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**E-PROCUREMENT, INTERNAL CUSTOMER SERVICE
AND EXTERNAL CUSTOMERS – A STUDY OF EFFECTS
AND INTERDEPENDENCIES**

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ABSTRACT

Rapid technological advancements have completely revolutionalised the way things are done in the business world today. Proliferation of the internet and related technologies in the 1990s made it possible for companies to do business over the internet and it became easier and faster to do business both with suppliers and customers.

With the ushering in of electronic business (e-business), many organisations including the public sector have since implemented various forms of its applications such as e-procurement, e-service, e-government and many others. As a matter of necessity organisations that want to sustain their businesses in such an environment must adapt their business strategies to meet the demands of the day and also be able to take advantage of the benefits of doing business electronically. Many such benefits have been cited which include reduction in costs, better communication among supply chain players and increased levels of productivity.

It is also important to understand how such applications as e-procurement are impacting on intra organisational systems as this is just as important as inter organisational systems such as external supply chains. Internal processes are a vital part of the supply chain and the effect of e-procurement on internal processes is vital as it has a bearing on the level of customer service within the organisation which could also have a bearing on the level of external customer service. According to Michael Porter's value chain, procurement is clearly a support function and it must add value to primary activities such as production. E-procurement therefore must create value that will be appreciated by primary activities within the organisation otherwise it is not worth undertaking. It is important for organisations to see where value can be added along the supply chain and find ways of improving on current processes in order to increase profits and decrease costs. Improvements in delivery times for example, as a result of e-procurement can add significant value to the external customer.

This thesis therefore has sought to find out the effects of e-procurement on internal customer service and also to find out if internal customer service has any effects on external customers. The results of this research are that e-procurement affects internal customer service positively and that internal customer service affects external customers. The qualitative method has been used in this research work and the works of many different authors have been drawn upon.

TABLE OF CONTENTS

CHAPTER ONE

1.0.0.0	Introduction.....	1
1.2.0.0	Problem statement.....	3
1.3.0.0	Previous studies.....	3
1.4.0.0	Objectives of the study.....	4
1.5.0.0	Research questions.....	4
	1.5.1.0 Research question 1.....	4
	1.5.2.0 Research question II.....	4
1.6.0.0	Significance of the study.....	4
1.7.0.0	Keywords.....	5
1.8.0.0	Definitions.....	5
	1.8.1.0 E-business.....	5
	1.8.2.0 Procurement.....	5
	1.8.3.0 E-procurement.....	6
	1.8.4.0 Supply chain.....	7
	1.8.5.0 Internal Customer Service.....	7
	1.8.6.0 Internal customer.....	7
	1.8.7.0 External customer.....	8
	1.8.8.0 E-commerce.....	8
	1.8.9.0 E-service	9
1.9.0.0	Organisation of the study.....	10

CHAPTER TWO

2.0.0.0	Literature review.....	11
2.1.0.0	Introduction.....	11
2.2.0.0	E-business.....	11
2.3.0.0	E-procurement.....	13
	2.3.1.0 Brief history of e-procurement.....	14
	2.3.2.0 Benefits of e-procurement.....	17

2.3.3.0	Challenges of e-procurement.....	23
2.3.4.0	E-procurement strategies.....	25
2.3.5.0	E-procurement models.....	26
2.4.0.0	Supply Chain Management and E-procurement.....	28
2.5.0.0	Value Chain.....	29
2.6.0.0	Value Networks.....	32
2.7.0.0	Internal Customer Service.....	32
2.8.0.0	E-procurement and Internal Customer Service.....	34
2.9.0.0	Future trends of e-procurement.....	36
2.10.0.0	Conclusion of literature review.....	37

CHAPTER THREE

3.0.0.0	Research methodology.....	39
3.1.0.0	Research design.....	39
3.2.0.0	Selection of sources of primary data.....	40
3.2.1.0	History/ overview of Woody Bygghandel.....	41
3.2.2.0	History/ overview of Tarkett.....	41
3.3.0.0	Data collection methods.....	42
3.4.0.0	Limitations of research.....	43

CHAPTER FOUR

4.0.0.0	Findings and data analysis.....	45
4.1.0.0	Findings.....	45
4.1.1.0	Research question I.....	45
4.1.1.1	Primary data.....	45
4.1.1.2	Secondary data.....	46
4.1.2.0	Research question II.....	50
4.1.2.1	Primary data.....	50
4.1.2.2	Secondary data.....	52
4.2.0.0	Data analysis.....	55

4.2.1.0	Research question I.....	55
4.2.1.1	Primary data.....	55
4.2.1.2	Secondary data.....	59
4.2.2.0	Research question II.....	61
4.2.2.1	Primary data.....	61
4.2.2.2	Secondary data.....	66
4.3.0.0	Summary of findings and analysis.....	68
4.3.1.0	Research question 1.....	68
4.3.2.0	Research question 11.....	70
4.4.0.0	Conclusion of findings.....	71

CHAPTER FIVE

5.0.0.0	Summary, conclusion, recommendations and areas of future research....	75
5.1.0.0	Summary.....	75
5.2.0.0	Conclusion.....	76
5.3.0.0	Recommendations.....	77
5.4.0.0	Areas of future research.....	78

CHAPTER SIX

6.0.0.0	References.....	79
6.1.0.0	Journals.....	79
6.2.0.0	Books.....	84
6.3.0.0	Website sources.....	86

APPENDIX: QUESTIONNAIRE.....	87
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LIST OF FIGURES

Figure 1	Overview of e-business.....	13
Figure 2	Evolution of e-procurement.....	16

Figure 3	Benefits of e-procurement.....	22
Figure 4	Porter’s Value Chain Model.....	30
Figure 5	Relationship between internal customer satisfaction, e-procurement compliance and procurement costs.....	35
Figure 6	E-procurement and user’s perceptions of service quality.....	49
Figure 7	Service profit chain.....	54

LIST OF TABLES

Table 1	E-procurement impact.....	18
Table 2	E-procurement performance.....	18
Table 3	E-procurement models.....	26
Table 4	Findings from Woody Bygghandel for research question I.....	46
Table 5	Findings from Woody Bygghandel for research question II.....	50
Table 6	Procurement /purchasing and other departments in Tarkett.....	51
Table 7	Internal service quality ratings.....	53
Table 8	Analysis of findings from Woody Bygghandel for research question I.....	55
Table 9	Effects of e-procurement on Internal Customer Service (Croom, Johnston, 2003).....	59
Table 10	Effects of e-procurement on Internal Customer Service (Croom, Johnston, 2006).....	60
Table 11	Analysis of findings from Woody Bygghandel for research question II... 	62
Table 12	Effects of business system on external customers in Tarkett.....	65
Table 13	Purchasing’s service quality level to other departments.....	66
Table 14	Purchasing’s internal suppliers’ service quality level.....	67
Table 15	Summary of research question I findings.....	68
Table 16	Summary of research question II findings.....	70

CHAPTER ONE

1.0.0.0 INTRODUCTION

In today's world, E-business has become part and parcel of everyday life in many business circles as a large number of organisations are involved in one form of e-business or another such as e-procurement. The effect of e-business and in particular e-procurement on internal customer service is being addressed in this study because e-business and internal customer service are all important issues in today's globalised world which is characterised by stiff competition among organisations. Research by Mahadevan (2000) suggest that e-business activities bring three types of benefits to the organization: value benefits (perceived by both buyers and sellers as a result of reduced search and costs), revenue benefits (allowing the organization to exploit new opportunities such as disintermediation, free service, etc.), and logistics benefits (finding the proper position in a supply chain).

Procurement is an important part of the supply chain and does not only affect external stakeholders but also internal stakeholders. This entails that it has potential to add value not only to the external side of the supply chain but also to the internal supply chain. The electronic application of procurement (e-procurement) has had many benefits to organisations such as cost savings and profits (Systems Union, 2006). It thus makes it an important area of study and this particular study addresses how e-procurement is affecting internal customers in organisations and goes further to determine how external customers are affected by Internal Customer Service. Internal customers refer to departments and individuals who are supplied with goods and service by other departments and individuals within the same organisation. This study is particularly concerned about goods and services supplied to other departments and individuals by the procurement department who inevitably are part of the internal value chain. Although procurement is a secondary activity in the value chain (Recklies, 2001), it has a lot of potential for value adding.

Internal customers play an important role in organisations, for example procurement is an important department in many organisations and in many cases, the service level that the final customer gets who is the reason for the organisation's existence, depends to a very large extent on the operations of the procurement department and the type of materials procured.

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

For example, Slack et al (2001) argues that “every part of an organisation contributes to external customer satisfaction by satisfying its own internal customers.” This entails that whatever the effects of e-procurement on the procurement department will inevitably affect other departments because they rely on procurement to bring in materials at the right time, price, quality, quantity and from the right source which are used to produce goods for the end customer. If for example, important components do not arrive in time, production will be late, and the sales and marketing department may not live up to their promises to deliver to the customer as anticipated. This therefore implies that the entire supply chain which encompasses both the internal and external supply chains must be properly managed and coordinated as provision of goods and services to the final customer is wholly dependent on the efficiency and effectiveness of the entire supply chain.

Consequently, this brings in the concept of internal customer service in the sense that other departments are served by the procurement department in order for them to provide goods and services for the end customer who is the external customer. Recognising the importance of the internal customer is not new and is very important. If poor internal service exists, then the final service to the external customer will be diminished (O’Riordan, Humphreys, 2003).

Given the highly competitive environment due to factors such as globalisation and technological advancements, it has become inevitable for companies to implement systems of doing things in a much more efficient, effective, easier and faster way. E-procurement is certainly a way of using the internet to achieve these objectives and its effect on the procurement department would be a good indicator of how other departments are being affected. Further, there has been an increasing emphasis on Supply Chain Management (SCM) which is creating a greater focus on the supply management link in the supply chain. This focus will continue to grow as firms continue to adapt e-procurement strategies in order to take advantage of the internet (Presutti Jr., 2003).

The study is focussing on the impact of e-procurement on organisations’ internal customers. There are some reasons why e-procurement has been selected as a topic for research in this study as follows:

- Unlike other functions such as marketing, the role of procurement has often been down played in many organisations. It is often held in low regard by its internal customers who see the function as bureaucratic, difficult to deal with, sometimes

remote and delivering poor service (Nolan 1999). Senior Managers too, often see it as a problem area where there is low compliance with internal customers either abusing or circumventing the systems (Croom, 2000; Gebauer and Seveg, 2001).

- The purchasing and supply (procurement) activity is one which spans both internal and B2B services. This is an important activity found in all organisations, public, private, governmental and charities. It can also be responsible for a large amount of spending and regarded as an activity where there is unnecessary paperwork, material costs and errors (Croom, Johnston, 2003). For example, many organisations spend at least one third of their turnover/income on the purchase of goods and services (Zenz and Thompson, 1994; Killen and Kamauff, 1995).

From the above, it can be seen that procurement is an important function which affects the organisation's budget. It is for this reason that this study will focus on the effects of e-procurement on the internal customers who are also important elements of the entire supply and value chains and also on how external customers are affected by Internal Customer Service.

1.2.0.0 PROBLEM STATEMENT

E-business has changed the way business is done as more and more businesses see the benefits of its various applications such as for example, e-procurement. In many organisations timely acquisition of materials and components is critical and e-procurement may play a vital role in ensuring efficiency and effectiveness. Availability of materials also affects Internal Customer Service as well as external customers

It is therefore of uttermost importance to find out the interdependence of e-procurement, Internal Customer Service and external customers.

1.3.0.0 PREVIOUS STUDIES

A lot of literature has affirmed the importance of e-procurement and Internal Customer Service although little research has been done on the effects of e-procurement on Internal

Customer Service and how Internal Customer Service in turn affects external customers. Researchers such as Croom, Johnston (2003, 2006) and a few others have addressed some areas of this topic. This study therefore is undertaken in order to add something new to existing knowledge in the globalised world of today.

1.4.0.0 OBJECTIVES OF THE STUDY

1.4.1.0 To find out the effects of e-procurement on internal customer service

1.4.2.0 To find out the effects of internal customer service on external customers

1.5.0.0 RESEARCH QUESTIONS

In accordance with the objective of the study, the following research questions are posed to guide this research.

1.5.1.0 Research question I

Does e-procurement have any effects on Internal Customer Service?

1.5.2.0 Research question II

Does Internal Customer Service have any effects on external customers?

1.6.0.0 SIGNIFICANCE OF THE STUDY

Understanding the importance of e-business in today's business environment has meant that companies must be encouraged to invest in e-business and its applications such as e-procurement. This study is important because it is trying to address the contribution of e-procurement on internal customer service. Internal customers are important part of the supply chain and they have great influence on the external customers and therefore the overall organisation's success. If it is found that e-procurement has significant positive effects on internal customers which are passed on to external customers, then many firms including the small upcoming firms should be encouraged to implement and invest in e-procurement.

Further, if the procurement department has had significant effects on other departments as a result of e-procurement, then e-procurement affects Internal Customer Service. This therefore entails that e-procurement can be used as a source of competitive advantage if it affects organisations positively. Organisations should then try to invest much more in e-procurement to get even better results. Other companies that have not implemented e-procurement should also be able to see the benefits and implement it so as not to be at a disadvantage with their competitors.

1.7.0.0 KEY WORDS

E-business, E-procurement, Supply Chain, Internal Customer Service, Procurement, Internal Customer, External customer.

1.8.0.0 DEFINITIONS

There are many different definitions that exist in the literature for our key words and we shall endeavour to put down those that we feel are suitable for our study. Some key words may have more than one definition. This is in order to give the reader a clear background of what we are focussing on.

1.8.1.0 E –Business

1.8.1.1 Chaffey (2004) defines e-business as all electronically mediated information exchanges, both within an organization and with external stakeholders supporting the range of business processes.

1.8.1.2 DTI (2000) defines e-business as follows: when a business has fully integrated information and communication technologies (ICTs) into its operations, potentially redesigning its business processes around ICT or completely reinventing its business model...e-business is understood to be the integration of all these activities with the internal process of a business through ICT

1.8.2.0 Procurement

1.8.2.1 Procurement is usually responsible for the identification of (internal) customer's needs, translation of those needs into specifications, management of the delivery of goods and services and an assessment of the internal customer satisfaction

with those goods and services. The other elements of the process involve communication with the suppliers, requests for tenders, price negotiation, ordering, receipt and invoicing (Croom, Johnston, 2003).

1.8.3.0 E-procurement

1.8.3.1 E-procurement is simply aspects of the procurement function support by various forms of electronic communication (Knudsen 2002) and its use in both the public and private sectors takes many forms including:

- Electronic Data Interchange – inter-organisational information system using structured data exchange protocols often through value added networks.
- e- MRO- Mechanism for ordering indirect items from an on-line catalogue
- Enterprise resource planning- automation of procurement related workflows including auto-faxing, auto-emailing or other forms of messaging directly with suppliers
- Web-based enterprise resource planning- automated procurement workflows but web based
- e-sourcing - way of identifying new sources of supply using internet technologies
- e-tendering - the process of inviting offers from suppliers and receiving their responses electronically
- e-reverse auctioning - using internet technologies bidders usually bid down the price of their offers against those of other bidders until no further down-ward bids are received
- e-auction for disposals - using internet technologies for on-line auctions of items for disposal
- e-informing - use of internet technologies for gathering and distributing procurement related information
- e-collaboration - collaborative procurement related planning and design using facilitating technologies

1.8.3.2 E-procurement can be defined as the use of the internet by organisations to procure or purchase goods and services, advertise their needs, select vendors, manage services, organise fulfilment of contracts and effect payments (Toland, 2006).

1.8.3.3 Chaffey (2004) defines e-procurement as the electronic integration and management of all procurement activities including purchase request, authorisation, ordering, delivery and payment between a purchaser and a supplier.

1.8.4.0 Supply Chain

1.8.4.1 Supply Chain “encompasses all activities associated with the flow and transformation of goods from the raw materials stage through to the end user, as well as associated information flows. Supply Chain Management is the integration of these activities through improved supply chain relationships to achieve sustainable competitive advantage” (Presutti Jr., 2003). These flows have to be coordinated both within and among companies.

1.8.5.0 Internal Customer Service

1.8.5.1 Internal customer services are understood as covering those services provided by distinctive organisational units/sections, or the people working therein, to other units/sections or individuals within the same organisation (O’Riordan, Humphreys, 2003)

1.8.5.2 Internal customer service is service directed towards others within the organisation. (Miller, 2006) defines internal customer service as: service provided to fellow employees and other departments within our own organizations, as well as our suppliers and anyone else with whom we work to get our jobs done.

1.8.6.0 Internal customer

1.8.6.1 Gremler (1995) defines an internal customer as anyone in an organization who is supplied with products or services by others in the organization. That is, the employees of an organization can be considered as internal customers who, like external customers, are looking to get their needs satisfied

1.8.6.2 “An internal customer can be a co-worker, another department, or a distributor who depends upon us to provide products or services which in turn are utilized to create a deliverable for the external customer” (Earl, 2006).

1.8.7.0 External customer

1.8.7.1 External customers are those outside the company to whom products and services are provided on behalf of the company (Beazley, Harden, Boenisch, 2002)

We have also found it needful to offer some definitions below although they are not part of our key words. This is to enable our readership to have a better understanding of the electronic world that is shaping business activities today.

1.8.8.0 E-commerce

1.8.8.1 E- commerce is often thought simply to refer to buying and selling using the internet. But it involves much more than electronically mediated financial transactions between organisations and customers. Many commentators refer to e-commerce as all electronically mediated transactions between an organization and any third party it deals with. By his definition, non financial transactions such as customer request for further information would also be considered to be part of e-commerce (Chaffey, 2004). Kalakota and Whinston (1997) refer to a range of different perspectives for e-commerce:

- A communication perspective – the delivery of information, products/ services or payment by electronic means.
- A business process perspective - the application of technology towards the automation of business transactions and work flows.
- A service perspective – enabling cost cutting at the same time as increasing the speed and quality of service delivery.
- An online perspective – the buying and selling of products and information online.

1.8.8.2 Garrett and Skevington (1999) define e-commerce as “trading by means of new communication technology. It includes all aspects of trading, including commercial market making, ordering, supply chain management, and the transfer of money.” They have taken ‘New communication technology’ in the definition to mean everything beyond voice telephony, fax and telex, which have been around for many years. It is the new technologies of the Internet, together with the prodigious advances in IT generally, that have enabled revolutionary changes in the way trade is done.

Generally e-commerce is considered as a subset of e-business (Chaffey, 2004). The two terms however are often used interchangeably and for the purpose of this study e-business shall be used to cover e-commerce as well.

1.8.9.0 E-service

1.8.9.1 An electronic service (e-service) can be defined as a collection of network-resident software programs that collaborate for supporting users in both accessing and selecting data and services of their interest present in a provider site. Examples of e-services are e-commerce, e-learning, and e-government applications (De Meo, Quattrone, Terracina, and Ursino, 2006).

At this stage, it is worthwhile to mention that some of the terms used are constantly changing and overlapping. E-business for example, which includes phenomena like e-procurement, e-commerce and e-service is a relatively new concept hence the many definitions that have been made of the various phenomena it encompasses. Another important point to note is that these terms are constantly being redefined as businesses evolve. On the other hand, procurement, from which e-procurement stems, is an important part of the supply chain meaning that in addressing e-procurement the supply chain inevitably comes into picture.

1.9.0.0 ORGANISATION OF THE STUDY

This thesis has been organised in six chapters.

The first chapter is the introductory part of this research and it basically deals with the background of the study, problem statement, significance of the study, objectives and definitions of keywords.

The second chapter is the literature review and has been structured in such a way to include e-business, the brief history of e-procurement, benefits and challenges, strategies and models of e-procurement, supply chain management and e-procurement, value chain, value networks, internal customer service and e-procurement and internal customer service, future trends of e-procurement and conclusion.

The third chapter is the research methodology which explains the research design that has been used, the sources of data, data collection methods and the limitations of the research.

The fourth chapter includes the findings and analysis of data.

The fifth chapter gives the summary, conclusion, recommendations and areas of future research.

The sixth chapter comprises the references that have been used for this thesis.

CHAPTER TWO

2.0.0.0 LITERATURE REVIEW

2.1.0.0 INTRODUCTION

The aim of this chapter is to try and put together what others have written about the topic that is addressed in this research work and to try and bring our own thoughts about what is found in current literature especially in relation to our topic. As expected, much literature exists about e- procurement as it is part of e-business and doing business electronically is increasingly becoming a source of competitive advantage and many large and medium sized organisations have adapted e-procurement strategies. There is also a lot of literature on internal customer service. There is also some literature available that links e-procurement and internal customer service.

In the past few decades, the business environment and especially globalization of economies has encountered a lot significant changes due to the rapid growth of technological developments which has dramatically pushed competition in most industries. As globalization increasingly permeates the world markets, competition is no longer limited to just between individual businesses, but now exists between the entire supply chains (Zhao, 2005). As a consequence, more and more companies try to use electronic means in conducting their operations primarily to remain competitive in this global world.

2.2.0.0 E-BUSINESS

In today's business world where computers and other electronic devices can easily communicate and interact with other devices over a variety of networks such as the internet developments around the internet have been profound. The e-phenomena have led to the generation of different ideas and business models in order to enhance how organisations are conducting their businesses. Buzz words such as e-business, e-commerce and e-procurement are common in contemporary times as they are adopted to streamline the traditional way of conducting business.

E-business has been seen as a major driver of the new economy and it has been accompanied with the convergence of technology and products, less predictable customer demand, shortened product life cycles and price transparency (Zhao, 2005). This has brought about a paradigm shift from a physical, supply-driven, and disconnected world to an intellectual, demand-driven, and interconnected one (Chang & Li, 2003).

A fully integrated e-business would mean automation of processes within a company and would minimise operational costs to a minimum. E-business ensures that buyers and sellers have a new and effective way of communication and gives them an opportunity to have new market places. The advent of technology and the internet has completely changed the way business is being conducted as companies continually seek for ways of serving their customers efficiently and effectively in order to provide sustainable value.

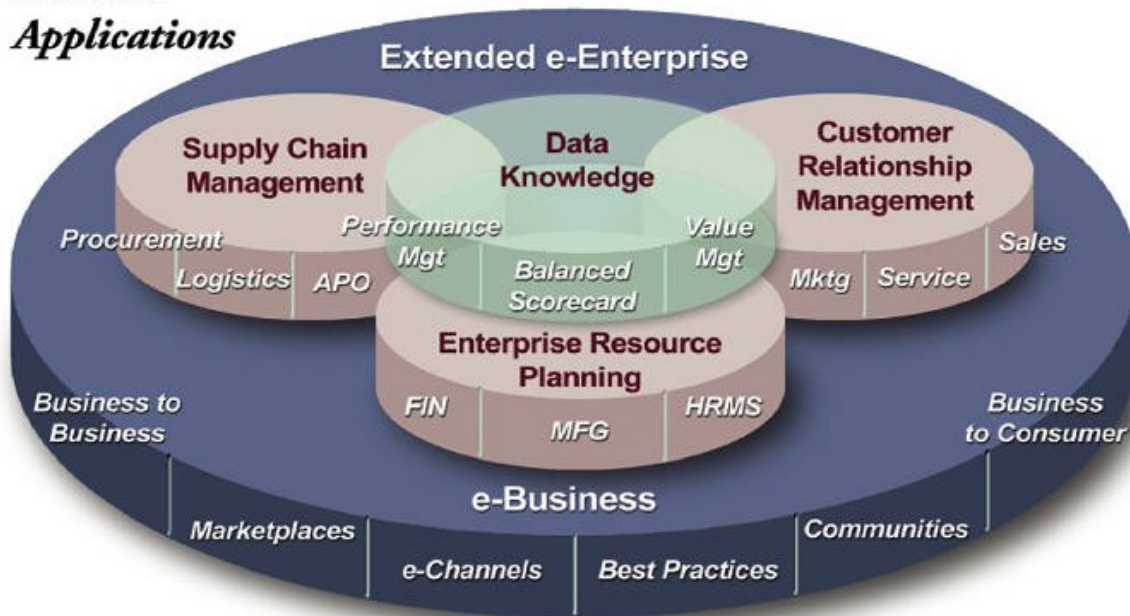
To understand e-business well, it is important to talk about electronic commerce (e-commerce) as well as the two are closely related and are often used interchangeably. Turban, (2002) defines the two terms as follows:

- E-commerce is an emerging concept that describes the process of buying, selling, or exchanging products, services and information via computer networks, including the Internet.
- E-business refers to a broader definition of E-commerce, not just the buying and selling of goods and services, but also servicing customers, collaborating with business partners, and conducting electronic transactions within an organization.

It is all about cycle time, speed, globalisation, enhanced productivity, reaching new customers and sharing knowledge across institutions for a competitive advantage. E-business has played a very important role in highlighting the importance of procurement as a strategic issue. By introducing electronic procurement (e-procurement), many benefits can be realized such as cost savings which can have a direct impact on the customer.

Figure 1: Shows an overview of e-business

**Enterprise
Business
Applications**



AberdeenGroup

Source: Dilts.

2.3.0.0 E-PROCUREMENT

E - Procurement is an important part of e- business. The mid1990s ushered in major technological advancements and many companies started to talk about Business to Business (B2B) applications and e-procurement was among the first business application areas to make use of the internet and the Wide World Web in a user friendly way. Many companies started to implement B2B strategies that would make them be part of this new business environment and be able to get some advantages of being early movers. As expected, many of them could not sustain themselves as they rushed into the e-procurement bandwagon with immature applications and without proper strategies. However, the excitement and dust over e-procurement has now settled and the value of e-procurement has increased enormously over the past decade. “Advances in e-procurement technologies coupled with complementary technologies such as sourcing and contract management have accelerated the adoption and value of e-procurement” (Aberdeen Group, May 2, 2006).

An Aberdeen report divides e-procurement technologies into three categories as follows (Hawking, Stein, 2004):

- Indirect Procurement - This includes the procurement of non-production goods and services such as office supplies, printing, advertising and casual labour;
- Direct Procurement - This includes the procurement of raw materials, parts and assemblies (ie. organisation and management of raw materials, parts and assemblies)
- Sourcing - identification, evaluation, negotiation of products and supplies for both the indirect and direct supply chain.

At this stage it is important to mention that although the terms procurement and purchasing are often used interchangeably, they are not the same. (Kalakota, Robinson, 2000) note that procurement generally has a wider meaning than purchasing. Procurement refers to activities involved with obtaining items from a supplier; this includes purchasing, but also inbound logistics such as transportation, goods-in and warehousing before the item is used. The key procurement activities include: searching and specification of product by the end user, purchasing by the buyer, payment by an account, and receipt and distribution of goods within a warehouse (Chaffey, 2004).

According to (Baily et al., 1994), e-procurement should be directed at improving performance for each of the five rights of purchasing which are sourcing items as follows:

- At the Right price
- Delivered at the Right time
- Are of the Right quality
- Of the Right quantity
- From the Right source

2.3.1.0 Brief history of e-procurement

In the last half of the twentieth century, there was a revolution in the industry as a result of the harnessed power of seemingly ever-increasing capacity, speed and functionality of computers and microprocessors (Chang, Yoon S, 2004). This trend made a way for management and

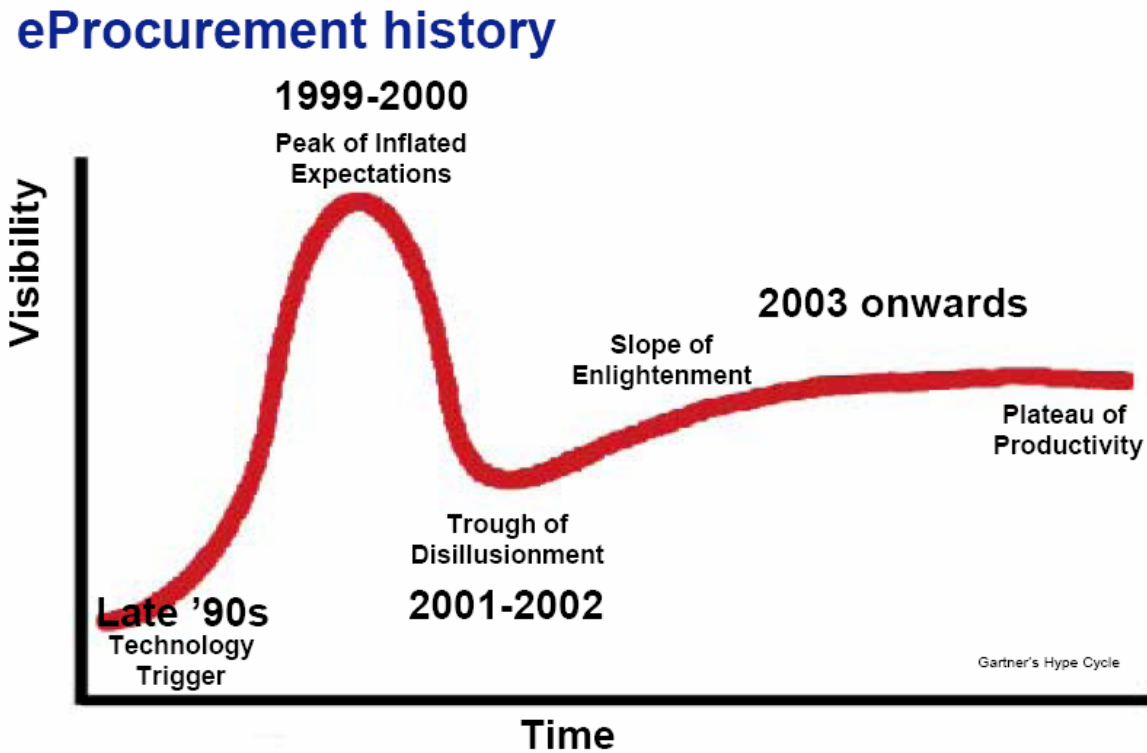
E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

workers within industries with new capabilities for management, planning and control, design, quality assurance and customer support. Structured information flow became the foundation of industrial companies. New applications, tools and information technology systems emerged and evolved to facilitate companies to integrate the various departments like Design, Procurement, Manufacturing, Sales and Finance within companies, predominantly the larger ones, including international corporations, providing opportunities for them to meet new demands for product time to market, just in time supply of orders, and customer support (Chang, Yoon S, 2004).

The earliest literature on e-procurement is that relating to electronic data interchange – a technology that has been in use in organisations since the 1960s, (Millman 1998). Most dialogue about electronic inter-organisational systems in the academic literature up until the mid 1990s involved electronic data interchange. It was not until the mid 1990s that there was a shift towards the discussion of the use of the internet for electronic commerce. In contemporary times it still stands that electronic data interchange continues to be the primary medium of electronic commerce. According to (Neef, 2001), the emergence of e-procurement is not just as an improvement of EDI technologies, but it is a way of conducting purchasing transactions over the Internet.

E-procurement effectively began in late 1990s when several startup software companies, led particularly by Ariba and Commerce One, began to develop a suite of applications that allowed vendors to create electronic catalogs (Neef, 2001). This turn of events dramatically altered the activities of purchasing and transformed the purchasing process from a tactical into a strategic activity and tried to eliminate maverick buying, or purchases that did not involve the purchasing department.

Figure 2: Shows the evolution of e-procurement.



Source: Dagg, 2005

The diagram above illustrates the fact that initially there was excitement over using electronic means to do business and e-procurement was one of the first business application areas to make use of the internet in the 1990s. Many companies wanted to be part of this technological trigger. However, the period 1999 to 2000 shows that the expectations were rather too high as a lot of companies needed to put a lot of things in place before this new technology could work well for them. This era was followed by the trough of disillusionment in the period 2001-2002 as many companies' expectations were not met. From 2003 onwards, there has been a steady appreciation of e-procurement as a lot of companies have put things in place and they have seen e-procurement work for them.

E-business has brought to the fore the importance of procurement as a strategic function since introducing e-procurement which can achieve savings and other benefits which directly impact the customer. E-procurement has been the subject of a great deal of research. Inefficient and maverick buying habits, redundant business processes are symptoms of poor procurement practices. E-procurement is not just an addition of technological aspects to traditional procurement but thus, mirror the procurement process through the provision of two

discrete, but connected infrastructures, internal processing (corporate intranet) and external communication processing (internet based platform) (Croom, Johnston, 2003).

The growing importance of e-procurement was highlighted by a Transmits (1999) report that showed that around 90% of companies said that they planned to implement an electronic management system within the next five years, with the majority identifying cost savings as their primary goal (Bocij, Chaffey, Greasley, Hickie, 1999). The adoption of electronic procurement systems is necessitated by the need to reduce costs and encourage purchases in large quantities, thereby limiting the number of contracts.

2.3.2.0 Benefits of e-procurement

The internet, via e-procurement, has made procurement more effective and efficient in the sense that purchasing of goods and services by organisations is made easier, faster and cheaper. The purpose of e-procurement is to allow the purchasing function to focus on more value adding activities such as serving customers rather than on operational issues.

The potential of e-procurement is so great that it has turned the formerly looked down upon traditional function into a competitive weapon (Presutti Jr, 2003).

E-procurement has proved to be an important application area for B2B and a lot of research work has been directed towards it. Most literature allude to the fact that many companies have found a lot of benefits from their e-procurement projects which include the following (ITRG, 2002):

- Process efficiencies amounting to annual savings.
- Ability to link directly into existing systems, such as ERP.
- Reductions seen in lead times within the procure-to-pay cycle, in some cases by 50%.
- Self-invoicing on behalf of clients can add to the bottom line.
- Month-end reconciliation can end the problem of the wrong items being ordered or the wrong price being offered as business processes have been streamlined and all are working off the same catalog.
- The buyer is engaged in more strategic product management, leading to better contracts being negotiated.

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

- Maverick spending is reduced.
- Reductions in stock levels can lead to savings of millions of dollars.

The Aberdeen group 2004 e-procurement bench mark report main finding is that despite the initial failure of e-procurement, it now offers a lot of benefits. Respondents in this study reported improvements in costs, compliance, productivity and spend under management.

Table 1: E-procurement Impact (Average Performance)

Performance Area	Before E-Pro	After E-Pro
% of spending that is off-contract ("maverick")	38%	14.2%
Price savings on maverick purchases brought into compliance	--	7.3%
Requisition-to-order cycles	20.4 days	3.8 days
Requisition-to-order costs	\$56	\$23
% of spend under management of the procurement group	56%	69%

Source: [AberdeenGroup](#), December 2004

The table above illustrates the impact of e-procurement on enterprise compliance and spend management activities. The indication is that e-procurement is consistently delivering on its initial value proposition, for example, maverick spending before e-procurement was as high as 38% but after implementation of e-procurement it dropped to 14.2%.

Note: Spend under management in this paper has been defined as the portion of corporate expenditures that are sourced and controlled by the procurement organisation.

Table 2: E-procurement Performance: 2001 vs. 2004 (Average)

Performance Area	2001	2004
Number of suppliers enabled	30	253
Number of users ²	1,000	2,309
% of users currently versus planned	12%	43.5%
Number of transactions/month ²	1,340	5,244
% of indirect spending managed via e-pro	18%	37.6%
% of services spending managed via e-pro	--	32.7%

Source: [AberdeenGroup](#), December 2004

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

The table above shows that more organisations were using e-procurement to manage more requisitions, spend categories and suppliers in 2004 than in 2001. This indicates that the use of e-procurement has been steadily increasing.

There are many benefits that accrue to organisations that have implemented e-procurement such as the following (EPIQ, 2006) <http://www.epiqtech.com/Electronic-Procurement.htm>.

- Purchases can easily be tracked as they are done over the internet
- Many companies also integrate product specifications in their e-procurement systems which makes it easier for those authorised to buy to get the right products
- Saves time as buyers simply use the internet to make orders and there is no need to make phone calls and suppliers receive the orders almost immediately and when they act on these orders, delivery is much faster than the traditional procurement methods.

Systems Union (2006) have highlighted the following benefits:

- Reduced purchasing costs by ensuring goods are bought under pre-negotiated contracts, this could be one of the most significant cost savings
- Reduction in the time that it takes to process orders
- Lower overhead costs on stationery, postage and telephones which are eliminated by automated systems.
- Efficiencies and cost savings brought about by acquiring a similar volume of goods or services with fewer staff to manage the process which allows some people to be freed from purchasing so that they concentrate their efforts other important activities within the organisation.

Eakin (2003) has defined the benefits of e-procurement under three main categories as follows:

1) Hard benefits - which are directly measurable and are required to improve direct share holder value such as price savings and process cost reductions.

2) Soft benefits – these can also be called indirect benefits and can be difficult to quantify accurately but can be good indicators of progress. Examples include individual time freed up through more efficient processes.

3) Intangibles - these are not directly measurable in financial terms. Soft benefits must not be misclassified as intangibles simply because measurement may be more difficult. Intangibles include:

- cultural change - which involves recognition of strategic sourcing as a longer-term market differentiator, end-user attitude shift, and use of implementing world wide user processes.
- e-platform - which sees e-procurement as a step towards value adding structures
- financial approval for all spending – ability to ensure that all spending meets organisation standards
- high visibility of supplier performance –“ live” feedback from end-user to buyers

Eakin (2006) further defines the benefits under five main categories:

1 Transactional benefits

E-procurement allows for payments to be done online. Typically, a web based transacting tool is used where items are selected from pre-sourced catalogs and submitted for electronic approval. There is then a link to the back end ERP system for entry, payment of invoices, and collation of management information. Huge time savings and efficiencies are realised as a result of electronic processing due to:

- global automated processes incorporating best practice and eliminating unnecessary activities
- e-enabled relationships with suppliers which speeds procurement cycle times and facilitates supplier performance improvements
- greater data accuracy which minimises ordering inaccuracies and provides the essential foundation for management through measurement and analysis.

2 Compliance benefits

In many organisations issues of compliance and maverick spending are quite significant and require attention. This usually because employees are not usually aware of the arrangements that are in place rather than the fact that they want to ignore the laid down processes and procedures. E-procurement has a way of addressing this through tools such as catalogs and standard order processing and approval catalogs. Compliance will be achieved due to:

- A simple and quick requisitioning-to-payment process including a user friendly interface and pre-sources catalogs tailored to the requirements of the individual user.
- A simple and quick strategic sourcing process with standard procurement processes and tools as well as easily accessible information.
- The e-procurement system, the only purchasing mechanism available.

3 Management Information benefits

The fact that key information such as cost center and commodity codes is hard coded against the user dramatically reduces coding errors and provides highly detailed and easily accessible data. This is very important in maximising the potential benefits of strategic sourcing. A successful e-procurement implementation will provide high quality, detailed management information and will negate the need for data warehousing or resource heavy data mining.

4. Price benefits

The ability to prove to your suppliers that you are using e-procurement as a tool to ensure end users do honour their contract status will enhance ability to negotiate down prices through :

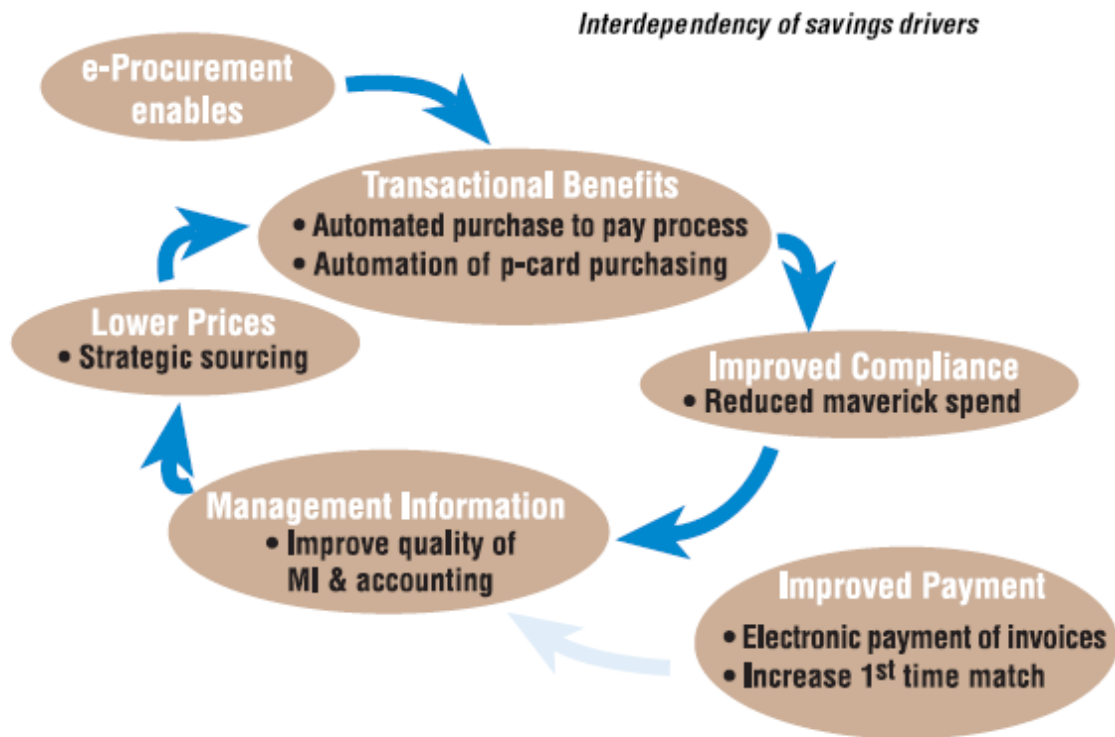
- Greater enhanced capture and therefore reliability of spending information
- Increased confidence that spending volumes can be guaranteed from increased compliance with system, thus allowing volume price breaks and discounts to be achieved.

5 Payment benefits

The successful operation of the first four benefits enables electronic payment of invoices. This includes the ability to better control the business cash flow and to manage the

efficient payment of the suppliers due to more streamlined procurement processes providing more timely and accurate information to the accounts payable department. Potential benefits include reduced manpower (a hard benefit only if improvements lead to head count reduction) and reduced spending on postage and stationery. When it comes to negotiations, procurement can guarantee the supplier a certain level of prompt payment which was not possible prior to e-procurement. In fact, e-invoicing benefits are often under-assessed and ignored.

Figure 3: Shows the benefits of e-procurement



Source: summit: Canada's magazine on public sector purchasing

The above diagram suggests that when the first four benefits are successfully managed, this enables electronic payment of invoices which helps the organisation to better control the cash flow and payments to suppliers are efficiently managed.

2.3.3.0 Challenges of e-procurement

A number of recent studies have also looked into difficulties faced by firms in launching e-procurement and different authors have identified many challenges and drawbacks of e-procurement as follows:

Innovation & Information Consultants, Inc Concord, MA (2004) has noted the following challenges of e-procurement especially in relation to small firms;

- Technological barriers

Technological barriers represent obstacles to the adoption of e-procurement due to technological factors such as lack of high-speed connections and software Incompatibility, forexample. Some of most frequently cited technological barriers include problems of integrating e-procurement with internal solutions and difficulties encountered in obtaining high speed access and download capabilities. Whereas some companies maintain dedicated high-speed (broadband) Internet access, other firms use much slower dial-up connections to the Internet. This can have a profound effect on a firm's ability to search various business and contracting opportunities as well as download, in a timely manner, all available information about a potential procurement. Both cost and availability have a direct impact on a small firm's choice of access mode.

- Market barriers

Market barriers include those barriers that are external to the firm, and are driven by market forces (supply and demand) as opposed to other entities such as the government. One example could be the down turn in economic activity meaning that there would be less money to spend for the adoption of e-procurement. Small firms view the potential benefits relative to the cost of investing in this technology as being modest, and in difficult economic times, the expected economic payout may not justify this investment. Another example of a market driven barrier would be high entry barriers in certain markets especially when competing with the government for e-procurement business.

- Regulatory (government barriers)

Regulatory barriers include barriers created by governmental action or intervention in the market or action directly affecting electronic commerce including procurement.

- Barriers unique to firm size

Some barriers relate specifically to the size of the firm. For example, some small firms have concerns that the high cost of investing in e-commerce and e-procurement will prevent them from competing for such business. This “cost” is not necessarily large in absolute terms, but it is relative to any perceived benefits that small firms expect they will receive.

In a recent survey of 102 international active e-marketplaces and procurement service providers, Huber et al (2004) found the following perceived barriers to electronic procurement:

- a “wait-and-see” attitude among firms in selecting e-marketplaces and procurement service providers;
- concerns over security and confidentiality of the data needed to be exchanged in electronic environments;
- reluctance to share data with trading partners;
- the “non-feasibility of custom-made products” for pooling initiatives;
- lack of standardization; and
- uncertainty over trust and commitment among trading partners.

Day et al. (2003) noted users' reluctance to be subjected to significant changes in business processes as a major barrier to the implementation of e-procurement systems.

Saeed and Leith, (2003) examined buyers' perceptions of e-procurement risks and arrived at three dimensions:

1. Transaction risks resulting from wrong products purchased due to incomplete or misleading information;

2. Security risks resulting from unauthorized penetration of trading platforms and failure to protect transaction-related data while being transmitted or stored; and
3. Privacy risks arising from inappropriate information collection and information transparency.

Yen and Ng (2002) found that both buyer and seller firms in their sample considered the following prohibitive and discouraging:

- the costs and development time required to set up online procurement systems, enabling these systems, and meeting workforce requirements of such systems;
- the lack of adequate security measures to protect data; and
- trust issues between buyers and sellers.

2.3.4.0 E-procurement strategies

E-procurement is an area of procurement that is developing and changing at an extremely rapid rate giving way to development of technologies and new strategies to serve the needs of the market. As a result, various strategies have been adopted by firms towards e-procurement technologies in order to meet up with the pace. More and more firms continue to undertake the wait and see approach (strategy) by not committing up to 70% of their resources into the business but await for the best model of e-procurement. These firms are future- oriented as they look forward to seeing the current state of development and assess whether there is need to shift their established procurement processes to the e-world. (Davila et al, 2002) argues that this type of strategy reflects active experimentation but no sizeable investment until the best e-procurement model is defined.

Fewer firms take the passive strategy (4%), which connotes more observation without experimentation. This implies that the capabilities and risk solely depends on how efficient and quickly an organizational learning can be easily absorbed without creating absorptive capacities. Other modest firms adopt the aggressive strategy (27%) which is however defined as riskier in the absence of any well defined solution and firms may likely end up by betting on the wrong technology (Davila,2002). This strategy as proposed by (Cohen & Levinthal,

1990) declares the adoption of e-procurement strategy by investing significantly up to 3% in order to gain a competitive lead or moving fast into e-procurement solutions (24%).

Firms adopt these strategies mainly to ensure that costs are properly managed and margins are improved.

2.3.5.0 E-procurement Models

For today’s industrial age organisations to become tomorrow’s leaders in e-business, their current procurement practices must change (Kalakota, Robinson 2001). As a consequence, for organizations to compete successfully and retain customers who are of primary concern, organisations need to deploy new models of e-procurement applications to improve their procurement processes. There is a range of different models for procurement. The models are evolving fast, so it is difficult to know which to select (Chaffey, 2004). These various new models of e-procurement application exploited by different researchers attempt to solve similar business process problems.

Kalakota and Robinson (2001) divide these e-procurement trading models into seven which, they categorise as either a public or private exchange. The table below lists the seven basic types of e-procurement trading models in use and shows their key differences.

Table 3: Comparison of various e-procurement models

S/N	Trading Model	Characteristics
1	EDI networks	<ul style="list-style-type: none"> • Handful of trading partners and customers • Simple transactional capabilities • Batch processing • Reactive and costly value-added network (VAN) charges
2	Business-to-employee(B2E) requisitioning applications	<ul style="list-style-type: none"> • Make buying fast and hassle-free for a company’s employees • Automated approval routing and standardization of requisition procedures

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

		<ul style="list-style-type: none"> • Provide supplier management tools for the professional buyer
3	Corporate procurement portals	<ul style="list-style-type: none"> • Provide better control over the procurement process and let a company's business rules be implemented with more consistency • Custom, negotiated prices posted in a multisupplier catalog • Spending analysis and multisupplier catalog management
4	First-generation trading exchange: community, catalog, and storefronts	<ul style="list-style-type: none"> • Industry content, job postings, and news • Storefronts: new sales channel for distributors and manufacturers • Product content and catalog aggregation services
5	Second-generation trading exchanges: transaction-oriented trading exchanges	<ul style="list-style-type: none"> • Automated requisition process and purchase order transactions • Supplier, price, and product/service availability discovery • Catalog and credit management
6	Third-generation trading exchanges: collaborative supply chains	<ul style="list-style-type: none"> • Enable partners to closely synchronize operations and enable real-time fulfilment • Process transparency resulting in restructuring of demand and supply chain • Substitute information for inventory
7	Industry consortiums: Buyer and supplier led	<ul style="list-style-type: none"> • The next step in the evolution of corporate procurement portals

Source: Kalakota and Robinson, 2001

Wilson (2002) divides the new models e-procurement into three applications.

- Buy- side procurement is a form of procurement system developed and implemented by large buyer organizations to web-enable their purchases with selected suppliers. These suppliers are also using e-procurement in the entire management processes relating to purchase, product development, transactions, etc. This actually creates a virtually integrated inter-organizational system between the buyers and the seller like EDI systems but with greater scope and capabilities. This type of model is designed predominantly to serve the needs of the buying organization.
- Sell-side procurement also referred to as e-sales is a form of procurement system by which one supplier sells to large number of buying organizations using e-procurement systems.
- E-Marketplace and trading hub is the combination of industrial consortium and the trading exchanges. This type of model brings together many different buying and selling organizations in one trading community. The prominent e-marketplace task is auction where a variety of products is displayed. These create a close relationship and increase collaboration between organizations in a particular trade sector.

2.4.0.0 SUPPLY CHAIN MANAGEMENT AND E-PROCUREMENT

Supply Chain Management has become increasingly important over the past few years and this can be attributed to the fact that on average about 70% of the sales revenue are spent on supply chain related activities from material purchases to the distribution and service of finished products to the final customer .With increasing tough competition in the world economy, raising prices is no longer as important as before in sustaining competitiveness and the resulting profitability. More and more organisations are competing on the basis of product innovation, higher quality and faster response times all of which are usually delivered at the same time and must be at the lowest costs attainable. It is important to realise that these competitive dimensions can only be delivered if the supply chain is effectively managed. This entails that organisations with the most competitive supply chains will be the ones that will excel in contemporary business (Presutti Jr., 2003).

All the links in the supply chain must be strong and well connected. The key link, which is regarded as the one that sets the foundation for the others is supply management, which in this case refers to purchasing/ procurement and is on the in put end of the chain.

Increasing focus on Supply Chain Management has attracted the attention of top management to the value added potential of supply management. The potential impact on competitiveness and profitability is enormous because the average manufacturing firm spends about 50% of its sales revenue on the purchases of goods and services needed to produce its final product and most of these expenditures occur on the supply end of the chain (Presutti Jr., 2003). As more emphasis is put on Supply Management rather than the traditional purchasing, it has become necessary that the professional supply manager takes a more strategic view of their activities and goes beyond the typical transaction focus of purchasing where price and availability were important factors to consider in any purchase decision. Some of the more strategic activities include a comprehensive understanding of target costing, value engineering, supplier development, and electronic procurement (Presutti Jr., 2003).

2.5.0.0 THE VALUE CHAIN

Michael Porter's value chain (VC) is a well established concept and has been around for two decades. The idea is to help organisations better manage their activities so as to add value to the final customer of their products and services as they move through the supply chain to the final point of delivery, the customer. The value chain describes the different value adding activities that connect a company's supply side with its demand side (Chaffey, 2004). Value chains can exist within the organisation (internal value chain) as well as outside the organisation (external value chain) where activities are performed by people outside the organisation. Managers need to understand and analyse the different parts of the value chain as this enables them to redesign the internal and external processes to improve their efficiency and effectiveness. One way of adding value to the customer is by reducing cost.

(Kaplinsky, Morris, 2000) identified three reasons why value chain analysis is important in an era of rapid globalisation as follows:

- With the growing division of labour and the global dispersion of the production of components, systemic competitiveness has become increasingly important

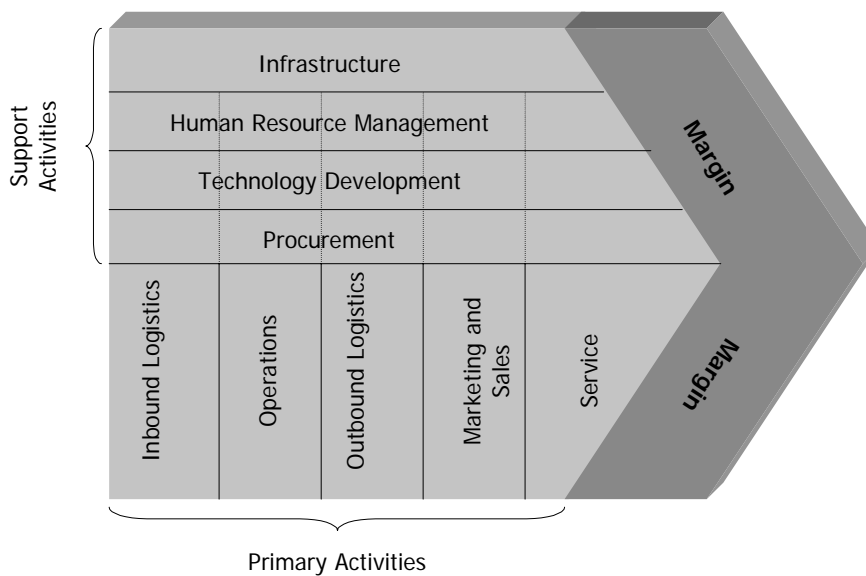
E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

- Efficiency in production is only a necessary condition for successfully penetrating global markets
- Entry into global markets which allows for sustained income growth – that is, making the best of globalisation - requires an understanding of dynamic factors within the whole value chain.

Porter identified primary and secondary activities of the value chain as shown below:

The basic model of Porters Value Chain is as follows: (Recklies, 2001)

Figure 4: Shows Porter’s Value Chain model



Porter 1985

These activities must allow the customer a level of value that surpasses their cost thus resulting in a profit margin for a firm. The more effective a firm is in performing these activities, the more profit margins it gets and the customer must be willing to pay more than the cost of the activities of the value chain. The linkages between activities are critical for the organisation’s success and can be in form of information flow, goods and services, as well as systems and processes for adjusting activities (Recklies, 2001).

As seen from the diagram above, there are two main types of activities, the primary and secondary (support) activities which are described below.

<http://www.netmba.com/strategy/value-chain/>.

Primary value activities:

- Inbound logistics: the receiving and warehousing of raw materials, and their distribution to manufacturing as they are required.
- Operations: the processes of transforming inputs into finished products and services
- Outbound logistics: the warehousing and distribution of finished goods
- Marketing and sales: The identification of customer needs and the generation of sales
- Services: The support of customers after the products and services are sold to them.

Secondary (support) value chain activities:

- The infrastructure of the firm: organisational structure, control systems, organisational culture etc
- Human resource management : employee recruiting, hiring, training, development and compensation
- Technology development : technologies to support value chain activities
- Procurement : purchasing inputs such as materials supplies and equipment

Improved procurement strategies can be an important way of adding value. When an organisation can obtain goods and services at a lesser cost than previous transactions, this entails that customers can also be charged a lesser price and the organisation's profit margin will not be affected. However, care must be taken not to compromise on quality.

(Chaffey, 2004) argues that with the advent of e-business support activities offer much more than support. Having effective information systems and management of human resources make a great deal of contribution to the primary activities. Internet technologies can reduce production times and costs by increasing the flow of information as a way to integrate a wide range of value chain activities. This can ensure that the value chain is more efficient and customers receive goods and services at the right time.

Electronic communications can be used to enhance the value chain by making value chain activities such as procurement more efficient and also enabling data integration between activities (Chaffey, 2004). Further, other factors such as improved delivery time, lower prices and increases in product innovation are ways of significantly adding value to an organisation's offering which in turn helps them to retain customers and attract new ones.

2.6.0.0 VALUE NETWORKS

Over the years, there has been discussion and research about the developments of supply chains into value networks. (Bitran, Bassetti, Romano, 2003) have defined a value network “as one in which a cluster of actors collaborates to deliver the highest value to the end consumer and where each actor is responsible for the success or failure of the network”. This means that there is mutual dependence amongst all the participants in the value chain in an effort to pool core competencies and be able to get the best skills from each network participant. One important point to note is that while everybody is at the same level in the network, the buyer still retains control over the performance standards of the network. (Bitran, Bassetti, Romano, 2003) point to the fact that although value networks consist mainly of three participants namely the buyer (the consumer of goods and services), the supplier (the producer of goods and services), and the logistics provider (the transporter of goods), the buyer has a lot of influence over the actions of the other actors and it is therefore assumed that the supply chain system is a buyer-centric network.

For supply chains to be transformed into value networks , all the actors in the chain must be dependent on each other to collect, process, monitor, interpret and share information to maximize productivity and the utilization of assets for all the players in the network (Bitran, Bassetti, Romano, 2003). Whereas a basic supply chain tends to be linear and depends a great deal on timing mechanisms, a value network is much more dependent on the harmonization and management of processes and transactions.

2.7.0.0 INTERNAL CUSTOMER SERVICE

Internal customer service as already defined in the previous chapter has to do with serving the needs of those within the organisation which ultimately affects how the external customers are treated. If people within the organisation are not providing good service to each other, it follows that the external customer will be affected one way or the other. Many writers have been able to allude to the fact that “great external customer service depends on excellent internal customer service “(Earl, 2006). Departments within the organisation should be able to serve each other efficiently and effectively before they can satisfy their external customers.

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

Good internal customer service ensures that the different units of the organisation work together in harmony and are in agreement over processes and procedures as they work towards a common goal. They must understand that what they do and how they do it affects the others and they are also affected by what others do and how others perform their duties. Delivering high quality services and products to the external customer therefore is very much dependent on the level of internal customer service that exists within the organisation. Organisations must thus pay attention to matters relating to internal customer service as this not only makes the organisation survive and prosper in a highly competitive environment but also has the added advantage of motivating employees and promoting a conducive environment to work within.

Business practitioners have maintained that it is important to fulfil the needs of internal customers before meeting the needs of external customers and Bill Marriott, Jr, chairman of Marriott Hotels, argues that employees must be satisfied before external customers will be satisfied. His reasoning is that if these internal customers are satisfied, they will love their jobs and feel a sense of pride in the hotel (Gremler, Bitner, Evans, 1993). This, in turn, will lead to external customers being well served (Keller and Armstrong, 1991). Others have argued that employees must come first, even ahead of customers because if employees are not happy with their jobs, the external customer will never be uppermost in their minds and researchers also agree that satisfied internal customers are a critical prerequisite to the satisfaction of external customers (Gremler, Bitner, Evans, 1993).

One important aspect of internal customer service is that even if the service they get from others is not satisfactory, they usually have no choice but to go back to the same service provider as they can not take their custom else where. For example, if the marketing department keeps getting a lousy service from the production department, they have to keep going back because they have no choice as that is the only production department available. This entails that the internal customer is frequently a captive customer (Nagel and Cilliers, 1990). External customers on the other hand, usually have a wide range of choices to make between alternative suppliers. Once they are not satisfied with one supplier or service provider, they can always take their custom elsewhere.

However, more and more, many organisations are requesting that internal service departments such as Information Technology and Human Resources be more accountable as they have

realised the role that internal customer service plays in the overall success of the organisation (Gremler, Bitner, Evans, 1993). Increasingly, organisations are outsourcing services which have been traditionally provided by such internal service providers and they will have to apply a certain level of service quality that will be satisfactory to their internal customers (Gremler, Bitner, Evans, 1993).

Moreover, there has been compelling evidence that a strong connection between internal customer service and customer loyalty exists, “the basic assumption that if everybody strives to provide their internal customer with better service, then the end customer will receive higher quality service,” has now been empirically validated (Hammond ,2004)

From the literature review, it has been seen that internal customer service is vitally important as it plays a key role in the overall success of the organisation. The question of how e-procurement affects internal customers is therefore key.

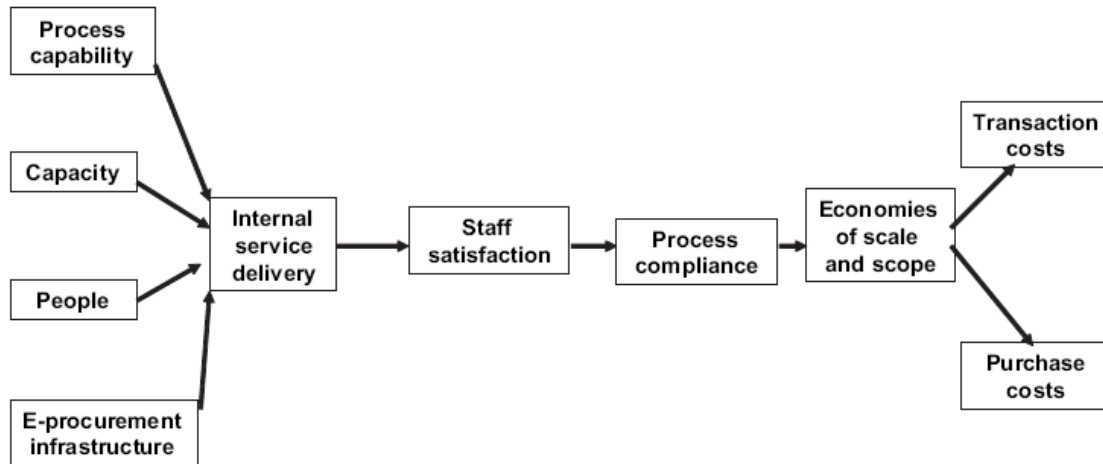
2.8.0.0 E-PROCUREMENT AND INTERNAL CUSTOMER SERVICE

The procurement activity cuts across both the internal and external services of an organisation. This means that e-procurement has implications both for the internal customers and B2B services. As procurement is an important part of the supply chain management, the effects of e-procurement on the internal activities of the organisation and finally outside the organisation have important implications.

Croom, Johnston (2003) concluded in their research that internal customer satisfaction is central to the success of e-procurement deployment and is a significant determinant of the costs to be gained from its adoption. The paper proposed that internal customer satisfaction is determined by the levels of service delivery achieved by e-procurement processes. Internal customer satisfaction is an important determinant of process compliance .Further, they have argued that increased compliance is critical to the achievement of both the internal “transaction” costs and external purchase costs benefits so widely acclaimed for e-procurement adoption. The implications of the research are that greater awareness and attention to internal customer satisfaction are critical for successful e-procurement implementation. They proposed a causal map of the relationships between the quality of the

internal service delivery, staff satisfaction, the level of compliance and the consequent results from e-procurement use.

Figure 5: Shows a causal relationship between internal customer satisfaction, e-procurement compliance and procurement costs.



Source: Croom and Johnston (2003)

In this study service quality criteria identified by Johnston (1995) was used and these are: Attentiveness, responsiveness, care, availability, reliability, integrity, friendliness, courtesy, Communication, competence, functionality, commitment, access, flexibility, security

Further, (Croom, Johnston, 2006) have indicated that e-procurement influences the internal customers' perceptions of the service quality they receive. However, this study is limited, so far, by the fact that this is merely a pilot study and that further data collection is necessary before they can posit statistically significant conclusions. Nevertheless, at this stage in the research, the initial indications are: that e-procurement enhances internal customer service satisfaction in those aspects of service quality directly related to the design of the system (i.e., the 'functionality' of the system as it is often described in practitioner literature), and that internal customers expressed dissatisfaction in the aspects of the delivery of the process (i.e., network and communications infrastructure reliability).

Over the past decades, a lot of important literature has addressed the issue on service quality and customer satisfaction. It has been known that customer satisfaction has a tremendous impact on customer retention, customer loyalty and customer attraction (Anderson et al. 1994; Loveman, 1998) and (Schneider and Bowen, 1995). It has also been known that customer

satisfaction also has a direct impact on staff (internal customer) satisfaction which invariably has an impact in the financial performance of an organization. (Miller, 2006) alludes to the fact that just as customer service leads to customer satisfaction, internal customer service leads to employee satisfaction and argues that “employee satisfaction will be equal to customer satisfaction”.

Most service research have primarily focused on Business to Consumer (B2C) whereas, barely few papers deal on internal service issues or Business to Business (B2B). For example, recent publications such as Zenz and Thompson (1994), Parasuraman et al. (1994), Swan et al. (1999), Voss (2000) and Zhu et al. (2002), have all been concerned with B2C service and, exclusively, with external customers (Croom, Jonhston ,2006). Moreover, data from research organisations such as Forrester Research and Gartner have demonstrated that the greatest potential from e-business will be in B2B and internal services. The internal perspective seems to be lacking in the service research and thus, recognising its importance is not new (Berry, 1981; Grönroos, 1984; Lings, 2000). The importance of the internal customer has for a long time been accepted as a key issue in operations design and improvement (Croom and Johnston 2003) and satisfying internal customers underpin effective service of the external customers who form the basis for organisational existence.

Increasing intense competition amongst organisations and the growing importance of Supply Chain Management have become important factors for organisations to consider in order for them to survive.

Procurement management is an important means to reduce costs and to enhance the competitive advantage by first reaching the needs of the other departments (internal customer service) which in turn benefit the external customer. Procurement is an important internal service found in organizations and can be responsible for a large amount of spending, for example, on material components, facilities, subcontract capacity, IT equipment and supplies, consumables, stationery, travel, and insurance (Croom, Johnston, 2006).

2.9.0.0 FUTURE TRENDS OF E-PROCUREMENT

E-procurement practices will continue to grow as firms constantly exploit e-business in conducting their businesses. The need for innovation also continues to grow and it has

become necessary for new rules of competition to be set. Many research groups have predicted that there will be strong growth in e-business. Other researcher are of the opinion that in the near future that the task of searching for suppliers and products may be taken over by software (Intelligent) agents that assist humans by automatically gathering information from the internet or exchanging data with other agents based on parameters supplied by the user (Chaffey, 2004). Lee and Whang (2002) attest to the fact that the future of e-business lies in intelligence. They believe that the next trend of e-business is intelligence at the supply chain level.

Evolution of e-procurement market is still going on and new business models are being tested all the time. With the widespread wireless, the future trend will involve mobile e-procurement and substantial investments have been made to advance mobile technologies and applications (Yi-chen, 2005).

2.10.0.0 CONCLUSION OF LITERATURE REVIEW

The literature review has provided some insights as to the importance of e- procurement in today's business environment. Many benefits of e- procurement have been outlined and there is no doubt that organisations that have implemented it properly have a lot to gain. It has also been seen that e-procurement has not been without its problems but many of these have been overcome especially after the early days of the dotcom hype. E-procurement can be used as a source of competitive advantage as many companies especially in the developed world continue to adopt e-procurement strategies.

Available literature has also pointed to the fact that electronic procurement generally has a positive influence on the internal operations of an organisation and thus on the internal customer service.

Further, from the literature review it is clear that the satisfaction of internal customers plays a very important role in the overall success of the organisation. It has been seen from the literature that when internal customers are satisfied, they will be more committed to delivering quality service to the external customers. This therefore underscores the importance of ensuring that systems, processes and procedures within the organisation are

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

flexible and meant to serve the needs of the internal customers upon whom the organisation depends for its success and continuity.

The procurement function in general affects many customers both internal and external and usually serves as a boundary spanning activity between the organisation and the external players in the supply chain and thus plays a very important role in the supply chain.

We have also seen from the literature review that e-procurement enhances internal customer service satisfaction in some aspects of service quality especially those related to the design of the system as opposed to those aspects related to the delivery of the process.

CHAPTER THREE

3.0.0.0 RESEARCH METHODOLOGY

According to Marshall and Rossman (1999), a methodology chapter serves to describe the research design and research method. This chapter outlines and discusses the different methods and procedures used in this research work.

3.1.0.0 Research design

According to Ghauri and Gronhaug (2005), the research design is the overall plan for relating the conceptual research problem and the practical empirical research. This implies that the research design provides a framework for data collection and its analysis. Based on the structure of the problems, there are three main classes of research designs. Exploratory research is mainly used when a research problem is badly understood and is unstructured. Descriptive research is used when the problem is structured and well understood. In the third type of design mentioned by Ghauri and Gronhaug, the problems under investigation are also structured but in contrast to descriptive research, the researcher must deal with cause and effect problems and the researcher must isolate the causes and effects (explanatory research).

The research design of this thesis is mainly descriptive in nature as the problem that we are dealing with is well structured and understood.

Further, there are also different ways or approaches which are deemed necessary to put into consideration while conducting a research. According to Yin (2003), he noted that when approaching research work, the best method to be adopted for the study depends solely on the research purpose of that study. Research approach can be divided into two categories namely; deductive and inductive, qualitative and quantitative research. Deductive research could also be called top down approach as it works from the more general to the more specific. This

simply means that it first look at the theory in general and latter narrow it down to the specific.

It is obvious that the approach adopted in this research paper is deductive as it looks at the bigger picture (supply chain, value chain) and narrows down to e-procurement.

Qualitative and quantitative approach on the other hand refers to the way a researcher interprets or analyzes the data collected. Qualitative research involves analysis of data such as words (e.g., from interviews), pictures (e.g., video), or objects (e.g., an artifact) while the latter involves analysis of numerical data.

Qualitative approach has been used in this thesis as it has been found to be the most appropriate.

3.2.0.0 SELECTION OF SOURCES OF PRIMARY DATA

Two companies were used for our primary data: Woody Bygghandel and Tarkett. Woody Bygghandel is in the business of supplying building materials. They have an e-procurement system in place which is why we chose them for our work.

Tarkett is one of the leaders in the hardwood flooring sector. Although this company does not deal in e-procurement per se, it is involved in electronic business with its customers and they were willing to provide us with information especially pertaining to issues to do with Internal Customer Service which is part of our study.

Both companies are located in Ronneby which made it convenient and cost effective for us.

3.2.1.0 History / overview of Woody Bygghandel

Woody Bygghandel is a renowned company known for the supply of heavy building materials. Their customers include both businesses as well as private consumers. The company is privately owned. It has been operating in this business for over 100 years and was incorporated in Ronneby in 2005. The workforce of the company is approximately 120 employees and currently 15 employees are working fulltime in Ronneby. The main departments in Ronneby are sales, transport and stock and the main office takes care of the economic and marketing issues.

The company's products include gypsum, concrete, insulation and trimmings. In 2004, e-procurement was implemented in the company and since then they have been steadily increasing its use. Currently, the company gets most of its invoices electronically from suppliers and only about 2-5% of the suppliers send invoices manually. Woody Bygghandel has more or less a flat organisational structure. The company has about 8000 different stock items. All the staff at Woody Bygghandel have their specific areas of operation and they purchase certain categories of products.

3.2.2.0 History / overview of Tarkett

Tarkett is a famous company known for manufacturing of flooring. It was established in Ronneby, Sweden in 1886. Tarkett's Corporate headquarters is based in Nanterre (France). They are engaged in design, manufacture, and distribution of floor covering solutions for building professionals including architects, specifiers, contractors, distributors and installers. Ever since its commencement, Tarkett has rapidly been recognised as a high quality flooring manufacturer for Europe. Their products range from Wood floors, Vinyl floors and Laminate floors. These are offered to virtually every market segment but are specifically active in: health care, education, stores and shops, housing, and sports. In 1997, Tarkett merged with the flooring activities of Somers Allibert, and the company became known as Tarkett Sommer AG.

Tarkett is one of the leaders in hardwood flooring sectors, having approximately 7,000 global workers and about 700 employees here in Ronneby. They produce about 238 million square metres of floor as well as wall coverings each year. In 2004, Tarkett sales amounted to more than 1,436 million Euros and in 2005, 1.6 billion in euros. Tarkett has been in operation over 100 years, and predominantly specializes on resilient floorings (plastic floorings, linoleum), hardwood floorings (prefinished parquet) and a small segment of the textile flooring (needle-felt and tufting) market, which they call intelligent flooring solutions.

Tarkett commercial continues to invest significantly year after year in high – end manufacturing equipment, ensuring innovation, product quality, cost-efficiency and protection of environment. Tarkett aspiration is to expand in world-class product portfolio to ensure that they meet the expectations of their customer in the global market.

Since 2003, the group has been operating under the Tarkett brand name and being guided by their corporate statement “Stand on excellence”, which imply that they are committed to delivering excellence in every conceivable way. Presently, Tarkett is an innovative and global company, having a leading position with a 22% global market share. Tarkett has established business in more than 50 countries, operating 26 production centres in 10 countries of which 16 are in Europe (<http://www.tarkett.com/>).

3.3.0.0 DATA COLLECTION METHODS

A questionnaire was developed (See Appendix) and sent out to the two companies, Tarkett and Woody Bygghandel. This questionnaire addressed the effect of e-procurement on internal customer service as the respondents needed to contrast their perceptions of the performance of the e-procurement system with their previous (non -electronic) method of procurement and its effects on internal customer service. Effects of internal customer service on external customers were also addressed in the questionnaire. More also, interviews with

the two companies were used to clarify some issues and get important information which has been used in this study.

3.4.0.0 LIMITATIONS OF RESEARCH

3.4.1.0 The ideal situation would have been to look at e-procurement and how it affects internal customer service, that is, the different effects that e-procurement has had on the different departments in different organisations across industries on dimensions such as responsiveness, efficiency, reliability and many other dimensions. It would have been ideal to look at which internal customers are the major beneficiaries of e-procurement and the actual benefits they have been able to derive. This would have meant looking at many different departments within the organisation vis a viz e-procurement. This would have meant finding out which industries are mostly benefiting from e-procurement and on what dimensions. However, the time and resources available can not allow for this rather wide study.

3.4.2.0 In our view, the study would have been more interesting if many different companies across industries that have e-procurement were studied. However, this has cost implications not only in terms of money but also time. Findings from such a study would be more generalised and would thus be more useful to different companies in different industries.

3.4.3.0 Due to time and financial constraints, much of secondary data has been used in this research. If there had been more time available, more companies would have been surveyed to try and get more of primary data.

3.4.4.0 Although e-procurement has been around for a while, it has been difficult to find companies that are using e-procurement to its full potential. This has posed a limitation on our work in the sense that it has been difficult to find a number of companies that have fully implemented e-procurement for some years and make comparisons between them. This would have been an ideal situation.

3.4.5.0 It was also not easy to get companies that were willing to give us the primary data that we needed and some of the companies visited such as Gapro in Kallinge, did not have much of e-procurement although an interview was conducted. Other companies such as UIQ, Nokia and Sony Ericsson did not respond to our requests to allow us do research on their companies.

3.4.6.0 We also had some difficulties in collecting data due to language barriers. One of the respondents for example, Woody Bygghandel only filled in part of the questionnaire reason being that he found it difficult to complete the questionnaire as English is not his first language and that he was too busy with company business. However, we managed to have a short interview with him in addition to the questionnaire which was partly filled.

CHAPTER FOUR

4.0.0.0 FINDINGS AND DATA ANALYSIS

This section comprises the findings and data analysis. As already mentioned in the research methodology, a lot of secondary data is being used in this research implying that the research findings will be based on both primary and secondary data. Due consideration and care has been taken to ensure that the data presented is from scientific and reliable sources.

Sources like Croom, Johnston (2003) and Croom, Johnston (2006) have been used both in the literature review and also in this section. They have proved to be very appropriate for this study as they deal with areas that have been addressed in the study.

Each of the Research questions will be analysed using both primary and secondary data which has been obtained. Information from Woody Bygghandel has been used for both research questions whereas information from Tarkett has been used for only research question II.

4.1.0.0 FINDINGS

4.1.1.0 RESEARCH QUESTION I: Does e-procurement have any effect on Internal Customer Service?

4.1.1.1 PRIMARY DATA

WOODY BYGGHANDEL

An interview was carried out with Woody Bygghandel's Christoffer Mattsson who is in charge of keeping control of stock and the delivery of supply to customers. He has been in the organisation since 2004 and results of both the interview and the questionnaire indicate that e-procurement has drastically

changed the way business is done in the company. Many benefits have been derived from the implementation of e-procurement although there are still some challenges that need to be overcome.

Table 4: Shows the findings from Woody Bygghandel for research question I

S/N	Area affected	Effect after e-procurement implementation
1	Keeping track of stock	Easier
2	Response from suppliers	Faster
3	Amount of paperwork	Less
4	Reliability of information	More reliable
5	Time	Saves time
6	Decision making	Easier
7	Purchasing process	Easier
8	Cost savings	Good
9	Technological skills of staff	Need to be upgraded
10	System Integration with suppliers	In some cases not very good
11	Number of customers	More
12	The five Rs of procurement	Very good

4.1.1.2 SECONDARY DATA

4.1.1.2.1 Croom, Johnston (2003) report that they found that e-procurement leads to changes in user’s behaviour, that it enabled organisations to consider moving away from stocking high inventories of indirect supplies in anticipation of stock outs towards a leaner method of stocking where stocks were made available as and when they were needed. An example is given of one large telecommunications organisation which reduced its physical stores from five regional warehouses to one national warehouse supported by third party delivery to engineers on a same day/overnight delivery service. The direct cost savings through reduced warehouse facilities was £6 million per annum. Another case organisation reduced the costs of supplies by between 5-20 per cent (depending on the category) and reduced requisition to order acknowledgement cycle time from days to hours. As a direct consequence, this increased internal customer

satisfaction and also provided operational improvements such as reduced inventories of supplies held, significantly reduced paperwork and increased the productivity of clerical staff.

- 4.1.1.2.2 Croom, Johnston (2003) also report that from their analysis of procurement managers' responses, they found that e-procurement adoption increased levels of employee satisfaction due to the fact that over- bureaucratic requisitioning and approval processes were replaced with rapid IT based systems. This impacted particularly on the internal customer satisfaction dimensions of availability, responsiveness (speed), flexibility (range) and care (faster problem resolution). The importance of good communication was also stressed in two different perspectives, firstly as a critical element of the e-procurement implementation process by ensuring users are kept informed of progress and trained effectively. Secondly, the use of e-mail and intranet allowed regular and detailed briefings to be communicated across organisations.
- 4.1.1.2.3 Croom, Johnston (2003) further report that from their analysis of internal customers' perception, they expressed greater satisfaction as a result of their ability to exercise more control over their own budgets as a result of rapid and accurate management information. Direct access to ordering and procurement systems made the process easy for users and stressed the importance of system availability. In all of the case organisations, users had reported that it was quicker than the old process.
- 4.1.1.2.4 The operational improvements in terms of speed of processing (measured from requisition to order acknowledgement) were identified to be the main motivator for employees to use the system.
- 4.1.1.2.5 Croom, Johnston (2003) also report that the move to e-procurement had resulted in an explicit focus on internal customer service, through mechanisms such as newsletters, Intranet Web sites and other internal marketing as well as cross-departmental briefings and presentations. Respondents referred to this as cultural shift. . However, satisfaction was not found in all cases. A number of respondents complained that the communications had concentrated almost exclusively on the technical characteristics of the systems and on user training.

The perception in such organisations was that unless the training was well designed and part of a customer-focused service it acted as a disincentive to the user.

*In respect of internal customer satisfaction Croom, Johnston (2003) examined both overall perception of internal customer satisfaction (in interviews) and used some critical incident methods to identify examples of “good” and “bad” experiences with the e-procurement systems. In analysing internal e-service relationships they employed 15 service quality criteria identified by Johnston (1995) which are: attentiveness, responsiveness, care, availability, reliability, integrity, friendliness, courtesy, communication, competence, functionality, commitment, access, flexibility, and security.

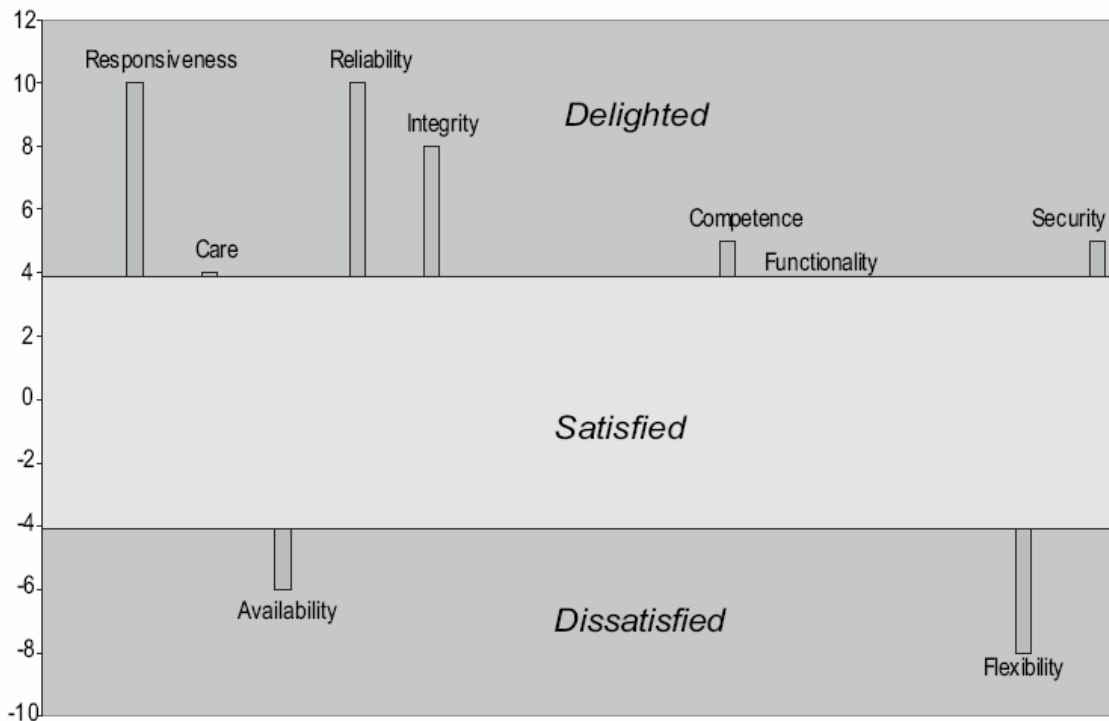
4.1.1.2.6 Croom, Johnston (2006) set out to explore the impact of electronic procurement on the end users’ perceptions of internal e-service quality. The research was based on an analysis of the gap between pre- and post-e-procurement operation on Johnston’s 15 service quality. They set out three categories of criteria according to the impact on users’ perceptions of the change to e-procurement operation: Delight, Satisfaction and Dissatisfaction as shown in the bar chart below. They found that the advent of e-procurement has improved perceptions of internal customer service quality to ‘delight’ users in the attributes directly related to the fundamental process capability of the system. The e-procurement system was found to ‘delight’ users in five specific criteria of e-service delivery: responsiveness, reliability, integrity, compliance and security. The e-procurement system is perceived to be quick, easy to use, accurate and confidential.

Seven criteria showed little difference, if any, between the non electronic and e-procurement processes. Users were found to be ‘satisfied’ in the characteristics of: attentiveness, care, friendliness, courtesy, communication, commitment and access. These seven criteria were reflecting the high contact aspects of the procurement process. The high contact service criteria appeared to be neutral in the sense that there seemed to be little difference between the e-procurement system and the non electronic process.

The e-procurement system was found to have led to dissatisfaction in users in two criteria of e-service quality: availability and flexibility. The e-procurement system was perceived to be more likely to be unavailable to users due to problems associated with server downtime and the system reliability. This problem is compounded by lack of flexibility as the e-procurement system provides only one way to order items.

The indications of this study therefore are that that e-procurement enhances internal customer service satisfaction in those aspects of service quality directly related to the design of the system (i.e., the ‘functionality’ of the system as it is often described in practitioner literature), and that internal customers expressed dissatisfaction in the aspects of the delivery of the process (i.e., network and communications infrastructure reliability).

Figure 6: Shows that e-procurement adoption has an impact on the users’ perceptions of service quality as depicted.



Source: Croom, Johnston (2006)

4.1.2.0 RESEARCH QUESTION II: Does Internal Customer Service have effects on external customers?

4.1.2.1 PRIMARY DATA

WOODY BYGGHANDEL

Table 5: Shows the findings from Woody Byggghandel for research question II

S/N	Area affected	Effect on external customers
1	Keeping track of stock	Good
2	Response from suppliers	Good
3	Amount of paperwork	Good
4	Reliability of information	Good
5	Cost savings	Good
6	Technological skills of staff	Good / Not good
7	System Integration with suppliers	Good / Not good
8	Number of customers	Good
9	The five Rs of procurement	Good

TARKETT

The primary data obtained from Tarkett relates to our second research question as the company does not have an e-procurement system although they use much of Electronic Data Interchange (EDI). The nature of the business of Tarkett, which is the manufacture of floors, requires very specific raw materials and products which normally can not be bought over the internet. Usually, raw materials and products purchased have to undergo several stages of testing to ensure that the materials are of the right quality before they can be purchased and used. They usually have only a few suppliers who they invite for negotiations before they can place their orders and usually e-mails are sent to suppliers to specify the quantities, delivery times and other details. Buying the

wrong materials in a company such as Tarkett can be disastrous and can bring the entire business to a complete stop. Materials which emit certain chemicals for example, can stop the entire plant from operating as some machines may go off due to these emissions.

As regards research question II, that internal customer service has effects on external customers, an interview with Tarkett's local purchaser- raw materials, Åsa Holm, showed that there is an internal business system in place used by all departments. All the departments in the organisation use it to access information depending on their area of interest and functionality. For example the production planning department can access information relating to levels of stock, delivery times and other relevant information. Other information that can be obtained by other departments include different suppliers and how they are rated in terms of behaviour, delivery patterns and other criteria. Information pertaining to prices quantity and invoice numbers can also be obtained from this system.

In Tarkett, there certainly exists an interdependence of departments on each other. For example the procurement/purchasing department affects other units in the organisation in the following ways:

Table 6: Shows how other departments in Tarkett are being affected by purchasing/procurement department.

S/N	Department	How purchasing affects department
1	Economic	Economic planning and invoicing due to information obtained from purchasing
2	Planning	Due to planned availability of raw materials, the department is able to make production plans
3	Development	Can plan their development work and efforts relating to potential cost savings and availability of materials as anticipated by purchasing
4	Goods received	Can place orders according to agreements entered into by purchasing

4.1.2.2 SECONDARY DATA

- 4.1.2.2.1 Researchers report that satisfied internal customers are a critical prerequisite to the satisfaction of external customers. By satisfying the needs of their internal customers, firms enhance their ability to satisfy the needs of their external customers (Berry and Parasuraman, 1991; Grönroos, 1985; George, 1977; Heskett, 1987; Schlesinger and Heskett, 1991; Schneider and Bowen, 1985). They found out that once the internal customers are not satisfied or not happy with their jobs, the external customer will never be uppermost in their minds.
- 4.1.2.2.2 Stanley, Wisner (2001) carried out research with the view of developing additional insights about organisations delivering high levels of service quality to external customers. Survey responses were divided into two groups based on the respondents' assessment of service quality their firms provided to external customers. Group A comprised organisations that were deemed to be high service quality providers to their external customers. Group B comprised organisations that were deemed to be low-to-moderate service quality providers to their external customers. The researchers wanted to know, among other things, dimensions of internal service quality attributable to high quality service providers. Respondents were asked to assess service quality performance, across nine dimensions, which purchasing was perceived to provide their internal customers, and internal suppliers were perceived to provide purchasing as shown in the table below.

Table 7: Depicting internal service quality ratings

Comparison of purchasing's service quality level between groups ^a			
Dimension of service quality	Mean of Group A ^a (n)	Mean of Group B (n = 39)	Significance ^b
Quality of products/services	5.82 (67)	5.05	0.000 * * *
Responsive to internal customers' needs	5.76 (67)	5.13	0.013 * *
Flexibility to changing internal customer needs	5.63 (67)	4.62	0.000 * * *
On-time delivery of products	5.63 (65)	4.64	0.000 * * *
Ability to meet internal customers' expectations	5.58 (67)	4.49	0.000 * * *
On-time delivery of information	5.56 (66)	4.72	0.003 * * *
Reliable delivery of information	5.49 (67)	4.67	0.001 * * *
Explanation of problems	5.38 (63)	4.64	0.003 * * *
Communication level	5.24 (67)	4.51	0.002 * * *
Comparison of internal suppliers' service quality level between groups			
Dimension of service quality	Mean of Group A ^b (n)	Mean of Group B (n)	Significance ^b
Ability to meet purchasing's expectations	4.59 (59)	3.89 (35)	0.004 * * *
Quality of products/services	4.56 (57)	4.09 (35)	0.043 * *
Reliable delivery of information	4.54 (59)	3.91 (34)	0.012 * *
On-time delivery of information	4.51 (59)	3.88 (34)	0.014 * *
Explanation of product/service delivery problems	4.48 (56)	4.00 (35)	0.059*
On-time delivery of products	4.47 (57)	3.80 (35)	0.010 * * *
Responsive to purchasing's needs	4.40 (60)	3.83 (35)	0.016 * *
Flexible to purchasing's changing needs	4.36 (59)	3.86 (35)	0.046 * *
Communication level	4.23 (61)	3.80 (35)	0.096*

Across all service quality dimensions, Group A purchasing departments (those from companies with high levels of service quality to external customers) provided significantly higher levels of service quality to their internal customers than Group B (the lower external service quality providers). Specifically, Group A delivered higher levels of product and service quality, were more responsive and flexible to internal customer needs, and delivered products on time more

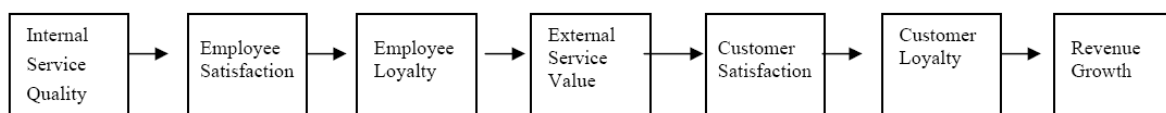
often. Communication levels among purchasing and its internal customers including issues related to delivery of information and problem solving were also significantly superior among the Group A respondents, although they rated themselves lowest among the nine service quality dimensions (5.38 and 5.24, respectively).

Purchasing's internal suppliers also were rated as significantly stronger performers for the Group A respondents along all dimensions of internal service quality, including the ability to meet customer expectations, reliability, timeliness, flexibility, and responsiveness. Furthermore, they delivered higher quality products and services. They also were more reliable and timely in providing new and updated information to purchasing. Communication level, while significantly better, was again rated last and only somewhat greater than acceptable by Group A respondents.

4.1.2.2.3 O’Riordan, Humphreys (2003) allude to the fact that evidence suggests that there appears to be a positive relationship between employee satisfaction and customer satisfaction (Schneider and Bowen, 1985, 1993 and Wiley, 1996). ‘To attain sustained excellent customer support requires internal systems that are aligned to serve the external customer, with each internal subsystem adding value to others within the organisation who are dependent on it (Gilbert, 2000).

The figure below indicates that a positive perception by employees of an organisation's approach to business and the climate in which it operates has beneficial effects on external customers' perceptions of service quality.

Figure 7: Shows the service profit chain



Source: Loveman (1998)

4.2.0.0 DATA ANALYSIS

To analyse the data collected for this thesis work, the research questions formulated will be used which were derived from the theoretical literature and our thoughts. Following up from our findings, empirical data from each case is explained and analyzed differently according to the literature and the companies visited.

4.2.1.0 RESEARCH QUESTION 1: Does e-procurement have any effects on Internal Customer Service?

4.2.1.1 PRIMARY DATA

Table 8: Shows the analysis of findings from Woody Bygghandel for research question I

S/N	Area affected	Effect of e-procurement implementation	Effects on internal customers
1	Easier to keep track of stock	Other employees other than those who are directly in charge of stock within the organisation are able to get more accurate information about what is available in stock. This makes planning easier and they can also be able to give more accurate information to external customers.	Positive
2	Rapid responses from suppliers	This enables information such as delivery times and quantities to be passed on quickly among employees which helps them to plan and give quick responses to external customers. Rapid responses from suppliers also help employees to respond quickly to each other's queries	Positive
3	Less paperwork	Chances of making mistakes are minimised when there is less paper work meaning that chances of passing on mistakes to others within the	Positive

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

		organisation are also minimised. Further, when there is less paper work, employees can spend more time doing more productive activities than shuffling through large amounts of paper. This helps to bring a sense of achievement to employees as they feel they are more productive.	
4	More reliable information from suppliers	Employees such as the sales staff are able to get accurate and reliable information from those from the economic department which they pass on to customers. This is due to the fact electronic information is more reliable than phone or verbal conversations which have no written records. Reliable information gives all the employees a sense of confidence in the system and also in the suppliers.	Positive
5	Saves time	Doing business electronically is obviously faster than manual systems. For example, the first few minutes of a telephone conversation would involve greetings and formalities and a fax sent may not be received immediately by a supplier and it could be an emergency. Such time wastage is reduced where transactions are being done electronically. This means that employees within the organisation have more time to do important activities such as responding to queries of others within the organisation or helping others.	Positive
6	Easier to purchase goods and make decisions since the products that the supplier has in stock can be	This makes it easier for the stock department not only to give accurate information to the sales staff but also to make decisions about products in advance which also helps the sales staff to make decisions on time.	Positive

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

	seen from the system and the products are well defined and coded.		
7	The purchasing process is made easier and faster as goods can be ordered after normal working hours.	This makes work easier and faster. Emergencies can be dealt with immediately without having to wait for the normal working hours of the suppliers. This helps employees to flow in their work. The stock department for example, can advise the sales staff about the status of the delivery schedules as soon as they report for work as they would have received a response from their suppliers even outside the normal working hours.	Positive
8	Cost savings	Fewer people are required to work than in the non electronic period due to the fact that a number of things are done electronically. Cost savings also occur in form of less time and resources spent in searching for goods and also more accurate information about products and other relevant information.	Positive in the sense that employees spend less time doing certain activities. Negative in the sense that some employees may be deployed elsewhere and they may not like it.
9	Technological skills of staff	Staff have had to learn how to use new technology upon implementation of e-procurement, some workers have been quite resistant to this change. Some employees have been restricted in the use of the new technology especially the older ones. Some have adapted well and those that have been	Positive in the sense that employees who embrace change and want challenge feel a

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

		slow to adapt are slowly learning from those that have been quickly acquainted with the new way of doing business.	sense of satisfaction. Negative in the sense that some employees feel threatened due to the use of new technology.
10	System Integration with suppliers	There is incompatibility of systems between the company and some of its suppliers. This causes some disruptions and delays in business as solutions need to be found to such challenges. In some instances work is doubled as employees have to resort to manual systems alongside the electronic systems. In cases where there is compatibility between the systems, many benefits have been derived and employees feel satisfied with the system and this makes them more efficient in their jobs as there is continuity of work.	Negative/Positive
11	More customers are attracted to the company due to the use of e-procurement	E-procurement attracts certain types of customers as they feel confident and secure in dealing with the company and a number of the company's customers have realised that doing business electronically is the way forward otherwise they will be left behind. This makes employees to feel confident and enhances their morale. Also, the more customers the company gets, the more revenue comes into the company and the employees are able to share in the financial benefits that accrue to the company.	Positive
12	The five Rs i.e	E-procurement implementation has helped to	Positive

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

	<p>buying at the Right price, time, source, quality and quantity.</p>	<p>ensure that the organisation is able to buy goods at the Right price, time, quality, quantity and from the right source. This is because the organisation is able to access most of this information electronically and can easily and quickly make comparisons among the different sources and the prices they have to offer. This not only helps employees to make decisions quickly but also more easily implying that they can quickly pass on this information to those who need it within the organisation at the right time thus minimising dissatisfaction amongst employees.</p>	
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4.2.1.2 SECONDARY DATA

Table 9: Shows an analysis of the findings of Croom, Johnston (2003).

S/N	Criteria	Non electronic procurement	Electronic procurement	Effect of e-procurement on internal customer service
1	Inventory levels	High	Low	Positive
2	Bureaucratic requisitioning and approval processes	High	Low	Positive
3	Rapid and accurate management information	Low	High	Positive
4	Speed of processing requests	Low	High	Positive
5	Cultural shift (explicit focus on internal customer service	Low	High	Both positive and negative

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

Below is a summary of the table above:

- I) Low inventory levels held as a result of e-procurement has had a positive effect on internal customer service.
- II) Requisitioning and approval processes are less bureaucratic with the advent of e-procurement which has had a positive effect on internal customer service.
- III) With the deployment of e-procurement, there is rapid and accurate management of information which has had a positive effect on internal customer service.
- IV) The speed with which requests are processed is much faster with electronic procurement than with non electronic procurement.
- V) Although the focus on internal customer service was high with the deployment of e-procurement, satisfaction was not found in all cases mainly due to the fact that respondents felt that a number of communications had concentrated almost exclusively on the technical characteristics of the systems and on user training.

As seen from the above table, e-procurement has had positive effects on internal customers on almost all the criteria depicted in the table above as used by Croom, Johnston (2003).

Table 10: Shows the findings of Croom, Johnston (2006).

S/N	Criteria	Effect of e-procurement on internal customer service
1	Responsiveness	Delighted customers
2	Reliability	Delighted customers
3	Integrity	Delighted customers
4	Compliance	Delighted customers
5	Functionality	Delighted customers
6	Security	Delighted customers
7	Attentiveness	Satisfied customers
8	Care	Satisfied customers
9	Friendliness	Satisfied customers

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

10	Courtesy	Satisfied customers
11	Communication	Satisfied customers
12	Committment	Satisfied customers
13	Access	Satisfied customers
14	Availability	Dissatisfied customers
15	Flexibility	Dissatisfied customers

From the above table, it can be seen that e-procurement either delighted or satisfied internal customers on thirteen of the fifteen criteria which was used by Croom, Johnston (2006). Internal customers were only dissatisfied on two criteria which are availability and flexibility.

First and foremost, due to problems associated with server downtime and system reliability, the e-procurement system was perceived to be more likely to be unavailable to users than the non electronic system. One would therefore infer that if the system is made very reliable and server down time is minimised as much as possible, there would be very few dissatisfied customers.

Further, the problems associated with server flexibility though not easy to overcome, can however, be downplayed by the fact that once a user has gained access to the system, the e-procurement process offers a significant improvement in the perceptions of service quality related to the design aspects of the process.

4.2.2.0 RESEARCH QUESTION II: Does Internal Customer Service have any effects on external customers?

4.2.2.1 PRIMARY DATA

WOODY BYGGHANDEL

Table 11: Shows the analysis of findings from Woody Bygghandel for research question II

S/N	Area affected	Effects on Internal Customer Service	Effects on external customers
1	Easier to keep track of stock	If the sales staff get accurate information from staff in the stock department, it enables them to know the exact products in stock, delivery times and when new orders are to be made. For most of Woody’s customers it is crucial that they receive accurate information and that deliveries are not late otherwise the company would be charged a penalty fee for late delivery. Due to the accurate flow of information within the company, there is fast response to external customer’s needs thereby ensuring that they are kept satisfied and chances of switching to other suppliers are minimised.	Positive
2	Rapid responses from suppliers	This enables information such as delivery times and quantities to be passed on quickly among relevant departments which helps them to plan and give quick responses to external customers. When the employees are able to give quick and accurate information to the external customers, the customers would want to come back and buy from the organisation thus leading to customer retention.	Positive
3	Less paperwork	When there are less paperwork within the organization, chances of making mistakes among the employees are minimized thereby reducing the chances of passing on these mistakes to external customers. With less paper work, employees are also bound to be more efficient and effective in	Positive

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

		<p>serving external customers. More attention is given to important issues and external customers.</p>	
4	<p>More reliable information from suppliers</p>	<p>If information from suppliers is reliable, employees can confidently pass it on from one department to another as they are assured that they have reliable information about quantities, quality, delivery schedules, products available, prices and other relevant information. The external customers in turn feel comfortable and safe to do business transactions with the company due to the reliability of the information passed by the employees.</p>	<p>Positive</p>
5	<p>Cost savings</p>	<p>Cost savings can occur in form of less time and resources spent in searching for goods and also more accurate information about products and other relevant information. When there is cost savings, it enables the employees to be more productive as less time and resources are spent. External customers benefit from the cost savings made by the company, as there are possibilities that some items will be cheaper.</p>	<p>Positive</p>
6	<p>Technological skills of staff</p>	<p>Some employees are not familiar with new technology which hampers them in carrying out their tasks efficiently. This may result in some inefficiencies which will be passed on to the external customers. However, for employees who embrace change and challenge, this makes them more efficient and they serve their external customers better.</p>	<p>Negative/Positive</p>
7	<p>System Integration with suppliers</p>	<p>When there is incompatibility between the company's system and that of the supplier, there will be loss of business for some time as the economic department may not be able to make</p>	<p>Negative/ Positive</p>

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

		orders as anticipated. This may lead to the sales department not being able to meet the customers' demands. For a company like Woody, this will attract financial penalties from the customers and the employees feel let down by the system. It also makes them feel that they have failed to deliver to the external customers though it is through no fault of their own. The external customers on the other hand feel dissatisfied and the relationship may be strained. However, in cases where there is compatibility between the company and its suppliers, there are many benefits to be derived and there is continuous flow of business and external customers will also benefit from this.	
8	More customers	With more customers being attracted to the company, each employee has more people to serve and e-procurement makes this faster and easier. Employees feel more productive and the goodwill that accrues to the organisation improves their morale and they tend to serve their external customers even more efficiently and effectively.	Positive
9	The five Rs i.e buying at the Right price, time, source, quality and quantity.	When the organisation buys goods at the right price, time, quality, quantity and from the right source, there will be fewer complaints both between different departments within the organisation and also from the external customers. Employees are also more likely to feel a sense of satisfaction when their customers have fewer complaints. The benefits of the five Rs to the organisation, can also be passed on to the external customers such as buying goods of the right quality entails that external customers will in turn get goods of the right quality.	Positive

TARKETT

The internal business system which has been put in place by Tarkett to ensure that the organisation runs smoothly, has had several benefits to the employees which have also been passed on to external customers.

Table 12: Shows the benefits to the external customers as a result of the internal business system in Tarkett.

S/N	Effects of business system on internal customers	Effects on external customers
1	Less mistakes in the factory due to more accurate information	Better quality products at the expected times
2	Higher efficiency in the factory as production planning is more accurate	Shorter lead times
3	Ability by system users to create queries within the system and extract answers as and when needed	Faster response to external customer's queries
4	Accuracy in production planning	Goods are readily available which leads to customers getting the goods when expected
5	Difficulties in correcting errors and making comments that may be important for other users	External customers may be affected by mistakes made earlier on in the system as errors may have been passed on without corrections.
6	More efficient information management and production planning	More reliable deliveries

The table above clearly shows that the effects the system has had on internal customers have been passed on to external customers.

It is also clear that the procurement/purchasing department affects other departments within the organisation (internal customer service). This calls for internal customer service levels to be high otherwise different departments may not be able to perform their functions effectively

and efficiently. For example, if procurement/purchasing does not negotiate favourable contracts and agreements, the goods received department will be negatively affected. The internal business system has facilitated shorter lead times, improved planning capacity, has made it easier for different departments to find documents that are relevant to them and the creation of different types of reports such as consumption reports is easier and faster.

4.2.2.2 SECONDARY DATA

The table below presents in a simplified way the findings of Stanley, Wisner (2001) with the view of making the analysis much easier.

Table 13: Compares purchasing’s service quality level to other departments between the two groups, A and B.

S/N	Dimension	Group A	Group B
1	Quality of products/services	H	L
2	Responsive to internal customer’s needs	H	L
3	Flexibility to changing internal customer needs	H	L
4	On-time delivery of products	H	L
5	Ability to meet internal customers’ expectations	H	L
6	On-time delivery of information	H	L
7	Reliable delivery of information	H	L
8	Explanation of problems	H	L
9	Communication level	H	L

* The H represents high and the L represents Low and group A comprises those companies that deliver high levels of service quality to external customers and group B comprises those companies that deliver moderate to low levels of

service quality to external customers. This table therefore implies that group A companies rate higher on all the nine dimensions than group B companies.

Table 14: Compares purchasing’s internal suppliers’ service quality level between the two groups, A and B.

S/N	Dimension	Group A	Group B
1	Ability to meet purchasing’s expectations	H	L
2	Quality of products/services	H	L
3	Reliable delivery of information	H	L
4	On-time delivery of information	H	L
5	Explanation of products/service delivery problems	H	L
6	On-time delivery of products	H	L
7	Responsive to purchasing’s needs	H	L
8	Flexible to purchasing’s changing needs	H	L
9	Communication level	H	L

*The H represents high and the L represents Low and group A comprises those companies that deliver high levels of service quality to external customers and group B comprises those companies that deliver moderate to low levels of service quality to external customers. This table therefore implies that group A companies rate higher on all the nine dimensions than group B companies as internal suppliers.

Table 9 is comparing purchasing’s service quality level between groups A and B, that is the level of service quality that purchasing offers to other departments within the organisation. Table 10 on the other hand, is comparing the level of

service quality that purchasing receives from other departments within the organisation between the two groups, A and B.

From the above analysis, it is clear that in both situations, companies in group A rate higher in all the nine dimensions than companies in group B. This entails that those companies with high levels of service quality to their external customers also provide high levels of service quality to their internal customers. Similarly, those companies that provide lower levels of service quality to their external customers also provide low levels of service quality to their internal customers.

4.3.0.0 SUMMARY OF FINDINGS AND ANALYSIS

4.3.1.0 RESEARCH QUESTION I: Does e-procurement have any effects on Internal Customer Service?

Table 15: Summarises the findings of research question I

S/N	Author/ Company	Primary / secondary data	Findings
1	Croom, Johnston (2003) - E-Service: enhancing internal customer service through e-procurement	Secondary	Positive effects of e-procurement on internal customer service on almost all the dimensions used
2	Croom, Johnston (2006)- Improving user compliance of electronic procurement system: an examination of the importance of	Secondary	Positive effects of e-procurement on internal customer service on almost all the dimensions used

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

	internal customer service quality		
3	Woody Bygghandel	Primary	<p>From the analysis done on the findings from Woody Bygghandel, it can be seen that e-procurement has effects on Internal Customer Service. In cases where e-procurement functions well, internal customers are affected positively and where there are challenges in the operations of e-procurement, internal customers are affected negatively. Overall, information obtained from Woody Bygghandel suggest that there are more positive effects of e-procurement on the organisation than the negative effects. When it comes to the five Rs of procurement, that is buying goods at the Right price, time, quality, quantity and source, the effect of e-procurement has been very good.</p> <p>In our view, the negative effects can be overcome once a lot of things are in place with the passage of time. For example, where there are inefficiencies arising due to the fear of use of new technology by some employees, these can be overcome once they are competent and comfortable with the use of new technology.</p> <p>The official interviewed at Woody Bygghandel said he would encourage organisations that have not implemented e-procurement to do so as it is the way forward in today's business world characterised by stiff competition. Initially things may move slowly and there would be many obstacles to overcome, but eventually things will fall in place. In Woody Bygghandel, things are slowly falling in place.</p>

Conclusion for research question I:

From the findings of the primary and secondary data, it can be concluded that e-procurement has positive effects on Internal Customer Service.

4.3.2.0 RESEARCH QUESTION II: Does Internal Customer Service have any effects on external customers?

Table 16: Summarises the findings of research question II

S/N	Author/Company	Primary / Secondary data	Findings
1	Stanley, Wisner (2001)- The determinants of service quality: issues for purchasing	Secondary	Companies with high levels of service quality to their external customers also provide high levels of service quality to their internal customers. Similarly, those companies that provide lower levels of service quality to their external customers also provide low levels of service quality to their internal customers.
2	O’Riordan, Humphreys (2003) - Developing an effective internal customer service ethos	Secondary	Research evidence points to the fact that there appears to be a positive relationship between employee satisfaction and customer satisfaction
3	Woody Bygghandel	Primary	From the analysis done on the findings from Woody Bygghandel, it can be seen that Internal Customer Service affects external customers. In cases where internal customers are positively affected, the external customers will be affected positively and where the internal customers are negatively affected, the external customers will

			be affected negatively.
4	Tarkett	Primary	Primary data from Tarkett also indicates that the effects of the business system being used in the organisation have been passed on to external customers. As seen from table 12, in cases where the internal business system affects the internal customers positively, the external customers will be affected positively and where the internal business system has affected the internal customers negatively the external customers will also be affected negatively. It is clear that the activities of the internal customers affect the external customers.

Conclusion for research question II:

From the findings of the primary and secondary data it can be concluded that Internal Customer Service has effects on external customers. Where Internal Customer Service is low, the service level to external customers will be low and where Internal Customer Service is high, the service level to external customers will be high.

4.4.0.0 CONCLUSION OF FINDINGS

Although the findings of this research indicate that e-procurement has positive effects on Internal Customer Service and Internal Customer Service has effects on external customers, e-procurement has drawbacks that affect its adoption in organisations as follows (Neef, 2001):

- i) System to system integration – despite the genuine potential of e-procurement when well integrated, only a handful of large and progressive companies have been able to fully integrate their electronic procurement

process and systems. Problems involved with systems integration and how quickly or easily these systems can be integrated is dependent on the level of interoperability and compatibility. The low level of technical sophistication among many suppliers is only one issue compounded by the general lack of systems compatibility within the buyer's own organisation. This has tended to undermine the ROI for any e-procurement investment.

- ii) Initial investment costs – An e-procurement initiative of any type comes with significant upfront costs and e-procurement application prices vary considerably and include the following:
 - Catalog and content development
 - Consulting fees (system implementation, EAI, process improvement, change management)
 - Supplier negotiations and assistance
 - Education and training
 - Licensing, maintenance and other system related fees
 - System integration
 - Non production hours spent on the project by in-house resources

- iii) Security, trust and supplier buyer relationships – these are important concerns by procurement specialists in this era of internet based procurement. First and foremost, the internet is inherently insecure and secondly effective e-procurement initiatives often require buyers and sellers to share very revealing data such as procurement related data, financial data and procurement models. Organisations must thus address two important issues, what information to share and which partners in the supply chain to share it with. Further, with more and more information being shared between buyers and sellers, a new level of trust has become necessary.

- iv) Fundamental changes to procurement business processes and company culture – An e-procurement initiative has more to it than just being a new system. There is a complete change of things, new ways of working,

thinking and behaving. It also requires dramatic changes to business processes, for example, there will be changes that will entail a shift to standardised purchasing contracts, methods and more strenuous IT based authorizations for purchases. Implementation of an e-procurement system also unavoidably means insisting on the use of IT systems over the more familiar ways of doing business such as phone ordering. The shift from a manual to an electronic purchasing environment also means changes to roles and responsibilities with many administrative duties being eliminated including some jobs. This will entail retraining some staff in order to take advantage of strategic sourcing opportunities and to redeploy those jobs that have been eliminated.

However, few industry analysts would disagree that the benefits, at least in principle, far outweigh the costs (Neef, 2001).

Authors suggest that since a lot of factors need to be taken into consideration before e-procurement can be implemented successfully, different firms can adopt different procurement strategies as follows:

- It would be prudent for some types of firms such as small and new firms to adopt a wait and see approach. This will enable them to consider issues to do with system-to-system integration, initial investment costs including operating costs, trust issues and even the changes that will affect the procurement business processes before they commit themselves fully to e-procurement. Such firms would have little to lose if e-procurement does not work out for them as they will not have committed so much of their resources in e-procurement.
- Big and well-established firms can adopt the aggressive strategy especially if they want to be market leaders. Going by the research results that e-procurement has positive effects on Internal Customer Service, authors feel well-established firms can adopt this strategy despite the risks involved due to the fact that the benefits that may be obtained would outweigh the risks. If e-procurement affects Internal Customer Service positively and this

affects external customers positively, then such organisations stand to gain much and the prospects of increasing their market shares are high.

- Firms that are extremely risk averse can adopt the passive strategy which implies more observation than experimentation. Such firms however, should remember that the higher the risk, the higher the returns meaning that the less risk they take, the less returns they will have. They will probably miss out on the advantages of being early to adopt new technologies but then they may also gain from the advantages of being the last ones to adopt such technologies. Such advantages may include making use of the infrastructure put up by the early movers or even learning from their mistakes.

CHAPTER FIVE

5.0.0.0 SUMMARY, CONCLUSION, RECOMMENDATIONS AND AREAS OF FUTURE OF RESEARCH

5.1.0.0 SUMMARY

This chapter aims to give the reader a summary of what has been done in this research work, recommendations as made by the authors, conclusion and areas of future research.

The study has focussed on a particular application of e-business which is e-procurement and how this affects Internal Customer Service. This is because E-Business is becoming almost ubiquitous in its many different applications and we have picked a small area of its application to see what effects it has on Internal Customer Service. No doubt, many of our readers have heard of e-business and even used some of its applications such as internet buying, sending e-mails, e-procurement, mobile business, withdrawing money from an Automatic Teller Machine (ATM), ordering merchandise by a retailer using Electronic Data Interchange (EDI) network or a supplier's extranet, electronic invoicing of customers and many others.

An interesting question would be why should Internal Customer Service be considered important as the concept may never even have been heard of by some readers. The authors have been able to find out from the literature that internal customers have a very important role to play in the overall success of the organisation as they are the ones who drive the operations of the organisation. In the globalised world of today, these internal customers who, in this thesis are referring to employees, can only be neglected at the organisation's own peril because the organisation will not be able to survive the harsh business environment without satisfying internal customers first. Satisfied employees will lead to satisfied external customers and this will ultimately lead to the overall success of the organisation. Even if employees are forced by management

through systems and procedures, this will not last and sooner or later the external customer will be affected. Businesses exist to create and keep customers and it is important to understand that the customer is not just the one who pays for the goods or services the organisation sells, what about the Marketing manager who needs flyers to be brought in by the procurement department by a certain date or have bills paid for advertising space by the accounting department? If his needs are not satisfied and at the right time for that matter, the external customer will surely suffer the consequences and so will the profits of the organisation.

Another important thing to understand is that the experiences of internal customers are very similar to those of the external customers and it would be a good idea to gauge the quality of the external service encounters by assessing the quality of the internal service encounters. If a sales representative can not be polite and courteous to those who need his services within the organisation, it naturally follows that he will treat the external customers the same way.

The authors have considered e-business and Internal Customer Service to be important areas that organisations operating in the 21st century should not afford to neglect as they can be important sources of competitive advantage.

5.2.0.0 CONCLUSION

The following are the conclusions that have been made from the findings of this research.

E-procurement affects Internal Customer Service positively on many dimensions and Internal Customer Service also affects external customer service. If the quality of Internal Customer Service in an organisation is low, the quality of the external customer service will also be low. On the other hand, if the quality of the Internal Customer Service within an organisation is high, the quality of the external customer service will also be high. This therefore implies that in organisations where e-procurement has been appreciated by the internal

customers and it has affected them positively, the external customers have also been affected positively.

This study has made some important contributions to extant knowledge about e-procurement and Internal Customer Service. A more developed understanding of the significance of e-procurement as an important instrument to improve Internal Customer Service and thus also external customer satisfaction has been achieved. The study has also shown that e-procurement has the potential to alter the role and status of the procurement function by highlighting the value that the procurement function can add to the organisation when applied electronically.

However, an important factor to note is the fact that although e-procurement seems to have positive effects on Internal Customer Service, it has a number of challenges which should be seriously considered by organisations before it is implemented. It is important to have a holistic understanding of the implications of adopting e-procurement to avoid negative repercussions.

5.3.0.0 RECOMMENDATIONS

5.3.1.0 Although e-procurement seems to have a lot positive of effects on organisations, it must be implemented with caution to ensure that it is implemented at the right time and under the right conditions. It is important to remember that e-procurement may not be right for all types of organisations depending on their business operations and their level of technological development among other things.

5.3.2.0 Organisations should strive to understand and put in practice the principle of Internal Customer Service as this affects the external customer service that the organisation offers. They must put in place deliberate policies to try and measure the level of Internal Customer Service among the different departments as this will be a good indicator of the external customer service being offered.

5.3.3.0 Organisations that may want to pay more attention to Internal Customer Service (especially those to whom the concept is new) must take caution not to focus too much on internal customers at the expense of external customers, they must create a balance.

5.4.0 AREAS OF FUTURE RESEARCH

5.4.1.0 Although e-procurement has many benefits especially as recorded in the first few years of its introduction, the authors feel that research should be carried out to ascertain exactly how much contribution in monetary terms it is making towards organisations. A study of many different companies across industries needs to be undertaken. Depending on how much contribution it is making, it may not be worth implementing in some types of organisations.

5.4.2.0 Research should also be carried out to try and ascertain in what types of organisations e-procurement would be most appropriate and successful.

5.4.3.0 The authors feel that research should also be carried out on the drawbacks of e-procurement in organisations across industries.

5.4.4.0 Research also needs to be carried out on the strength of the relationship between internal service quality level and external service quality level.

CHAPTER SIX

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APPENDIX: QUESTIONNAIRE

- 1 What position do you hold in the organisation and for how long have you been employed?-----

- 2 What unit or department do you belong to?-----

- 3 What business is your organisation involved in?-----

- 4 In what category does your organisation fall? e.g. public, private or other.

- 5 How big is the organization and when was it established?-----

- 6 What are the main six departments in the organisation? Please list them.

- 7 At what level in the structure of the organisation does the procurement / purchasing department fall?-----

- 8 To whom does the procurement/purchasing departmental head report?-----

- 9 How many employees do you have in your procurement/purchasing department?-----

- 10 What kinds of products and services do you normally purchase?

- 11 Which departments/ units do you think are directly affected by the activities of the procurement/purchasing department?-----

- 12 How does the procurement/purchasing department affect these units / departments?--

- 13 Do you have a separate purchasing / procurement department in charge of procurement activities for the whole organisation or does each department in the organisation have its own purchasing/procurement section?-----

- 14 If you have purchasing / procurement as a separate department which serves the whole organisation, how many employees are in the department and for how long has it been in existence?-----

- 15 Approximately, how much is your annual procurement expenditure?-----

- 16 Do you use electronic procurement to acquire goods and services for your organization?-----
- 17 If yes, when did your organization implement e- procurement?-----

- 18 Why did you implement e-procurement?-----

- 19 In your organization, e-procurement encompasses what activities e. g e-invoicing, e-requisitioning etc?-----

20 Does the organization acquire everything through e-procurement or do you use manual systems to acquire certain types of goods and services?-----

21 What have been the effects of e-procurement for the organisation as a whole? Please list down the different effects.

22 What have been the benefits of e-procurement on the procurement/purchasing department?

23 Have these benefits been passed on to other departments and how have they been passed on? -----

24 If yes, what departments are the main beneficiaries?-----

25 What benefits has the organisation derived from e-procurement?-----

26 Are there any draw backs of e-procurement on the organisation, if so what?-----

27 How have these drawbacks affected the procurement/purchasing department in particular and other departments in general?-----

E-procurement, Internal Customer Service And External Customers – A Study of Effects And Interdependencies

28 How effective is your procurement / purchasing department after implementation of e-procurement? Please use the criteria below and tick where applicable.

	Excellent	V. good	Good	Not good	Bad
Cost savings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reliability of dept.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The five Rs

*The five Rs refer to acquiring materials at the right price, time, source, quality and quantity.

29 What changes have you seen in the procurement/purchasing department after the implementation of e-procurement?-----

30 Do you think the external customers have been affected in any way by e-procurement activities within the organization?-----

31 If so what are the effects on the external customers?-----

32 Are you familiar with the concept of internal customer service? If so, what does it mean to you?-----

33 If you know about internal customer service, what measures have you put in place to ensure that it is maintained or improved?-----
