the questionnaire will be quantitative with comparisons drawn between which participants view which statements as being more important than others. The questionnaire further aimed to determine the key focus areas in the supply chain of each respondent within the next year. All of this needed to link back to main objectives of strategies, skills and partnerships. This method is appropriate for use in the research because it will allow us to have an insight into the level of understanding about supply chain management in this industry. A semi cross sectional study was undertaken as various players in the industry were asked to complete the questionnaire and this lends itself to finding correlations between supplier, vendor, service provider and customer understanding of the research topic. (Collis and Hussey, 2003:61)

4.5.3 Sampling

The selection of the 'research population' was of utmost importance to obtain accurate results in the survey. Where it was impossible to reach all members of the targeted population, random sampling was executed, so that key findings could be generalized with confidence. In the sample survey, weighting of the data collected was undertaken, so that sample information was made representative of the total population. Data was also edited to remove inherent improbabilities and errors in collection, e.g. when someone ticks the same question with two options on the Likert scale. In some cases, missing information has to be imputed to improve the data quality. The semi structured interviews on the other hand tried to delve a little deeper into the opinions held by key players in the industry and specifically in our own company. Random sampling was used due to the fact that the target population was a small group. Each respondent was given a number and like a raffle the numbers was drawn out of a hat to determine which population to use as the sample. The reason for this choice can be attributed to the fact that some sensitive information was required from the participants and by choosing a random sample, no single company will be exposed and therefore keeping the research objective. A stratified random selection method as explained in Leedy and Ormrod, 2005:199-202 was used to choose the sample population who was interviewed and asked to complete the questionnaire in the pilot phase. The aim of this small sample was to have an unbiased group of people chosen randomly to complete the questionnaire in order to satisfy the need of the investigation and to find any question errors. In the interview surveys the emphasis was on quality and depth of the data. Careful selection was applied to ensure that good representation of resellers, vendors and distributors as well as various levels of leaders, managers and staff was approached to complete the questionnaire to ensure that a broader picture is given with regards to the research

question. This is also known as a qualitative variable according to Collis and Hussey, 2003:153, due to the fact that people from different job positions were asked to participate. This further assisted in overcoming bias as not only the views of MD's will be sought.

4.5.4 Sampling Techniques

The below table is used to describe the some of the various techniques, a brief description of the techniques and the strengths and weaknesses of each.

Table: 4.1 Sampling Techniques

Sampling Techniques	Description	Weaknesses	Strengths
Random Sampling	Each respondent is given a number and like in a raffle the numbers are pulled out of a hat to determine the sample.	Could result in some members of the population being significantly under or over represented	A sample from a population which has been chosen at random and is large enough can turn out to be completely unbiased.
Systematic Sampling	The population is divided by the required sample size (n) and the sample is chosen by every 'nth' subject. Example. Every 10 th of 15 th person	Could result in some members of the population being significantly under or over represented	A sample from a population which has been chosen systematically random and is large enough can turn out to be completely unbiased

Stratified Sampling	Strata, like directors, managers and employees are chosen. Then 25% of the sample should include the strata choice. Example 25% directors.	Could be difficult to use if unsure of the respondent titles. (which can be overcome if a tick box exist on questionnaire)	This sample overcomes over or under representation of the random sample method
Quota Sampling	Is similar to stratified sampling or one can set a particular quota dependent on the profile of the population (age, gender, title etc)		

Many of the above methods present problems with sample bias, because a sampling frame cannot be unambiguously identified in advance as argued by Collis & Hussey, 2003.

4.5.5 Bias

A bias is a prejudice in a general or specific sense, usually in the sense of having a preference to one particular point of view or ideological perspective. However, one is generally only said to be biased if one's powers of judgment are influenced by the biases one holds, to the extent that one's views could not be taken as being neutral or objective, but instead as subjective (www.wikipedia.org)

The integrity of the data collected can affect errors or bias in research results. Bonoma (1985) argues that all researchers desire high levels of data integrity. An

attempt was made to for the researcher to remain completely neutral from the process to ensure unbiased reporting.

4.5.6 Target Population

The profile and set of the target population who were chosen to participate in the research project included MD’s, Business Owners, Supply Chain Executives, Operations Directors, Sales Directors, Sales staff, Supply Chain, Purchasing and Logistics senior members of staff in the printer consumables industry. The number of targeted individuals for the questionnaire = (n) 126. The pilot sample size was set at (n) 30. The targeted population for interview was set at (n) 15 and the pilot sample size was set at (n) 5.

4.5.7 Resources, Issues & Timing

The questionnaire was compiled and tested over a period of one month. Once the invitation for participation was distributed the data collection started. A timeline depicting activities are enclosed on the following page.

Table 4.2. Project Timeline

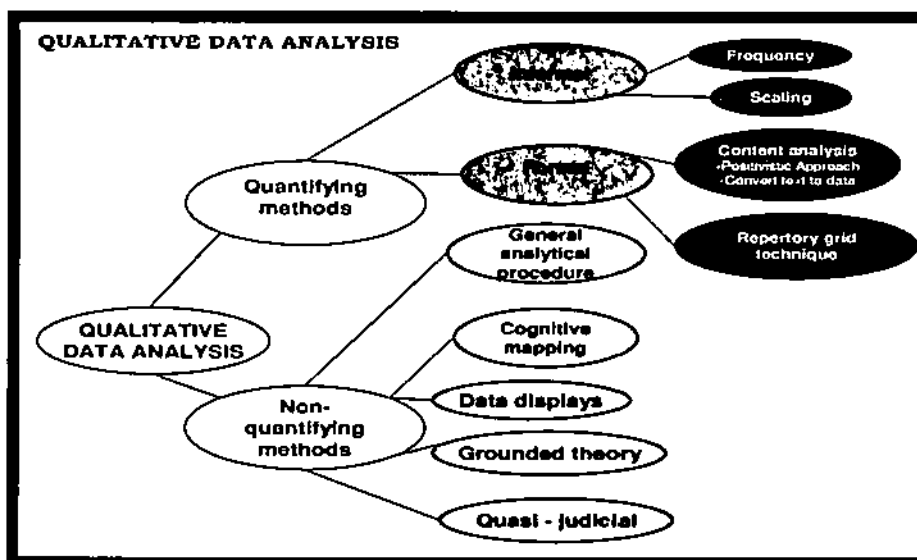
Table sis Project Plan												
Activity	J 07	F 07	M 07	A 07	M 07	J 07	J 07	A 07	S 07	O 07	N 07	
1 Topic Selection												
2 Chapter 1 Problem In Context												
3 Chapter 2 Problem Analysis												
4 Chapter 3 Literature Review												
5 Chapter 4 Research Design												
6 Physical Data Collection												
7 Data Analysis												
8 Chapter 5 Results Discussion												
9 Chapter 6 Conclusion & Recommendation												
10 Chapter 7 Learning & Reflection												
12 Final Report Writing & Review												
13 Submission												

The data collection process was extremely efficient as the target population found it quick and easy to complete the online questionnaire. Most responses for the online questionnaire were collected within one week. The semi-structured interviews on the other hand proved more challenging as the chosen industry leaders were extremely difficult to pin down for an hour interview. The interview process occurred over a six week period. The resources used included a web designer to design and host the online questionnaire, data recording equipment for the interviews and portable computing technology.

4.6 Data Analysis Techniques

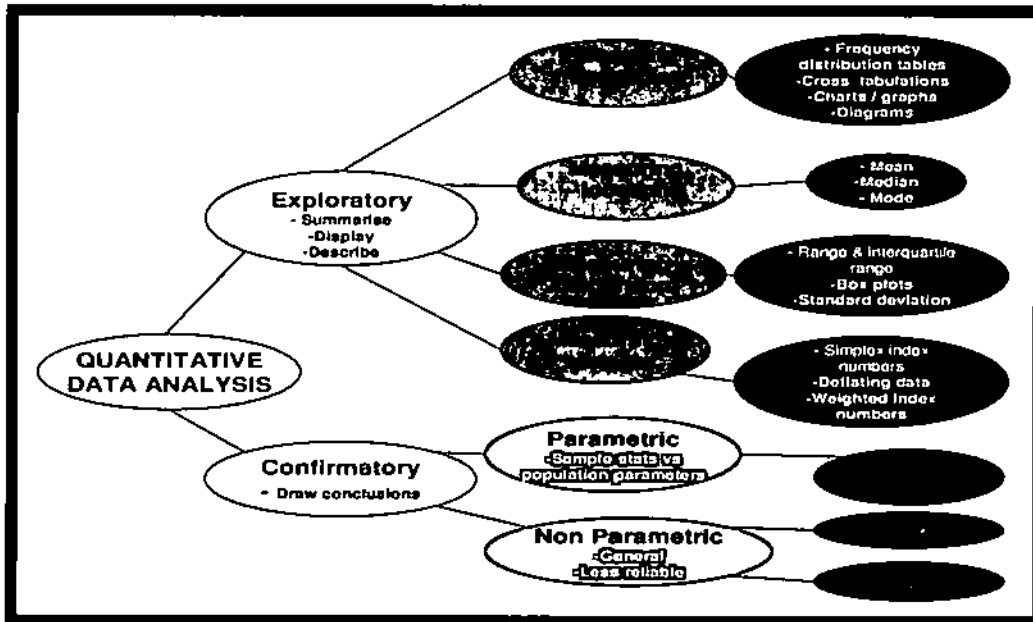
In order to make sense and analyze the data gathered various techniques may be used. For the purposes of this study the qualitative data was analyzed using non-quantifying methods of **cognitive mapping**, a method of analysis which can be used to structure, analyse and make sense of written or verbal accounts of problems', Collis and Hussey, 2006 : 265. We will also quantify some of the qualitative research data in the form of graphs for clarity.

Fig.4.2 Qualitative Data Analysis Techniques (acknowledgement MBA2006 Student)



The quantitative data will be presented using charts and graphs for ease of interpretation, presenting the frequency that the agreed statements appeared.

Fig.4.3 Quantitative Data Analysis Techniques (acknowledgement MBA2006 Student)



4.7 Limitations & Delimitations

Due to the vast topic of discussions that can take place under the main theme: Supply Chain Management, this research was limited to the key theme indicated in point 1, in the background of this paper. (Distinctive Strategies, Competencies & Partnerships). What was not done, as part of the delimitations includes identifying which strategies will be suitable, this could be a natural extension of this research. Focus needed to be kept on the main topics of discussion as it would have been easy to be side tracked with more interesting topics of discussion under the main theme. Another limitation to the study is that due to the sensitive nature of financial information unlisted companies did not want to

share information that could have been crucial to do comparative analysis of efficiency ratios between companies who embrace supply chain management strategies and those who don't or maybe just to see if companies with better perceived strategies are more efficient and profitable than others.

4.8 Ethical Issues & Confidentiality

Consent had to be granted by the target population to participate in the research. The purpose of the research was clearly stated upfront. The target population was also assured of the confidentiality of their answers because the survey questionnaire was done anonymously. An email was sent to the proposed target population stating the purpose of the research and inviting them to participate by accessing the provided web link.

4.9 Validity, Reliability, Generalisability

Reliability is concerned with the credibility of the findings, and the findings should be repeatable if another researcher undertakes the research. Validity is the extent to which the research findings accurately represent what is really happening in the situation. Generalisability is concerned with the application of research results to cases or situations beyond those examined in the study. (Collis & Hussey, 2003: 56-57). The chosen research constructs can be applied to any industry. Every attempt was made to ensure that questions asked were valid to the original problem statement, hence bringing forth reliability.

4.10 Pilot Study

The prime benefit of this study is that it aimed at providing valuable insight on key issues in managing supply chain strategies, competency requirements and partnerships. The role of the pilot study was to determine whether organisations

in the printer consumables industry first of all have sound documented SCM strategies. And if they do, whether these SCM strategies are linked to their business strategy, additionally it will be vital to determine whether they have more than just logistics management competencies for successful SCM implementation. Finally a test was taken whether the target population believed that partnerships and alliances can assist with the successful implementation of their chosen supply chain management strategies. The pilot study as undertaken to determine whether the questions contained in the online link and the semi-structured interview questionnaire were valid and understood. Once changes were recommended and the questionnaires were amended the entire target population was approached for comment.

4.11 Summary

This chapter outlined the research methodology of this empirical study. It included a discussion of the justification of the research method used, the profile of the targeted population, the research instruments as well as data collection and analysis techniques preferred.

CHAPTER 5

5. Results and Discussion

5.1 Introduction

5.2 Problem Statement

Part 1 (online Questionnaire)

5.3 Overview

5.4 Research Objective 1 Results - Strategies

5.5 Research Objective 2 Results - Skills

5.6 Research Objective 3 Results – Partnerships

5.7 Summary Part 1

Part 2 (semi structured interviews)

5.8 Results Discussion

5.9 Summary Part 2

5.1 Introduction

This chapter aims to make clear the empirical research results. The previous chapter discussed the technical aspects of the research design and methodology. The research discussion will include key focus areas highlighted by the research, the demographics of the target population, an industry representation analysis and the results discussion per objective. The first part of this results discussion will include analysis from the anonymous online questionnaire which was answered by 90 of the 126 target population invited and the second part will make clear the qualitative views of the 10 leaders in the IT printer and consumables sector who participated in the semi-structured interviews out of the 15 participants that were invited.

5.2 Problem Statement

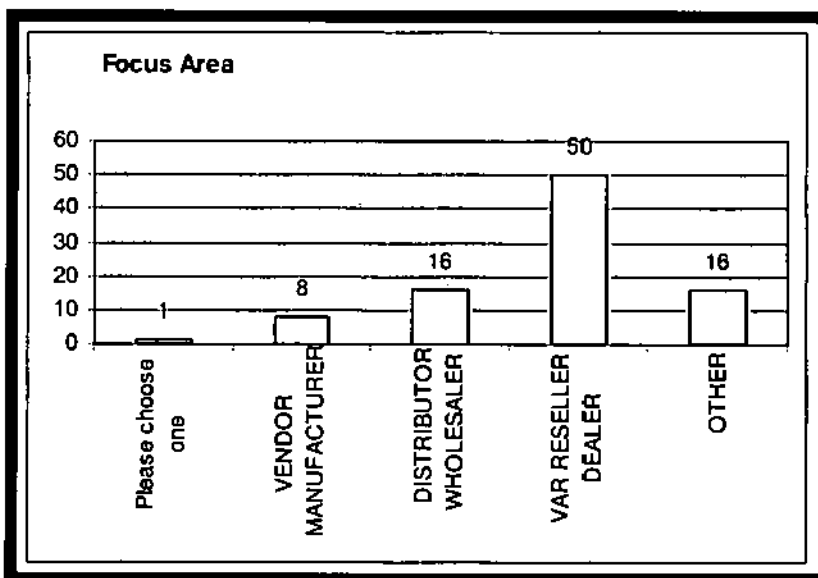
An Investigation into the constructs of effective supply chain management, by analyzing strategies that can provide distinctive differentiation, identifying key skills and competencies required for effective implementation of these strategies and seeking the criteria and attributes of successful partnerships and alliances that can offer profitability and sustainability in the South African I.T. printer and consumables industry.

PART 1

5.3 Overview of Online Questionnaire Responses

The target group of 126 targeted respondents that were chosen to participate in this study, as part of the anonymous online questionnaire, represented business leaders, owners and employees from across the IT printer and consumables channel and included manufacturers or vendors, wholesalers or distributors and reseller or dealers. As indicated in Fig. 5.1 below, 50% of the population was represented by the reseller channel which is a reflection of the channel structure and the fact that there are only limited number of vendors and wholesalers represented in the country who ultimately distributes printers and consumables through the dealer channel.

Figure 5.1 Channel Representation



5.3.1 Demographics

As indicated in Fig 5.2 below 24% of the total population of the anonymous online questionnaire was represented by industry business leaders which included MD's and CEO's. Fig. 5.3 then breaks the demographics of the population down further into actual job titles to show fair representation across business units or functions within the each company.

Figure 5.2 Population Area of responsibility

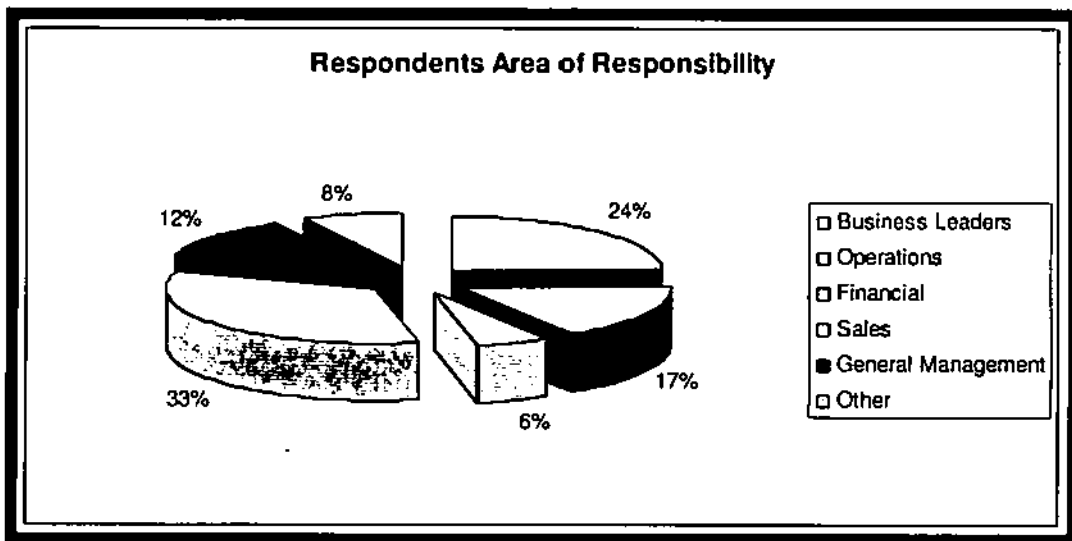
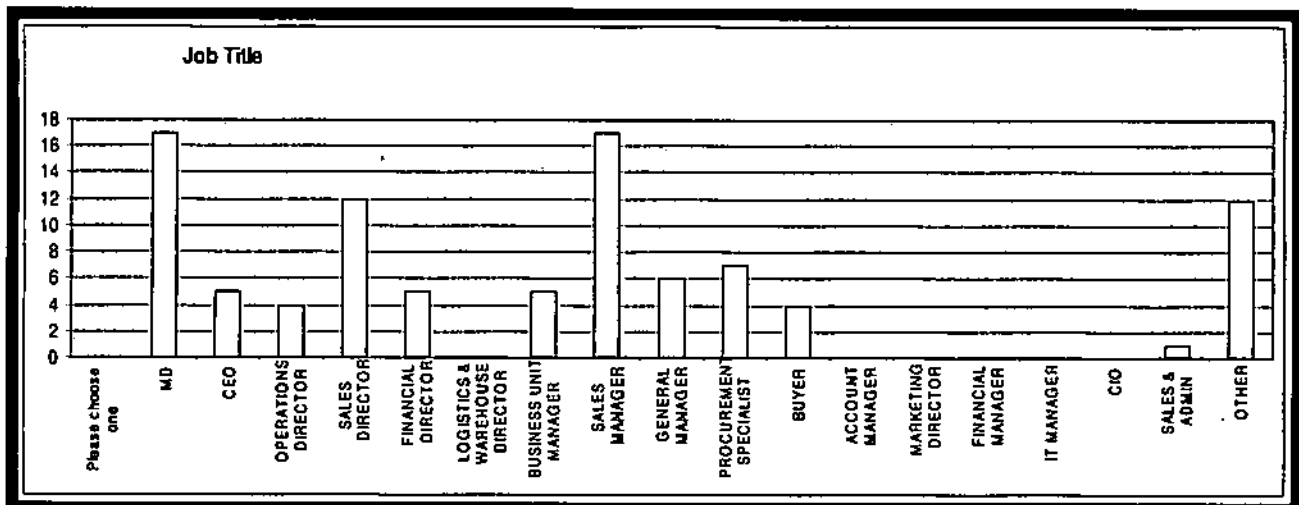


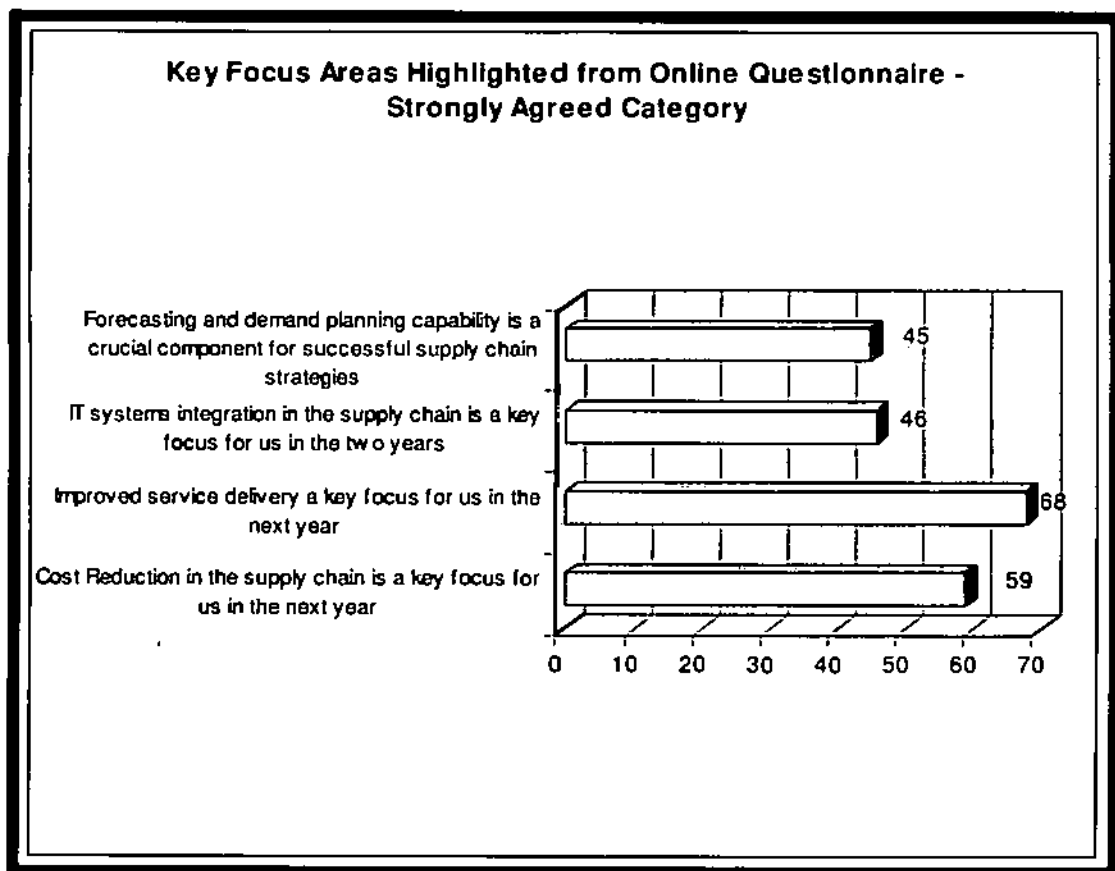
Figure 5.3 Population Job Titles



5.3.2 Key Highlighted Focus Areas

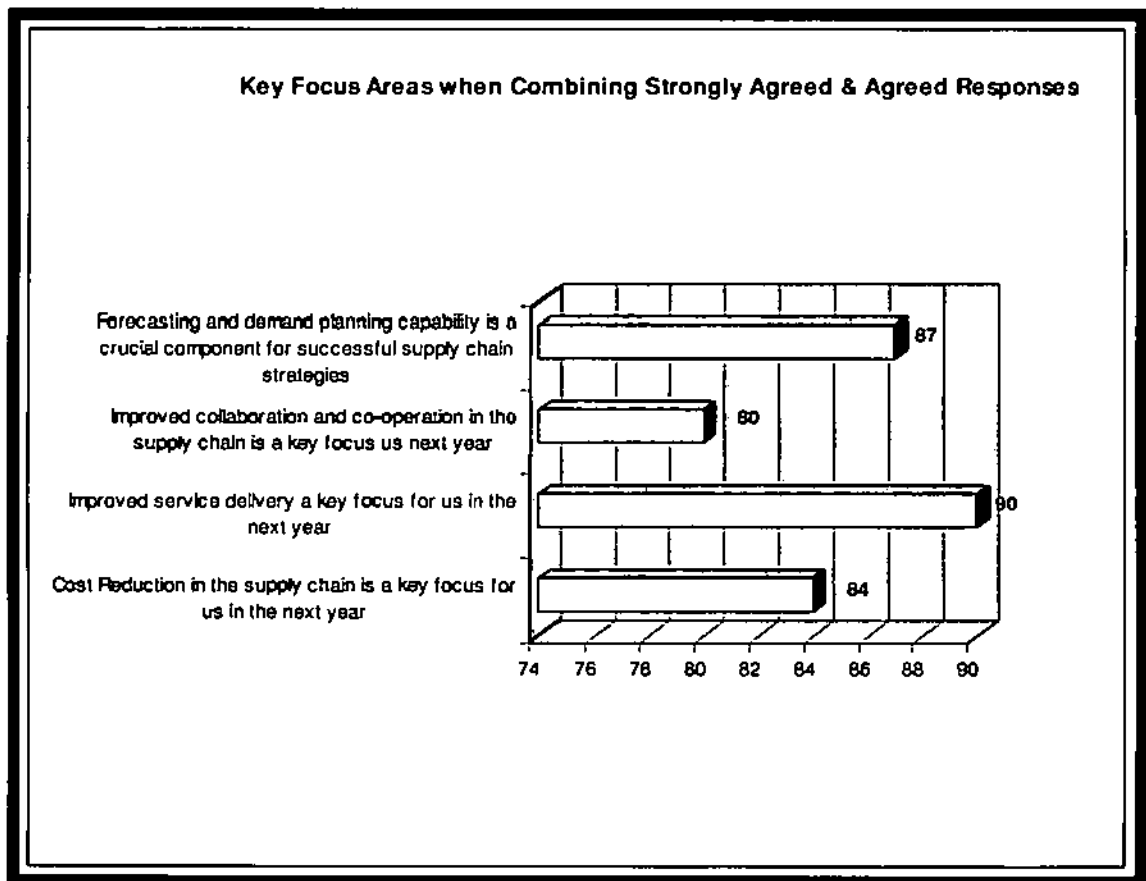
The four key areas for improvements highlighted by the target population who strongly agreed with the statements are shown below in fig. 5.4. The values indicated below are the number of respondents who strongly agreed with the statements out of the 90 who participated in this research. 76% believe that first and foremost improved service delivery will be a key focus for their businesses in the next year. Followed by 66% who will focus on cost reduction in the supply chain, 51% will focus on IT systems upgrades and 50% say that developing demand planning and forecasting skills are crucial for them.

Figure 5.4 Key Focus Areas Highlighted in Online Questionnaire in Strongly agreed category



By combining the both the strongly agreed and the agreed categories the main focus areas revealed remained fairly similar with the exception of improved collaboration across the supply chain coming to the fore as another focus point for the target population, fig 5.5 below indicates that 100% of the combined population strongly agreed and agreed that improved service delivery is a key focus for them next year. Followed by cost reduction in the supply chain, forecasting and demand planning, a lastly an indication that there will be a focus on collaboration in the supply chain.

Figure 5.5 Key Focus Areas Highlighted in Online Questionnaire by combining both the strongly agreed and agreed categories



5.4 Objective 1 – Results discussion – SCM Strategies

The primary objective of this part research was to investigate whether effective supply chain management strategies in the South African IT printer and consumables industry can provide organisations with sustainability and distinctive competitive advantage.

Although 45% of the target population confirmed that they have a documented SCM Strategy, 94% do not have an executive or key individual responsible for SCM in their organisations, so one can question whether there truly is a focus on this specific area of business in this industry with no key individual driving a strategy. 36% of the target population does not benchmark their SCM activities while over 53% are of the belief that their SCM strategies are not in need of re-definition. As per both the Porters 5 forces model and the resource based management model, benchmarking is crucial to determine the power base of the key players and the capabilities or limitations of internal resources of companies.

Fig 5.6 Benchmarking

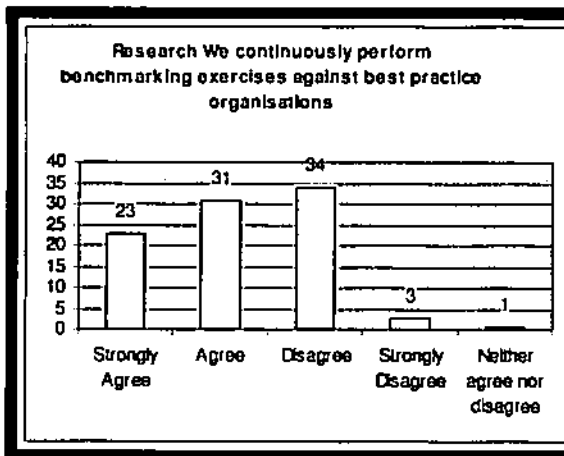
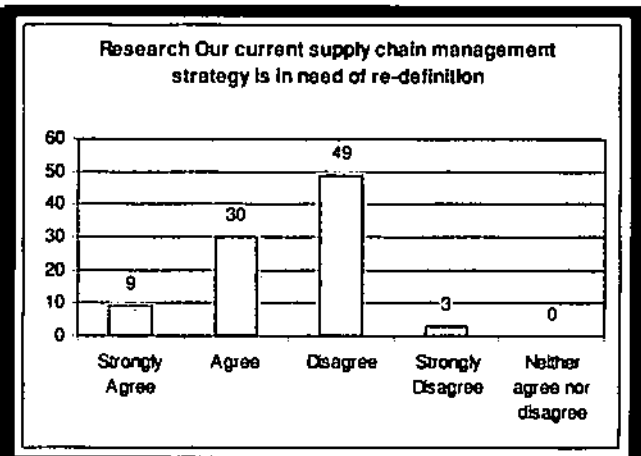
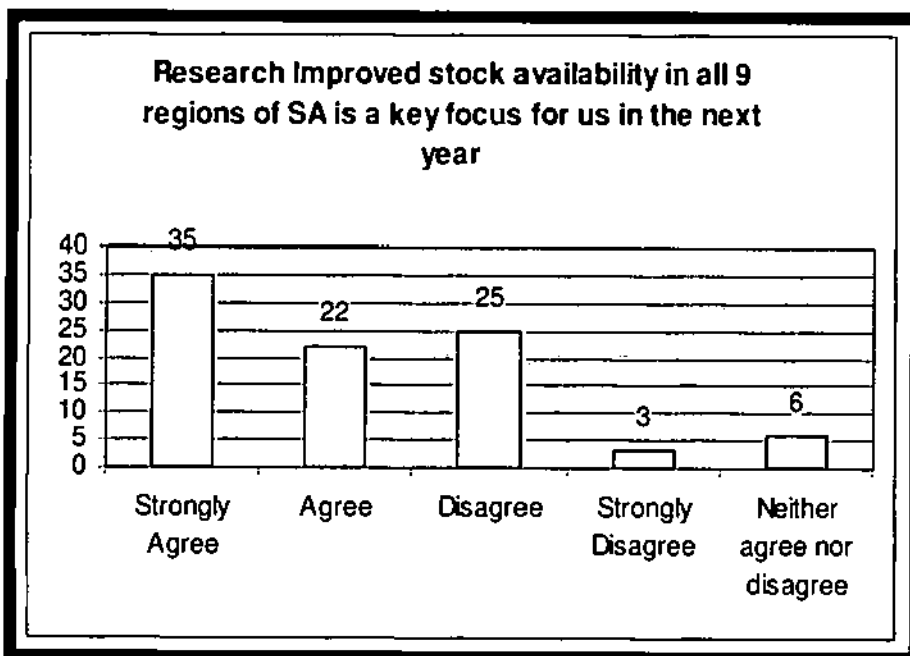


Fig 5.7 Strategy Re-definition



In terms of strategies 93% of the population say they will embark on cost reduction strategies in the next year, however strangely 63% still view stockholding as a key focus for them in the nine regions of the country making the term “stockless” reseller null and void and reveals that resellers truly have not identified ways that collaboration in the supply chain can empower them to reduce costs and enhance service delivery, if they are still dependent on their own stock holding capabilities.

Fig 5.8 Stock holding Focus



5.5 Objective 2 – Results discussion – SCM Skills & Competencies

The key aspect of this part of the research was to identify the vital skills and competencies needed to implement effective supply chain management strategies in the IT printer and consumables industry.

94% of the target population do not employ the services of a supply chain executive in their organisations, which illuminates the fact that skills development is still all talk and no action in the SCM sphere because even when combining the strongly agreed and agreed categories, 70% of the population view supply chain management skills development as a key focus point for them in the next year but question arises how this can be done if there are no leading individuals in these organisations to implement and execute SCM strategies.

Fig 5.9 SCM Skills Development

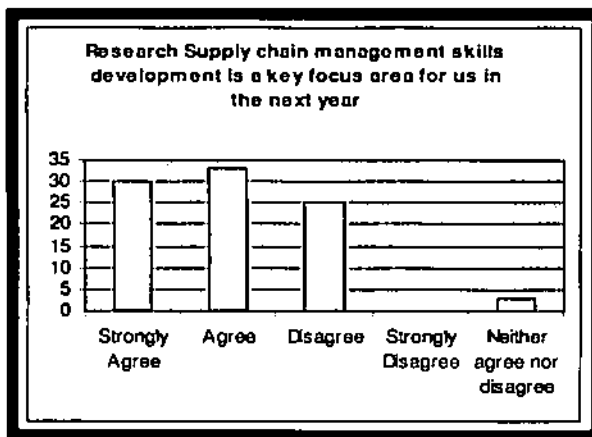
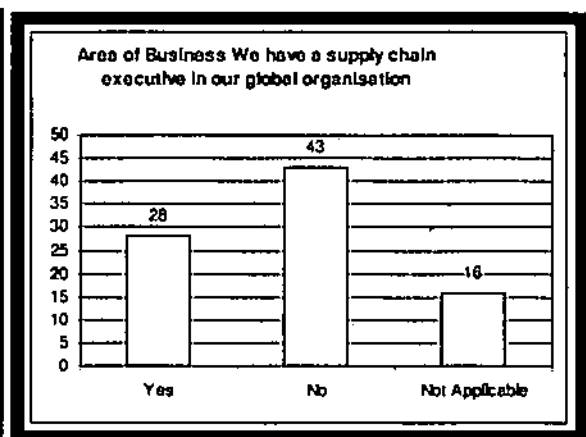


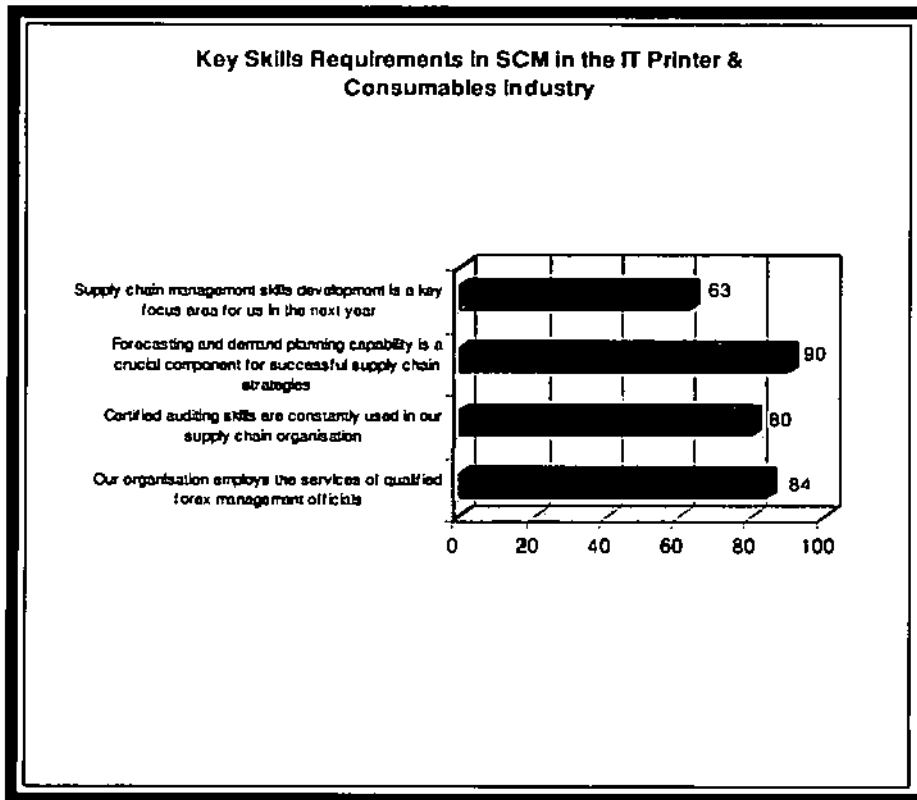
Fig. 5.10 Supply Chain Executive



100% of the target population questioned revealed that forecasting and demand planning capabilities is the most crucial component of successful supply chain management implementation and that these skills are highly sought after.

Followed by forex management and auditing skills. See Fig. 5.11 on the next page. Planning and forecasting was raised as an issue in a forceful manner and the challenge is to find or develop the necessary skills in the channel.

Fig. 5.11 Key Skills requirements in the Supply Chain

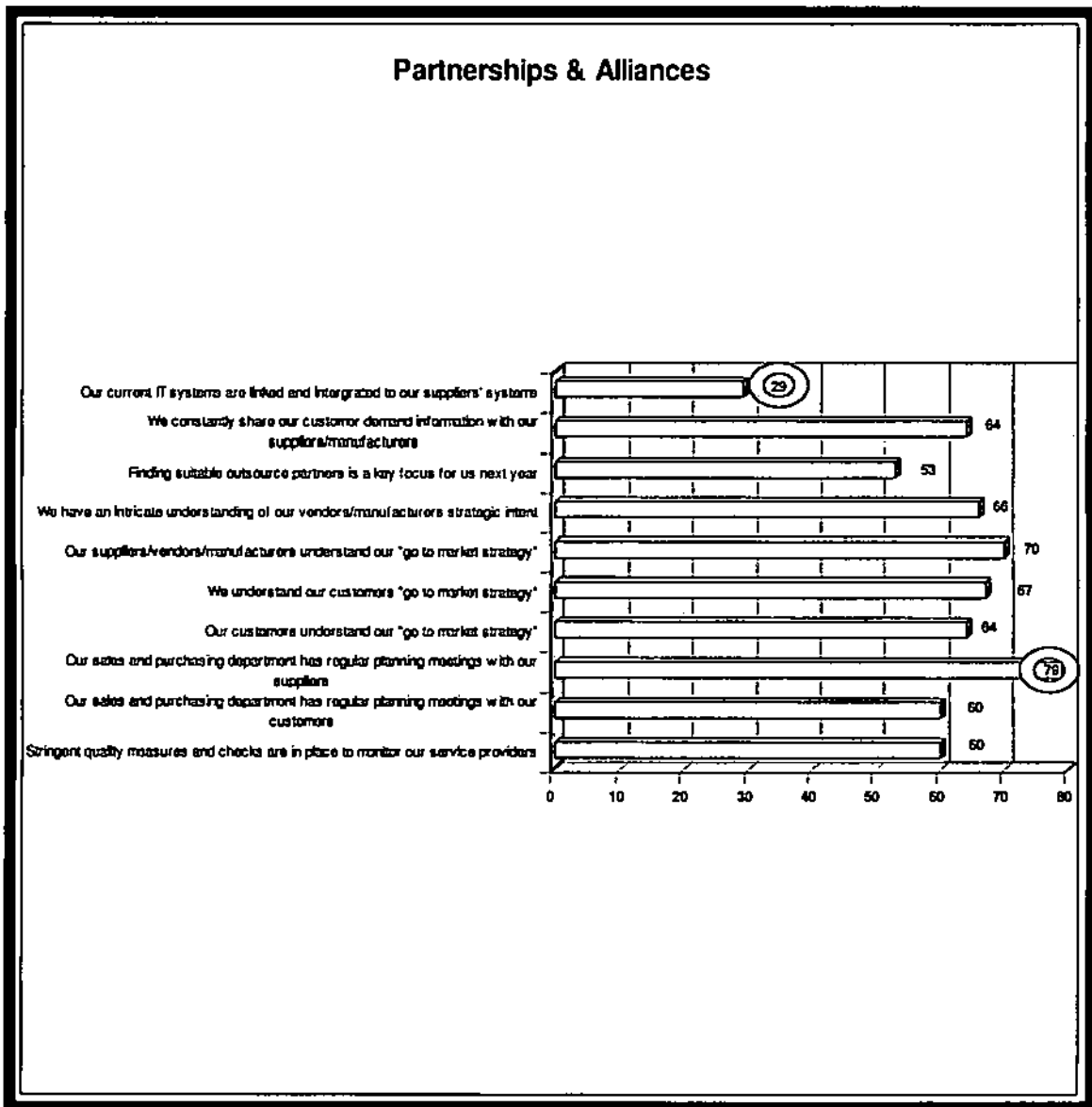


Contrary to the view that forecasting and demand planning skills are vital for successful SCM strategy implementation 45% of the target population do not have regular planning sessions between their purchasing and logistics departments which reveals that forward planning is still contentious issue as the pattern of answers shows that strain is placed on many organisation in terms of demand planning and forecasting but actual implementation of how this should be done in the industry is still an unanswered question. The notion of looking at historical sales only to assist with forecasting is now proving to be redundant with the advent of vendor product proliferation.

5.6 Objective 3 – Results discussion – Partnerships & Alliances

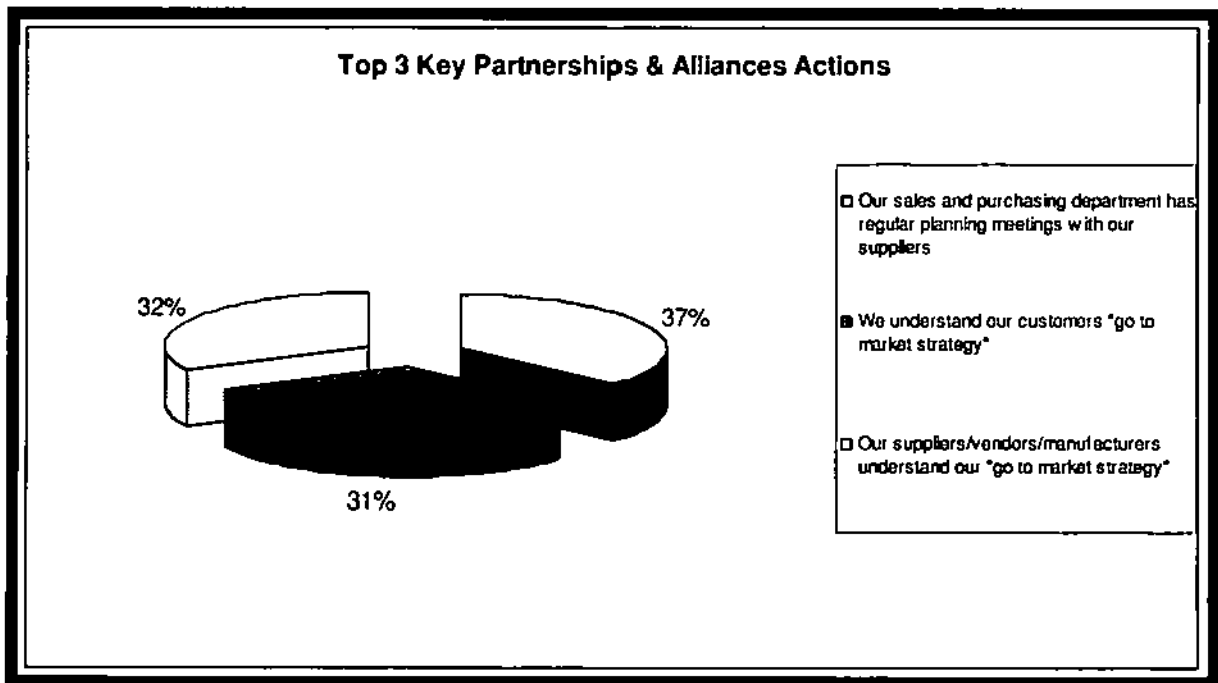
The key finding highlighted shows that 87% of the target population says that their procurement departments have regular planning sessions and share information with their suppliers, however only 32% of them have integrated, linked systems with their suppliers which means that the process of information sharing still remains very manual.

Fig. 5.12 Key Partnerships Interactions Revealed



To create effective supply chain networks and in order to reduce costs in the supply chain, increased collaborative actions are needed. The prominent partnership and alliances actions revealed by this study clearly show that a deeper understanding of customer and vendor requirements and offering is vital for any successful SCM action.

Fig. 5.13 Top 3 Key Partnerships Interactions Revealed



5.7 Summary – Part 1

This section of the research results discussion on the online questionnaire responses illustrates the challenges facing the IT printer and consumables industry. Cost challenges, strategy and skills development and collaborative partnerships are some of the key factors highlighted as issues in need of attention.

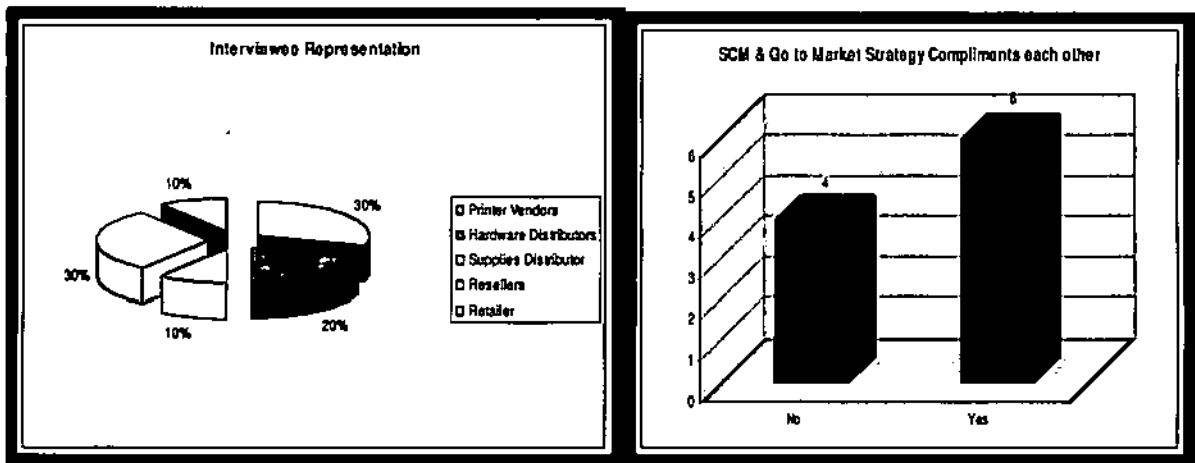
Part 2

5.8 Semi Structure Interview Results Discussion

This part of the research results derived from the 10 interviews conducted with industry leaders from various job profiles. A semi structured interview list of questions was compiled and the same questions were asked of the entire target population with minor adjustments to address their specific section of the market. Fig. 5.14 below indicates the % representation from each sector.

Fig. 5.14 Interviewee Representation

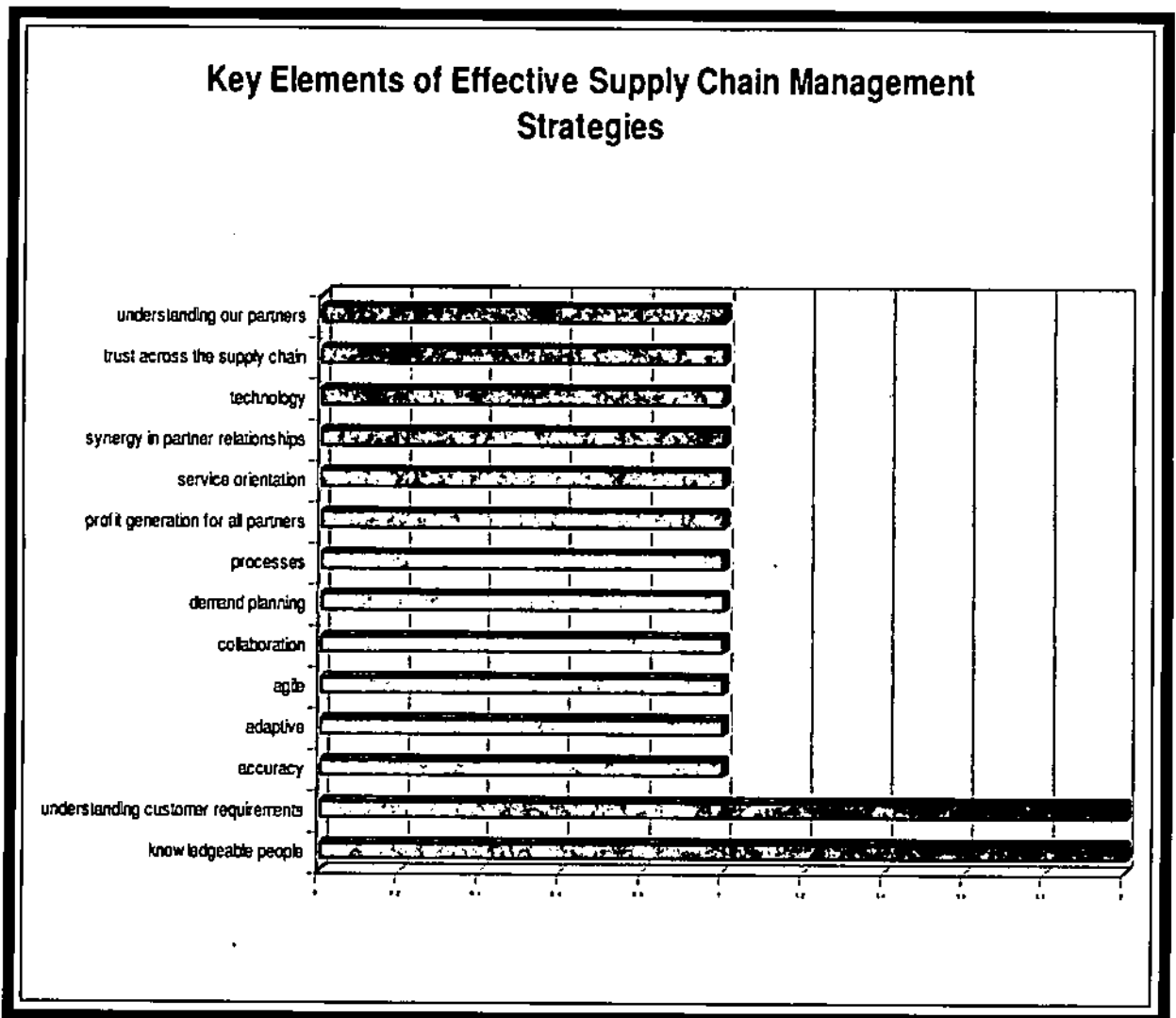
Fig. 5.15 SCM & Go to Market Strategies



60% of the population, indicated in fig. 5.15 above is of the opinion that their supply chain management strategies compliment and reflect their “go to market” strategies.

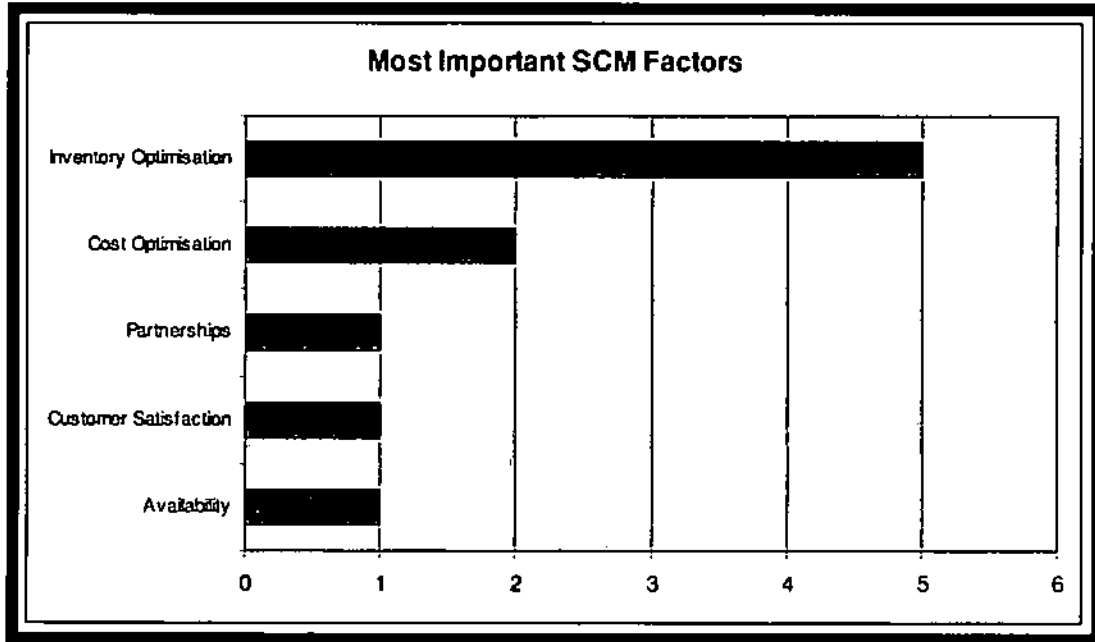
The 10 industry leaders across the sector indicated that key to any SCM strategy is first and foremost the need to have an understanding of customer requirements and then to have knowledgeable staff to offer and consult with customers. Other elements according to the interviewees include the ability to be agile, adaptive and accurate which will lead to enhanced service delivery. Trusted partnerships and collaboration also featured as important nuances for effective supply chain management.

Fig. 5.16 Key Elements of Effective SCM Strategies identified



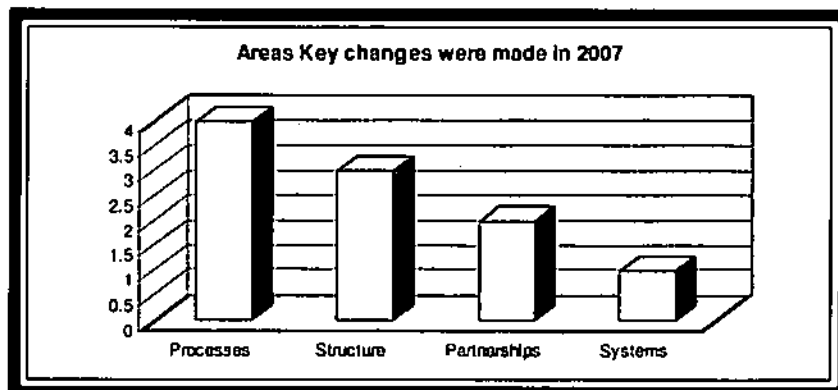
The target population of interviewees highlighted the following key supply chain management factors as shown in fig. 5.17 below as areas of focus for them in the supply chain in the next year.

Fig. 5.17 Most important SCM Factors



Change is constant and when asked what key changes were embarked on by the industry leaders in the past year (2007), the following areas were revealed.

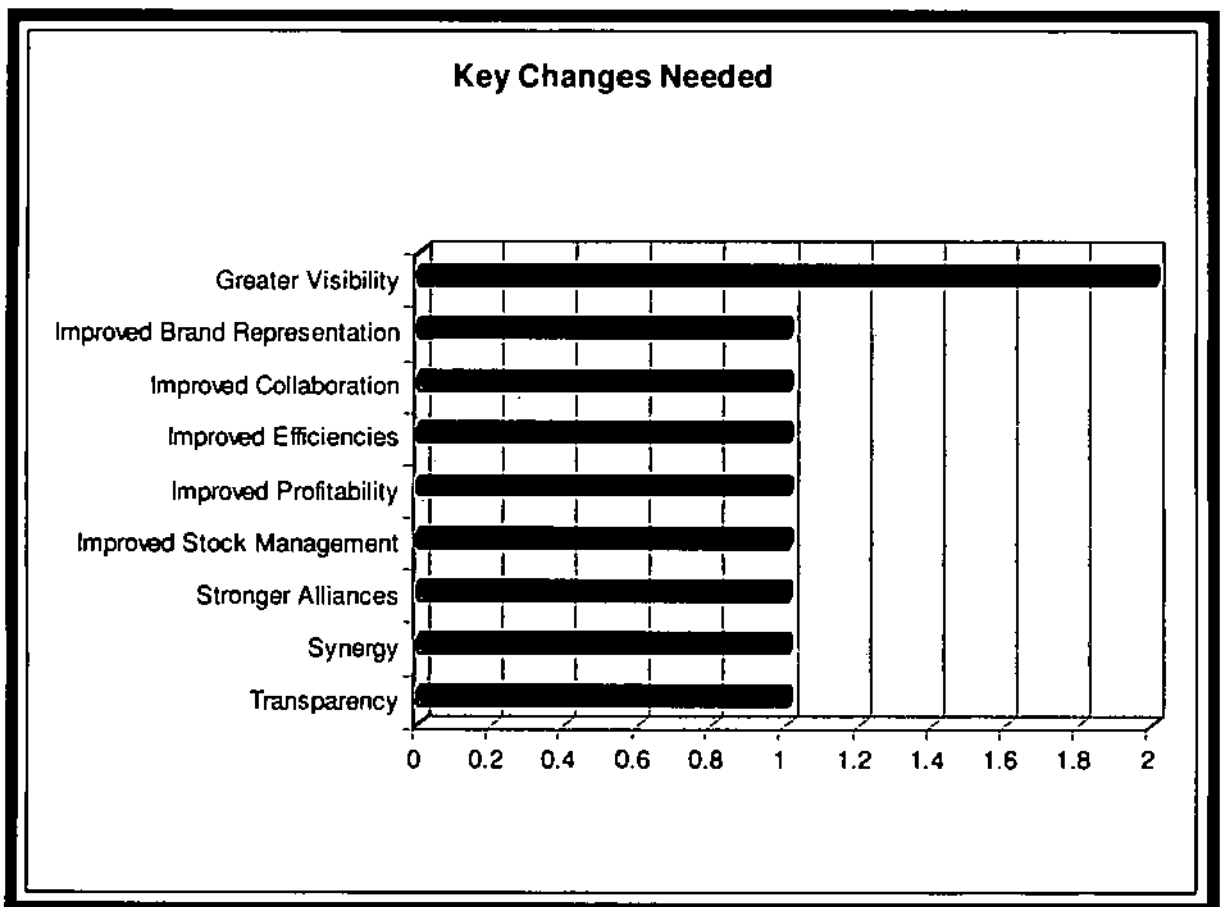
Fig. 5.18 Areas wherein recent changes were made



The changes included changing processes to enhance service delivery, changing organizational structure and presence to offer better value to customers, collaborating closer with key partners to improve efficiencies and upgrading or enhancing I.T. systems for better visibility in the supply chain.

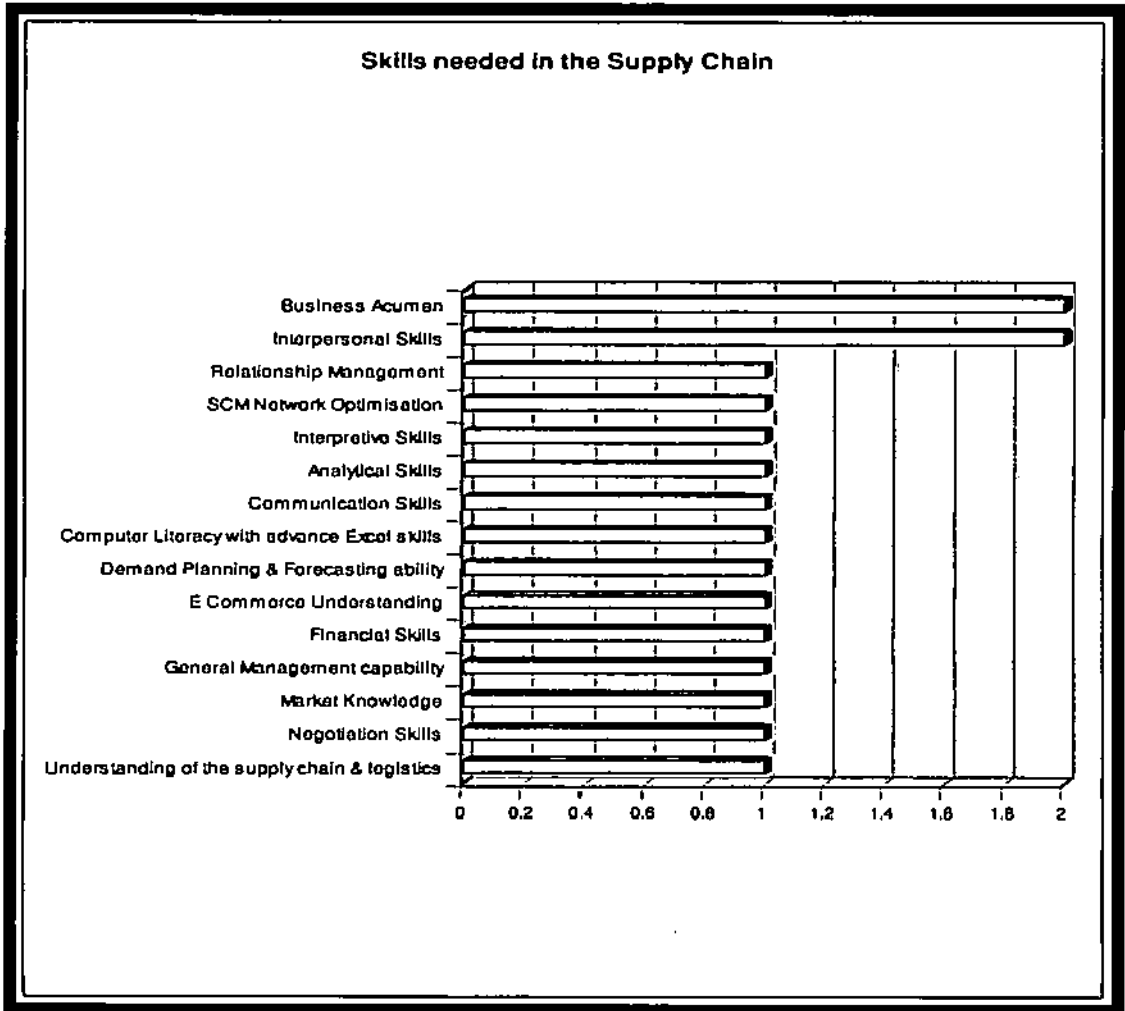
The biggest challenge which presented itself in need of addressing by the respondents is the need for greater visibility in the supply chain. That is from end customer requirements to manufacturer stock holding and supply patterns.

Fig. 5.19 Key changes needed in the IT Printer & Consumables Sector



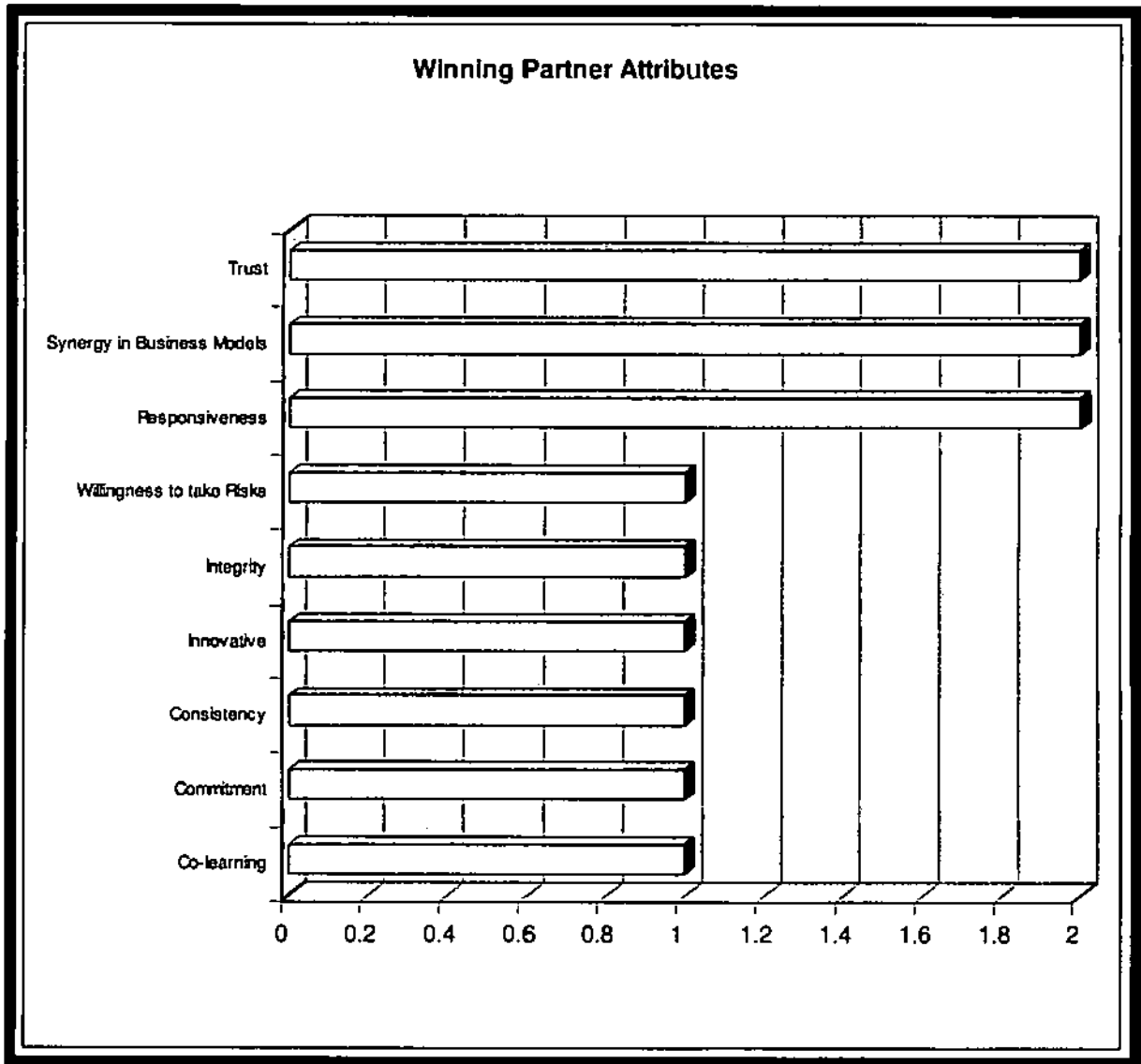
There is a notion that the need for general business acumen and knowledge exists and the interviewees believe that specialist knowledge of SCM network optimization is vital for successful SCM strategy implementation. All of this can only be done with proponents who use their interpersonal skills. They further believe that analytical and interpretive skills are crucial for more informed decision making. Should they employ people in the supply chain they will look for people who focuses on the sustainability of the business with management capability and understanding of the industry from vendor right down to the end user? An understanding of the true cost implication in the supply chain will be key with the help of financial acumen and especially spreadsheet skills of their staff. Finally, an understanding of the customer requirements is important as they believe they can not just promote SCM structures if they do not know what their customer want.

Fig. 5.20 Skills needed in the IT Printer & Consumables SCM Sector



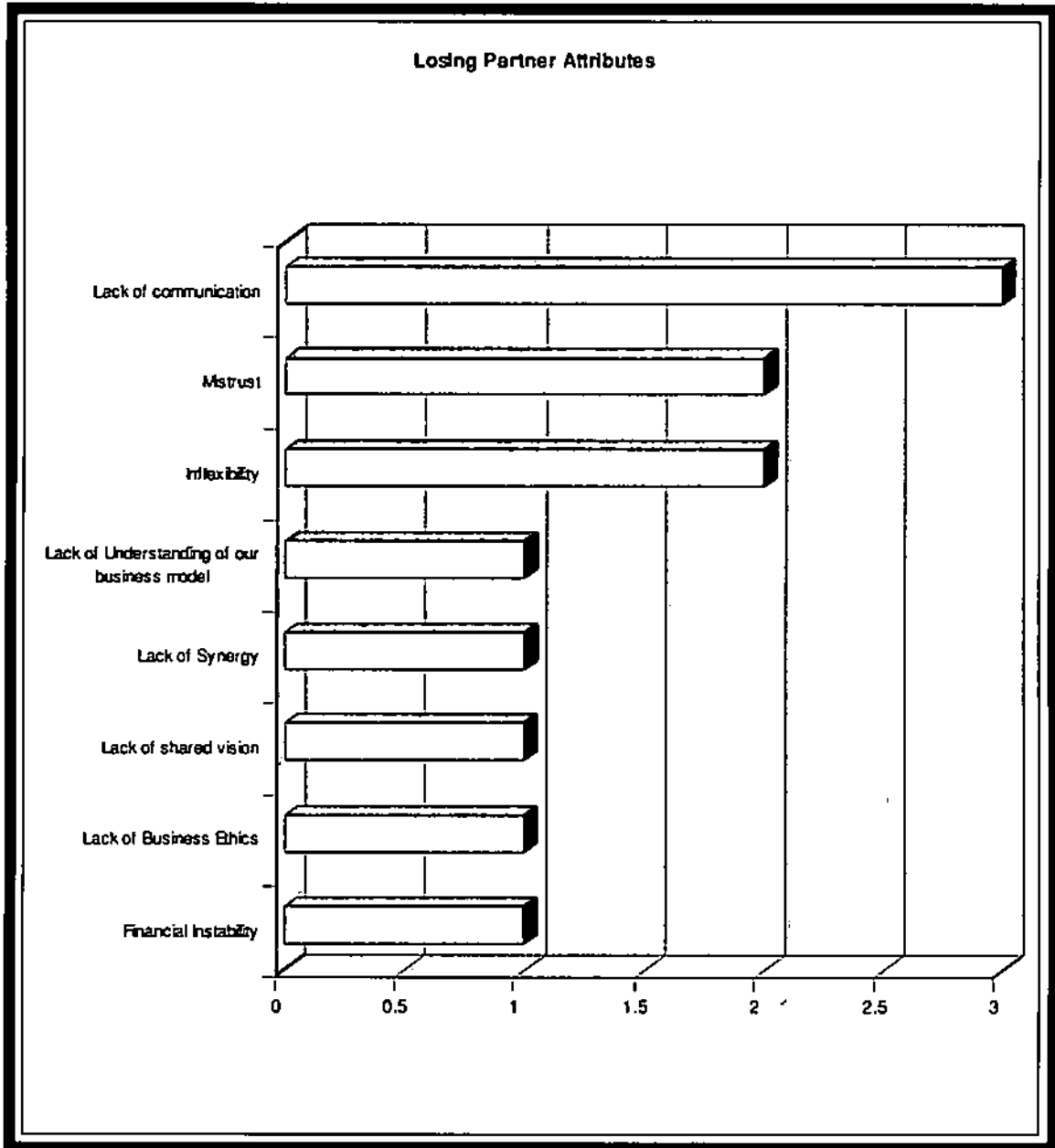
Trust was revealed at the major contributing factor for and towards successful partnerships. Most participants believe that if trust as the foundation does not exist, the relationship will not progress to find and work on synergistic visions in the channel.

Fig. 5.21 Winning Partner Attributes in the IT Printer & Consumables SCM Sector



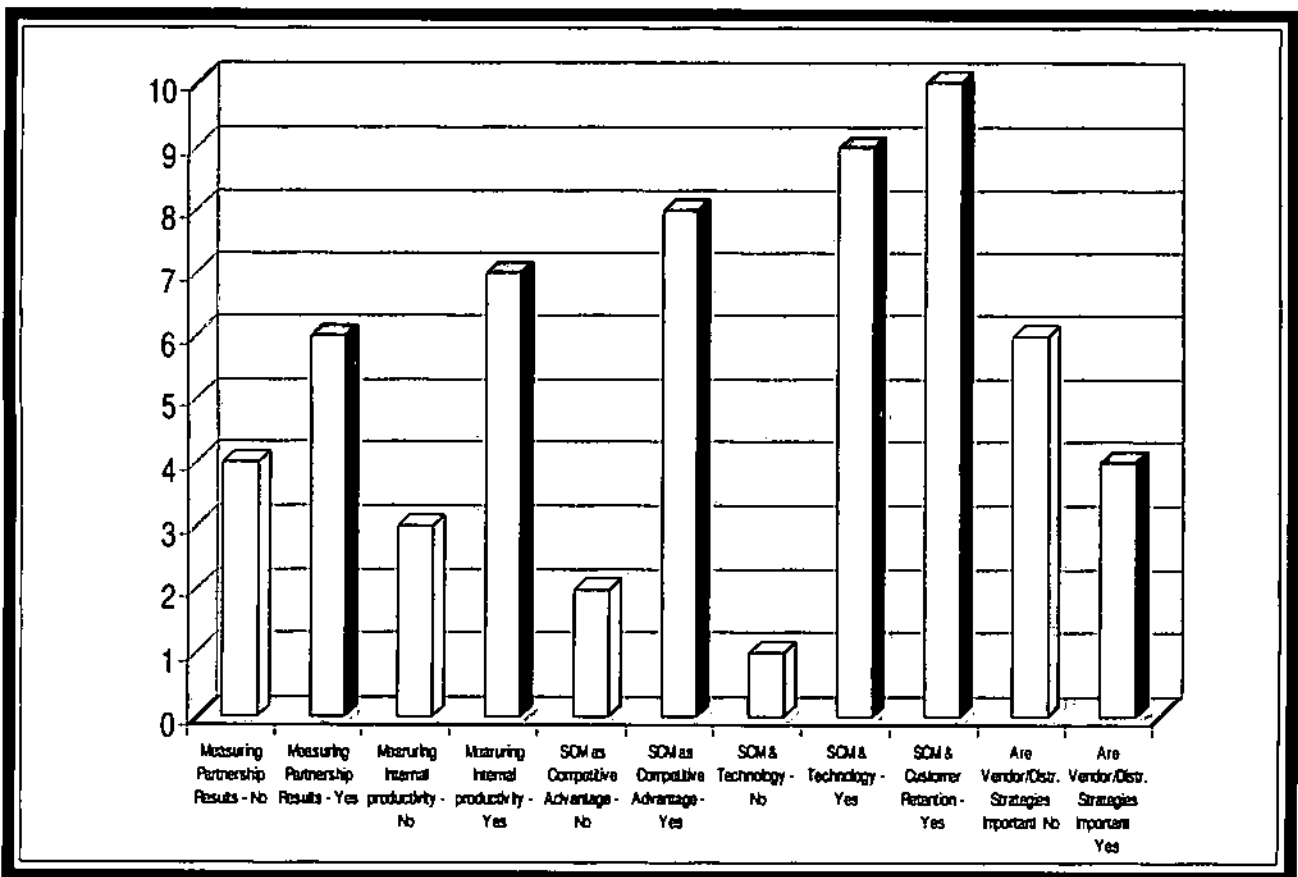
Similarly lack of communication, mistrust and inflexibility was raised as the key influences to partnership failure.

Fig. 5.22 Losing Partner attributes in the IT Printer & Consumables SCM sector



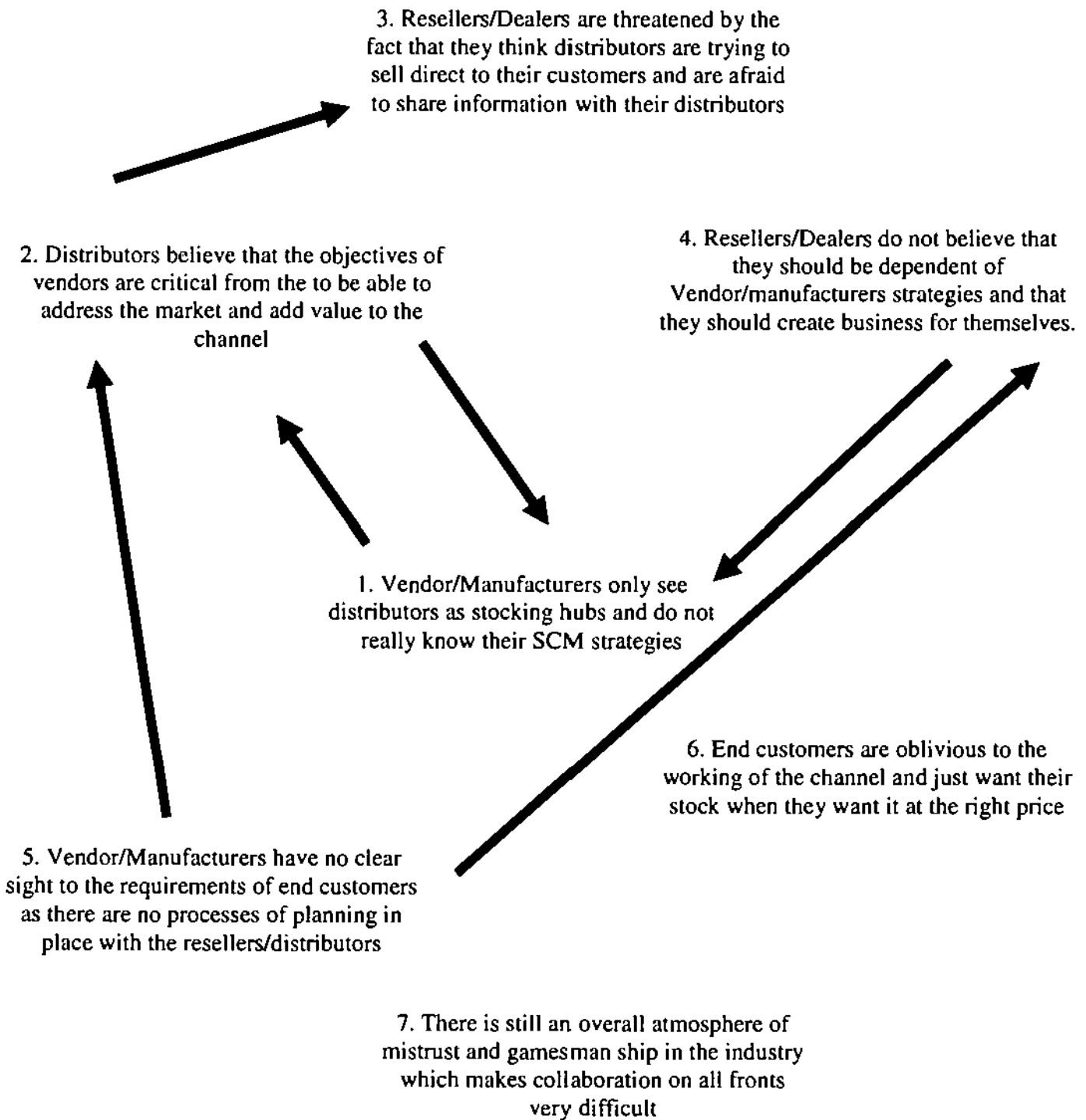
Upon asking participants whether they measure the key performance indicators of their service providers, many said yes but could not offer information of exact measurement tools. Internal productivity measurements for example the number of invoices picked, packed and dispatched by a logistics staff member or the number of orders released for invoicing by a call centre agents are also undertaken. 60% of the respondents do not view their vendor/manufacturer or wholesaler strategies as important, which leads to the question of how greater synergies can be achieved if an understanding of partner SCM strategies do not exist?

Fig. 5.23 Measurement, Competitive advantage, Technology and customer retention in the IT Printer & Consumables SCM sector



Qualitative Analysis on Interviews using cognitive mapping

(Collis & Hussey, 2005: 265)



Qualitative Analysis on Interviews using keywords and explanations

Key Dimensions of Supply Chain Management as discovered in the semi structured interviews.		
Type of Supplier	Principal Comments	Principal Expectations
Printer & Consumables Vendor/Manufacturers	Cost optimization is key in the SA contents. Understanding our distributors strategies	Visibility of product availability and flow from distributors and Logistics Partners. Fair Representation of our brands within the distribution Channel Closer relationships with Reseller channel
Distributors	To be adaptive, agile and accurate to meet customer demands. To optimize processes, people and systems to ensure sustainability. (Improved productivity)	Increased transparency across the supply chain with vendors, resellers, service providers and the end customers. Increases supply chain integration - of IT systems. A national logistics provider that can fulfill all elements of our requirements.
Value Added Reseller	Synergy in strategies with suppliers to build long term partnerships	Change the necessity for us to have to maintain a structure to do our own logistics in order to save costs.

5.9 Summary – Part 2

This chapter clarified the views, opinions and plans of the top 10 leaders in the IT printer and consumables industry. Strategy however is not very clear at most organisations and the application of management models like Porters 5 forces model or the Resource based view could be used in the industry to understand and analyze the need for further change.

Some of the interviewees were of the opinion that supply chain management is not well defined enough in our country because we were in isolation for so long. They believe that the market is in a state of flux and that the market is changing but the channel is not adapting quick enough which can make this sector and the country uncompetitive. They advise that the sector must not be complacent and satisfied with the way things are currently done. The perception still remains that delivery is a “free” service and until the channel understands that there is a cost to this service, the cost will always be built in somewhere else. They assert that as supply chain South Africa, from a distribution perspective, in the IT printer and consumables sector we are one of the very few countries in the world that do not charge for deliveries/freight and yet we have the most expensive logistical infrastructure requirements. Some of the costs include insurance, delivery and security. The perception is that the resellers or dealers do not see delivery as a value add which makes it difficult for them to understand why they have to pay for it. The industry has to start communicating the costs involved in the supply chain in order to gain support and should the battle be won, costs has to be disclosed separately in order for the end user to understand the cost implications of shipping around the country. It will take time to change the resellers/dealers and end users’ mind-set but we will get there if trends from Europe are accepted here.

CHAPTER 6

6. Conclusions & Recommendations

6.1 Introduction

6.2 Conclusions

6.3 Recommendations

6.4 Summary

6.1 Introduction

The 3 key objectives of the research dissertation remains:

- An investigation into Supply Chain Management Strategies employed in the IT printer consumables wholesale and distribution sector that provides distinctive differentiation or a competitive advantage.
- The resources and capabilities required to implement these strategies, specifically looking at skills and competency requirements.
- And the ideal characteristics of supplier, service provider and customer partnerships and alliances needed for effective collaboration in the supply chain.

The previous chapter discussed the results revealed by the research laying a foundation for the conclusion of this report. The research results proved that the IT printer and consumables channel is still very much disjointed and that most of the individual companies are solely concerned with their own business success and only a handful has a true understanding of collaborative partnerships in the supply chain. For most players supply chain management is only about transportation and logistics and a fuller understanding of the cycle of make, source, store, deliver and reverse/recycle has not taken it's full meaning yet.

6.2 Preamble to Conclusions

The fact that target population is so internally focused is a cause for concern because they seem satisfied with the status quo. Based on the research a key focus area highlighted was the “improvement of service delivery” and the question that arises is, “**How improvement of service could be achieved if the industry is not aware of best practice service offerings in other industries or areas?**” Responding organisations do not perform best practice benchmarking and a major threat to the industry players could be that global organisations enter the market with quicker, more flexible and agile supply chain networks that could be to the channel’s detriment.

In the new paradigm companies in the IT printer and consumables industry can no longer be single enterprises, but they should now become members of teams consisting of manufacturers, wholesalers, resellers, service providers and the end customers of whose roles should be symbiotic and interdependent.

New competitiveness among companies is no longer based on price only but revolves around supply chain excellence and that is, the right product delivered to the right customer at the right time. This excellence is increasingly defined by agility, an exceptional nimbleness and unparalleled ability to respond rapidly to changing market conditions with the capability to react to demand without increasing capacity or inventory. The end goal for all of this supply chain excellence is to create sustainable businesses through loyal customers because synergies in the supply chain have been obtained in order to become better trusted advisors to customers.

As per the literature review in Chapter 3, Slone, (2004), (4) argued that key to effective supply chain management is first and foremost the need to devise a sound SCM strategy that fits into the overall company's corporate strategy. The major components, he asserts, should be taking into account and understanding customer needs, trade partner priorities, benchmarking the competition and having a plan, solid and futuristic enough to build for the future. The research proves that the IT printer and consumable industry in South Africa lacks the benchmarking aspect of his recommendation and is in definite need of re-definition.

6.2.1 Conclusion - Strategies

The majority of companies interviewed or who have completed the online questionnaires believes that SCM strategies should be part of the overall company business strategy and for now it is still driven by the MD or CEO of the organisations in this industry. The silo based approach to strategies in the channel still leads to the lack of synergies and collaboration in the value chain. An operational or tactical approach to purchasing and logistics still exists in the channel and clearly defined supply chain management strategies and the adoption of true SCM approaches are hard to come by in the industry.

6.2.2 Conclusion – Skills and Competencies

Although forecasting and demand planning skills were revealed as the most important, many of the participants in the interview process were of the opinion that business acumen, relationship management, project management and analytical skills are important for effective supply chain management strategy implementation. However none of the organisations interviewed has detailed skills development plans in place for supply chain management development in their organisations.

6.2.3 Conclusion – Partnerships

Winning partner attributes included trust, synergy in business models, willingness to take risks together, co learning and the genuine need to see that partners all have sustainable businesses in the supply chain. There are very few true partnerships in the channel and the ones that do exist still have weaknesses and short comings because many of them are still new. True openness and transparency is lacking and only once partners trusts each other enough to open financial records to each other there will always be a mistrust that exists in one partner thinking the other is deriving more benefit and value from the partnership.

6.3 Preamble to Recommendations

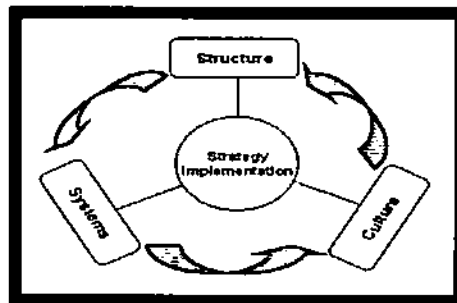
To improve the situation in the IT printer and consumables industry an urgent investment in skills development in the arts and sciences of supply chain management network optimization has to be investigated and undertaken by key players in the industry by working with the relevant SETA's and training institutes to develop learnerships. The industry will have to put their money where their mouths are if they are genuinely serious about improving supply chain management skills in the industry. The establishment of a dedicated Supply Chain Council in the IT printer and consumables industry will also bode well for the industry in order to find synergies and have a common platform to share ideas and co-learning to improve efficiencies in the channel.

6.3.1 Recommendations referring to strategies

As advocated by Slone, (2004), (4), without a focused, dedicated key individual to drive or lead a supply chain turnaround in organisations, the status quo will remain. Many MD's and CEO's have too much on their business plates and are part timing the SCM strategic function which is to the detriment of the organisation. The dedicated supply chain executive should bring cross functional and strategic synergies between the financial, operations and sales functions in the value chain to ensure that the right product is delivered to the right place at the right time and cost, with a focus on agility and adaptability while remaining lean. The four key elements to devising the ideal SCM strategy according to Slone, (2004) is, understanding customer needs, identifying partner's priorities, benchmarking the competition and building the SCM network for the future. It is recommended that organisations in the IT printer and consumables sector embrace these views if they want to build sustainability and capacity to circumvent any prospective global competitors from taking their place.

The most basic recommendation that can be made with regards to strategy in the IT printer and consumables arena is for organisation to get back to the basics of strategy implementation and that is to devise the plan (strategize), decide on the structure that will follow the strategy, ensure that it fits in with the culture of the organisation and implement systems that will be able to deliver on the strategic ideas.

Fig.6.1 Strategy Implementation Process (MBA Strategy Unit 6: 188)



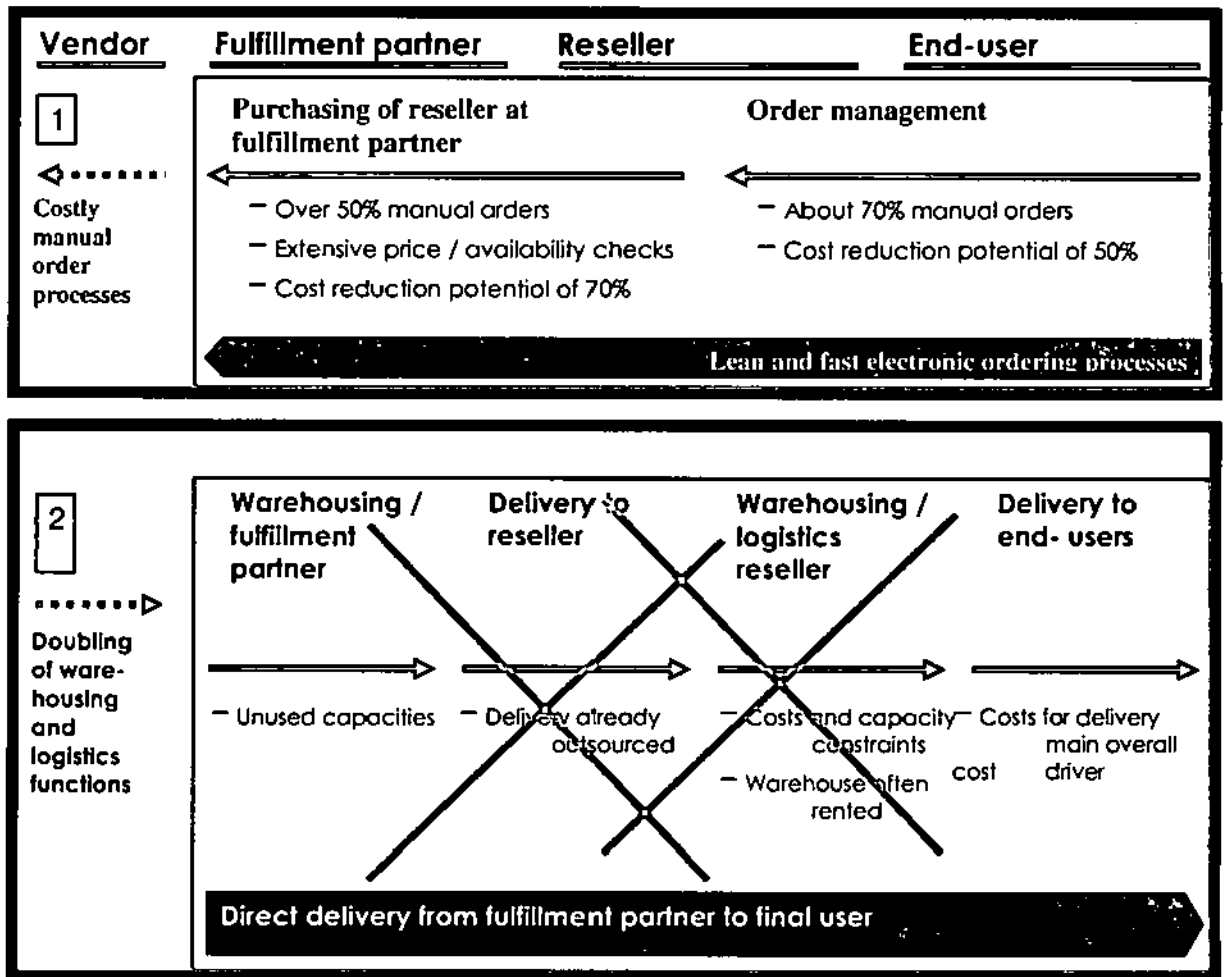
6.3.2 Recommendations referring to skills

Project management according to Slone, (2004) (4) is one of the key skills required for supply chain management staff and in his view project management's disciplined planning and execution is just as vital as ongoing operations management. The only real difference between running a project and running an operation is the due date of the deliverable. Learnerships should be developed in the channel to groom potential entrants into the unique field of supply chain management in the IT printer and consumables sector. Project management, demand planning, financial and analytical skills, relationship management and general business management skills are just some of the competencies required in the channel.

6.3.3 Recommendations referring to partnerships

There are two key levers that can boost supply chain efficiencies namely processing and warehouse and logistics costs. The manual nature of order processes in the channel currently calls for stringent automation in order to improve productivity and improve costs. Partners who go beyond order taking and fulfilling and embrace joint automation process will significantly drive cost out of the supply chain. The doubling of warehousing and logistics functions in the channel is another lever that can boost efficiency if optimized cleverly. Reseller partners who leverage of their distributors' infrastructure and logistics capabilities will ultimately improve sustainability and focus on what they are good at and that is offering sales, solutions and services to their end customers, leaving the distributors to do what they are good at.

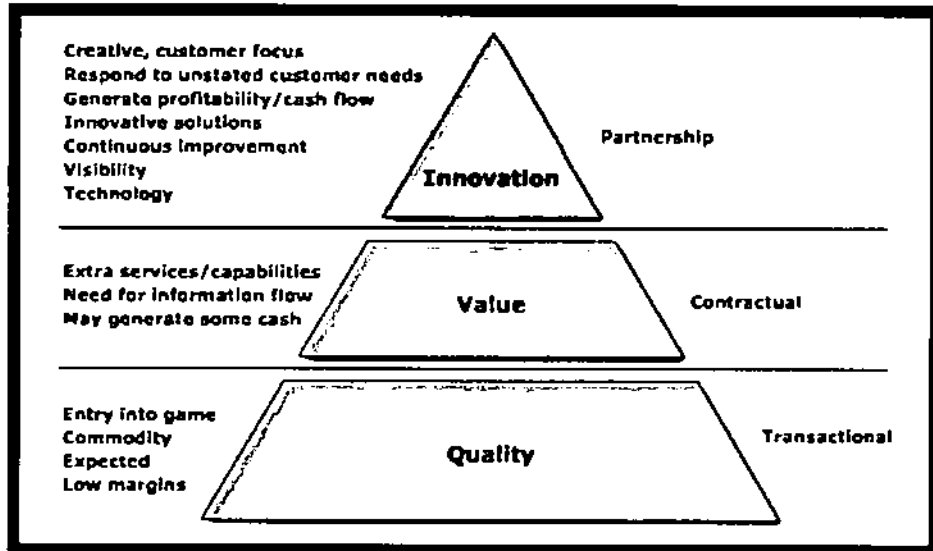
Fig.6.2 Levers to boost supply chain efficiencies (courtesy HP, 2007)



Apart from cost savings benefits, partnerships are essential for co-learning across organisations. Liker and Choi, 2005, advocate exchanging best practice ideas and setting up study groups in the industry to facilitate this co-learning. Our industry will bode well to benchmark well established and good working global partnerships to learn from them. Fig. 6.2 assimilates moving partnerships from pure transactional relationships to innovative and responsive relationships where creativity amongst organisations is shared for joint profitability. The recommendation is that partnerships should be monitored and measured for

continuous improvements and co-learning. Fig. 6.3 below confirms these recommendations where partners are encouraged to have visibility across the supply chain in order to be innovative.

Fig.6.3 From Transactional to Innovative Partnerships (courtesy I2)



Further Research Recommendations

- The availability of reliable information on how the South African IT printer consumables industry's supply chain networks compares to the rest of the South African market could be constructive for benchmarking and having a view of what improvements could be made to the channel.
- The availability of reliable information on how the South African IT printer consumables industry's supply chain networks compares to global organisations in the same sector could be constructive for benchmarking and having a view of their best practices.

- A comparison of efficiency ratio's and strategies of all distributors and resellers in the IT printer and consumables market to establish a link between differentiated strategies and efficiency could prove useful to determine if distinctive SCM strategies truly offers competitive advantage and sustainability.
- Research information on the actual size of the industry in terms of number of pages printed both on printers and copiers with the estimate coverage of these pages in order to establish the true cost of printing in the market would be fascinating and provide valuable insight to the share of market by both copier and printer companies.

Future Predictions

The competitive emergence of China and India will see an increase in products for our sector and will force companies to do things differently in order to thrive and survive. With oil prices increasing at an alarming rate, the U.S economy under tremendous pressure and instability and threats of war in Pakistan and Iran, the costs of transportation and logistics are continuously increasing. The road and rail infrastructure challenges in South Africa add to the need for suppliers to become more agile and adaptable in this changing environment.

Manufacturers/vendors will have to start changing their manufacturing capabilities to the point close to consumption and it is no different for South Africa. With the extremely long supply chain flows from all over the world for most of the printers and consumables, vendors/manufacturers will have to do cost versus volume shipment analysis in order to establish whether it will be more

viable for them to set up manufacturing plants in South or Central Africa or hubs closer to our continent in order to reduce the cost of logistics and improve stock turns for their distributors.

Key uncertainties in this industry are the tactics that major players will employ to reduce each other's market share, and the supply chain management executive of the future will have to be well equipped in change leadership, project management, teamwork, communications, relationship management, new technological advancements and globalisation and not just on the analytical part of the job, in order to survive and add value to his/her organisation.

6.4 Summary – Final Conclusion

The strategic ramification of this study and the aimed long term effect of this research, hopes to encourage organisations in the IT printer and consumables industry to communicate more by jointly find better ways to address the market to become better trusted advisors for their customers in order to build sustainable businesses and not just to be concerned with short term gains.

The implications for the industry if we do not become more agile, adaptable and efficient as channel, is that global players with better strategies, systems, structures, processes and people can enter the market and greater consolidation and competition will be the order of the day. The key to sustaining advantage in the industry is the agility of its supply chain operations. Collaboration in the supply chain is vital for increased productivity, optimized cost innovation and overarching efficiency benefits.

Strategic change to the way the printer market is addressed is vital for survival and companies who are innovative in their supply chains and sales methodologies will carve a bright sustainable future for themselves.

Supply chain excellence is currently very topical and organisations who embrace the perfect fit relationships in their supply chain networks to enhance and improve their business models will succeed. Mary Parker Follet, 1940 said. "The nut and the screw form a perfect combination, not because they are different, but because they exactly fit into each other and together can perform a function which neither could perform half or alone or any part alone".

CHAPTER 7

7. Learning and Reflection

Completing this course while balancing a full day career and coming home to being a mother and care giver at night has been rough, but extremely rewarding to say the least. The biggest lessons learnt have been perseverance, persistence, and time management, forward thinking ability and planning skills. The technical aspects of trying to acquire research skills in such a short space of time has been challenging but gratifying.

One definite highlight through this entire process has been the ability to ask questions, no matter how trivial or insignificant they may have sounded, and I have been genuinely amazed at the responses from the people around me. The leaders in the industry were amazing and very forthcoming and obliging with their views on the topic. We do have a wealth of knowledge in the top leadership of the IT printer and consumables industry and the challenge would be to tap into their collective minds to ensure successful transferal of skills to the new up and coming leaders in this field.

Personal development and marketability is important and in these changing times individuals who do not invest time and energy into improving themselves will be left behind. The learning as part of the Creativity and Innovation section of the course has assisted me to quietly empower some of our staff to take up the challenge to truly develop themselves into better informed individuals and teams for the benefit of our company.

The entire course has been such an amazing learning experience and the process has assisted in the development of my business acumen and specifically my coaching skills. Developing and improving financial acumen and understanding that it affects every aspect of the business has been enlightening and the financial strategy section of the course has assisted in becoming a more well rounded manager.

A deeper understanding of supply chain management networks has assisted me, from a sales perspective, to have a clearer knowledge of the processes, people and technology that is required in order to serve the final end customer, while at the same time maximizing profit for the organisation to be a sustainable business entity.

This process has taught me to take a longer term view on everything that I approach whether in business or in my personal life as it has highlighted that short term gains are temporal and will not be sustainable for long term survival. The notion of life long learning must be embraced in order to stay ahead of the ever changing business challenges that are continuously presented in this industry and this can only be done by constantly scanning the environment and benchmarking other industries to find new ways of improving efficiencies and effectiveness in the supply chain.

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“Nobody looks back to see what were the conditions that determined the sale”

ANNEXURE A

(Covering Letter of Invitation – Email Online Population)

Dear.....

As part of requirements in completing studies at Unisa School of Business Leadership I am required to undertake a research project and would really value your input.

Due to your stature and the respect you command from colleagues, customers, suppliers and vendors in the industry I thought it fitting to approach you for your honest opinion on the research topic: *“Investigating the constructs of effective supply chain management practices in the IT printer and consumables industry”*.

In order to derive value for my dissertation, I am required to distribute a questionnaire to population from our industry. This part of the research has to be completed by the 15th of August 2007. Please will you be so kind visit the below link and complete the questionnaire. It will only take about 5 to 10 minutes of your time.

<http://www.shirlinia.co.za/html/shirliniaq.htm>

Anonymity and confidentiality is guaranteed as this research is for academic purposes only and is conducted via the web, so no reference to your email or company name can be made.

Many thanks in advance for your anticipated participation.

Best Regards
Shirlinia Jacobs

ANNEXURE B

(Covering letter of invitation for interview participation)

Dr. Shirlinia Jacobs, 110, University of South Africa, Pretoria

3 August 2007

Attention:
CEO
COMPANY

Dear

I am currently completing studies at Unisa School of Business Leadership and would really value your input in the research project that I am undertaking.

In order to derive value for my dissertation, I am required to **interview** leading population from our industry. This part of the research has to be completed by the end of August 2007.

Due to your stature and the respect you command from colleagues, customers, suppliers and vendors in the industry I thought it fitting to approach you for a one on one interview to gather information and your opinion on the research title: ***“Investigating the constructs of effective supply chain management practices in the IT printer and consumables industry”***.

Confidentiality is strictly guaranteed as this research is for academic purposes only.

Please could you kindly let me know if you are willing to participate and when it will be most convenient for me to buy you a cup of coffee?

I will need approximately 45 minutes to an hour of your time.

Your most favourable response will be highly appreciated.

Many thanks

Shirlinia Jacobs

083 267 0526

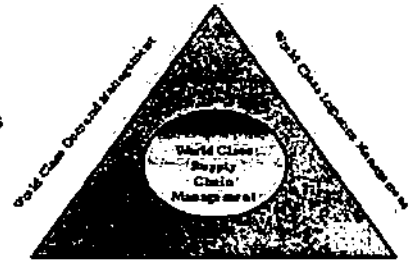
shirliniaj@act3.co.za

P.S Statistical findings of the research can be made available on request after the 19th of November.

ANNEXURE C
(Questionnaire)

RESEARCH QUESTIONNAIRE

Aim of Questionnaire: To investigate the constructs of effective supply chain management practices in the printer and consumables industry.



World Class Supply Chain Management

Logo Referenced to :
Burt, Oboler and Stirling, 2004,
7th edition of World Class Supply Management

Job title Please choose one

Focus Area Please choose one

Please select your area of business

Please tick the appropriate box

	Yes	No	Not Applicable
We make use of the services of a supply chain executive in our local organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have a supply chain executive in our global organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have a dedicated team of Supply Chain Specialists in our organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have a documented supply chain management strategy in our organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We outsource our logistics to a contracted logistics services partner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We perform our own logistics and delivery services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please select the statement which strongly applies to your organisation

	Strongly Agree	Agree	Disagree	Strongly Disagree	Neither agree nor disagree
Our current supply chain management strategy reflects our "go to market" strategy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our sales and purchasing departments has regular planning sessions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our purchasing and logistics department has regular planning sessions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forecasting and demand planning capability is a crucial component for successful supply chain strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Certified auditing skills are constantly used in our supply chain organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our organisation employs the services of qualified forex management officials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our organisation uses the outsourced services of a qualified forex management service provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stringent quality measures and checks are in place to monitor our service providers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our sales and purchasing department has regular planning meetings with our customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our sales and purchasing department has regular planning meetings with our suppliers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our customers understand our "go to market strategy"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We understand our customers "go to market strategy"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our suppliers/vendors/manufacturers understand our "go to market strategy"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We have an intricate understanding of our vendors/manufacturers strategic intent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved stock availability in all 9 regions of SA is a key focus for us in the next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost Reduction in the supply chain is a key focus for us in the next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Improved collaboration and co-operation in the supply chain is a key focus us next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved service delivery a key focus for us in the next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supply chain management skills development is a key focus area for us in the next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finding suitable outsource partners is a key focus for us next year	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT systems integration in the supply chain is a key focus for us in the two years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our current supply chain management strategy is in need of re-definition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We continuously perform benchmarking exercises against best practice organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We constantly share our customer demand information with our suppliers/manufacturers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our current IT systems are linked and intergrated to our suppliers' systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ADDITIONAL COMMENTS:

Thank you for taking the time to complete this questionnaire
 All information will remain highly confidential and will only be used for academic purposes.
 Research findings and data analysis will be made available on request
 Anonymity guaranteed



ANNEXURE D
(Semi Structured Interview Questions)

Semi-Structured Interview Questions

Brief: To determine the constructs of effective supply chain management practices in the IT printer and consumables resale, wholesale and distribution industry to ensure sustainability, profitability and maximum shareholder value.

Explanation of Guaranteed Confidentiality: All information provided will be used for academic purposes only and individual names and company information will not be exposed.

- 1. Describe your organization's current supply chain structures and mode of operation**

- 2. Briefly describe how your organisations "go to market strategy" relates to and compliments your supply chain management strategy.**

- 3. What makes supply chain management strategy effective in your view? (Interviewer to probe extensively)**

- 4. Have you recently made any key supply chain management changes in your organisation, Briefly Explain and what are the benefits?**

5. **What would you view as the 3 most important factors in your supply chain Strategy?(Interviewer to probe extensively)**

6. **If you could change anything in your current supply chain management strategy, what would it be? (Interviewer to probe extensively)**

7. **What skills do you think are necessary for effective supply chain management strategies in the IT printer and consumables distribution industry?**

8. **Describe the attributes of ideal partnerships and alliances in the supply chain?**

9. **Describe if partnerships and alliances in the supply chain have not worked and why?**

10. **Do you or are you measuring results in these partnerships regularly and do you share the outcomes with your alliances? (How)**

11. **Do you measure your internal productivity? How**

12. In your opinion do you think that SCM strategies can provide a company with a competitive advantage against your competitors? Explain how and why?

13. In your opinion do you think technology assist in optimizing the supply, Explain how chain?

14.

15. Do you view the Vendors SCM strategies important, do you know what they are? How do you ensure your strategies compliment, are aligned and reflect their objectives?

16. How would you ensure that your SCM strategy is creating a sustainable business and maximum profits for all parties across the supply chain?

Additional comments:

.....
.....
.....
.....

ANNEXURE E
(Monie Matrix, Professor Monie Naidoo)

Investigating the constructs of effective supply chain management in the IT printer and consumables wholesale and distribution sector			
	Objective 1	Objective 2	Objective 3
Chapter 1 - Problem in Context & Problem Review	Identify optimal strategies that can provide a competitive advantage in the supply chain	Identify key skills and competencies required to implement these strategies	What partnerships and alliances are needed for effective collaboration in the supply chain?
Chapter 2 - Problem Analysis	1) Near/Far Environment, Johnson & Scholes 2) Five Forces Model, Porter 3) Strategy Process Model	1) Resource based approach to strategy analysis. Grant, 2004	1) Stakeholder analysis 3) Value Chain, Porter 4) Alliance development and management
Chapter 3 - Literature Review	Various online journals-see reference list	Various online journals-see reference list	Various online journals-see reference list
Chapter 4 - Research Design	Questionnaire - Random Simple -Industry Managers, Owners, Staff + Interview key industry leaders (purposive & simple)	Questionnaire - Random Simple -Industry Managers, Owners, Staff + Interview key industry leaders (purposive & simple)	Questionnaire - Random Simple -Industry Managers, Owners, Staff + Interview key industry leaders (purposive & simple)
Chapter 5 - Results Discussion	Qualitative and Quantitative Data reflected	Qualitative and Quantitative Data reflected	Qualitative and Quantitative Data reflected
Chapter 6 - Conclusions & Recommendations	Benchmark strategies against global best	Develop skills by starting to offer learnerships in SCM	Measure partnerships, provide visibility and transparency for joint success
Chapter 7 - Learning and Reflection	A deeper understanding of strategy, financial strategy and supply chain management from a sales perspective is crucial for effective customer service offering		

*Thank you for taking the time to peruse this document.
Trusting that you found the information to be
informative and concise*