



*Enhancing efficiency and competitive
advantage of business organisations using
e-business: The case of Kenyan companies*

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Abstract

The two most powerful forces affecting the world economy and business today are the increasing rate of globalisation and advances in information and communication technologies (ICTs). In recent years, the exponential growth in ICTs and the resulting rapid emergence of electronic business (e-business) have drastically been reshaping the business world. E-business today plays a major role in the world's economy. Forester Research estimated that, by 2003, the value of e-commerce of USA and Europe would have reached US \$ 3 trillion per annum. Research and literature on e-business in Kenya is scanty and lacks the presence of an endorsing theoretical and empirical framework, which this study attempts to address.

The objectives of this study were to find out; the capacity and willingness of Kenyan businesses to adopt e-business; how the adoption of e-business has changed efficiencies and competitiveness of Kenyan companies; the main disadvantages of e-business; the direction that Kenyan businesses are taking and should take with respect to e-business in the future.

This is achieved by reviewing literature that examines the benefits of e-business and empirically testing the same for a sample of Kenyan businesses. Data from fifty-five randomly selected companies representing a wide variety of industrial sectors were collected by circulating a questionnaire. In-depth interviews were conducted with five executives responsible for business and ICT strategy of four companies.

The literature shows common themes; that the Internet is important in terms of gaining efficiencies and competitiveness and that organisations are more likely to use e-business if others within the same industry likewise do it. This study also found out that e-business will provide significant opportunities to businesses in Kenya. It addresses how businesses in a third world country (where over 50% of the population live on less than a dollar a day) gained benefits as a result of using e-business and also points out the risks of adopting e-business. Finally, this study focused on broad transactional, informational and strategic benefits of e-business.

The study further found that the e-business phenomenon in Kenya, both Business-to-Business (B2B) and Business-to-Consumer (B2C) is at its infancy. The perception of long-term benefits and potential business opportunities leading to the uptake of e-business is still small and there are low levels of integration between the Internet and internal applications. Overall, many Kenyan businesses are slow in taking up the idea of using the Internet to conduct secure and high volume business transactions even though they view e-business to have tangible benefits now and in the future. Further research areas are recommended and these could be conducted on both specific industries and specific benefits.

This study concludes that by adopting e-business, Kenyan businesses will become more efficient and competitive. However if they do not adopt e-business, they will be left way behind many companies in the increasingly globalised world.

Key words: E-business, Efficiency, Competitive advantage

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Chapter 1

Introduction

1.1 Introduction

Today, the Internet and e-business technologies have become strategic essentials for many businesses. We have entered the age of the Internet, a globe-spanning technology, which has taken hold in a tremendous and unprecedented way. Innovations in ICT and the increasing linkage of organisations through the Internet offer new forms of social and economic enterprise, new versatility for business relationships, partnerships, and new scope and efficiency for markets (Brynjolfsson and Kahin 2000).

1.2 Definition of e-business

A working definition of e-business is required so as to increase the understanding of the topic and to provide an overall perspective of this study. Kalakota and Whinston (1997, p. 3) define e-business as:

Sharing business information, maintaining business relationships, and conducting business transactions by means of telecommunication networks

Conducting business transactions would mean buying and selling. The author therefore feels justified to expand the working definition of e-business to include *The buying and selling of information, products and services via computer networks (Choi et al. 1997).*

1.3 The context of the study

It has recently been found by Kaynak et al., (2005) that the adoption of e-business in developing countries, Kenya being one of them is significantly affected by its perceived benefits. Since e-business offers direct links between an organisation and its customers, suppliers and distributors, it enables the organisation to develop new products and services for existing and new customers and offers opportunities for the firm to market their products around the world without physically contacting customers or advertising in other parts of the world. In the light of these factors, the study by Kaynak et al., concludes that it is advantageous for organisations to adopt e-business. However, Government and the private sector in emerging/developing markets and countries should

provide incentives to help organisations engage in e-business with minimal investment and costs. The study further points out that in developing countries, top management does not understand what e-business is all about and this lack of understanding leads them to underestimating the impact of e-business.

This study attempts to address the question whether or not by using e-business, firms in Kenya will be able to enhance their efficiencies and their competitiveness. Since this study's empirical evidence is based on Kenyan organisations, it is good to shed light on e-business adoption in Africa as well as Kenya as follows. Owing to highly developed economies and better infrastructures of some North and Southern African countries, larger populations of Internet users have resulted. In other parts of Africa, especially sub-Saharan Africa including Kenya, the opposite has been true and until fairly recently, the Internet and e-business had not taken off in Kenya. Most of the African countries with advanced e-business connectivity were also among the first on the continent to obtain Internet access and have therefore had more time to develop their Internet and their e-business markets. Kenya on the other hand, has had Internet infrastructural and Governmental policy problems.

1.4 The statement of the problem

Having recognised its merits, the Kenyan Government has recently started to promote the use of the Internet for improving the country's and business competitiveness. A national ICT policy, which is part of the Economic Recovery Strategy for Wealth and Employment Creation Policy 2003-2007, (The Republic of Kenya 2004) was launched in January 2006. This policy shows the Government's vision to make Kenya a prosperous ICT-driven society. The Government's mission is to improve the livelihoods of Kenyans by ensuring easy access to efficient, reliable and affordable ICT services. The policy document is available at the Ministry of Information's Website at www.information.go.ke. The Government is spending huge amounts of resources on Information Technology (IT). For example, an IT network is being developed for the City of Mombasa's port at a cost of United States Dollars (US\$) 25 million in order to automate the processing of paperwork and cargo by the end of 2006 (Ford 2005). In addition to this, all 7000 employees of the Kenya Ports Authority (KPA) were being trained in IT and around 6000 personal computers (PC's) were being

installed to enable electronic internal document transfer so that processing can begin even before ships dock. In the past, stakeholders complained of slow turnaround times but the KPA are now making a genuine attempt to change this. In 2004, the KPA won the International Association of Ports and Harbours (IAPH) Gold plaque for increasing the use of ICT systems.

With an estimated size of 1.6 million users in Kenya at the end of 2005, Kenya has the second largest Internet market in sub-Saharan Africa after South Africa (Global Insight Inc 2007). Kenya is placed at number 75 by the Economic Intelligence Unit's (EIU) e-business readiness rankings of 260 countries (World Markets Research Centre 2004). However, these are no indications or reliable data on the number of companies and business that actively use the Internet to conduct business. The Internet Service Provider (ISP) market is becoming increasingly competitive with 73 ISP's already operating in the country. The launch of the Kenya Internet Exchange Point (IXP) is reducing the need for ISPs to peer traffic outside Kenya and is increasing the efficiency of the Internet within the country. Liberalisation of the upstream sector and the issuance of international Internet gateway licences has introduced competition, lowered tariffs and is leading to significant growth of the sector from 2005 onwards. With rapid growth in Internet usage forecast in Kenya, the potential for growth in e-business is promising.

According to a country report on the Kenyan ICT and Telecommunications industry (World Markets Research Centre 2004), e-business development in Kenya has been sluggish in the past. This has been due to deficient IT skills base, lack of consumer confidence, limited access to low cost high-bandwidth Internet since high bandwidth ICT infrastructure was at an exorbitant cost. Initially, there was also a lack of support by the Government to promote or make use of e-business and e-government. This was changing as e-business is envisaged by the Government to play an important role in Kenya's growth and help achieve its millennium growth policies.

The ICT infrastructure was in poor conditions until a few years ago. There was hardly any digital equipment used in the country. Telecommunications services were extremely unreliable and outrageously expensive. ICT equipment was not

readily available and the duties and taxes on the same were high. All this has changed in the span of the last six years. The Government has done considerably well to develop the ICT infrastructure by the deregulation of the telecommunications infrastructure and through the deregulation of informational flows, removal of its rigid policies that limited new technologies and ideas including lowering and even scrapping of duties and taxes on ICT hardware and software. Thus, the Government is now promoting the growth of the ICT sector and is applying its recently published ICT policies.

There was thus a need for a research study to find out whether Kenyan businesses have the capacity to adopt e-business. In addition to this, there was also a need to find out whether the same companies were taking advantage of ICT deregulation and other ICT policies of the Government, and adopting e-business in order to be able to trade and remain competitive in the globalised world. The outcome of this study will be of significant importance to the Kenyan business community at large and to future researchers' on the subject.

1.5 Study objectives

E-business represents one of the most promising directions for generating increased efficiency and competitive advantages in an organisation at the micro level and for increasing productivity at the macro level of the economy. Kenyan businesses are attempting to adopt e-business in order to manage their internal as well as their external processes and e-business is transforming the manner in which they conduct business.

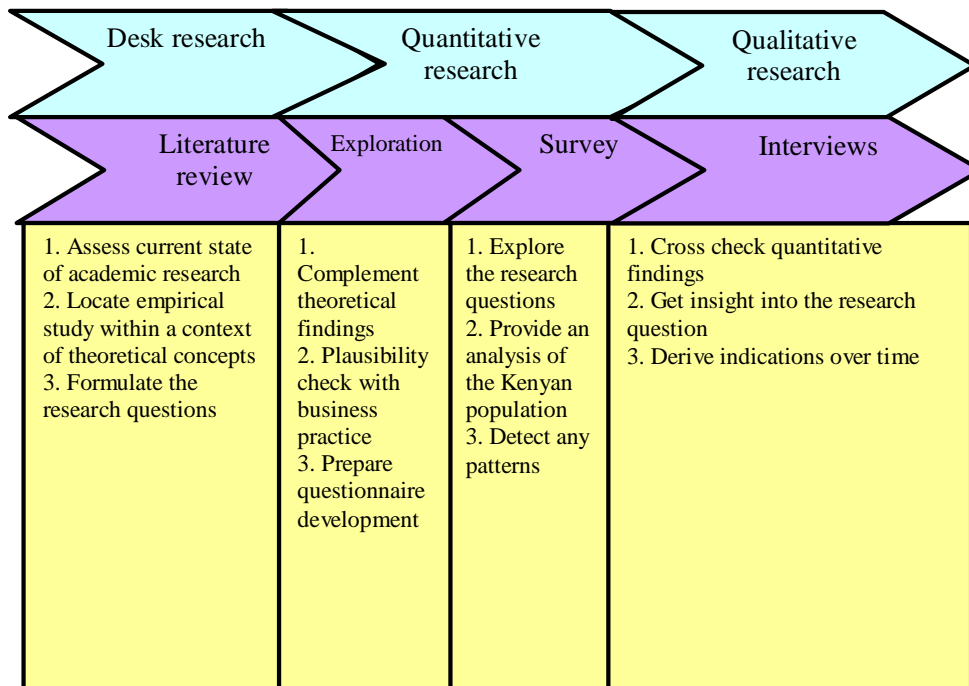
The following were the specific objectives of this study:

- i. To find out if businesses in Kenya are willing and have the capacity to adopt e-business;
- ii. To establish how e-business has helped companies achieve efficiencies and increased competitiveness;
- iii. To find out whether e-business is changing the ways in which Kenyan companies communicate, trade and conduct their business.

1.6 Research approach

Very little empirical research is available or has been undertaken on e-business in Kenya. The executives interviewed during this study were eager to acquire knowledge to help them grasp both the benefits and shortcomings of e-business. Figure 1 shows an overview of the research methods that have been applied to explore the research problem at stake.

Figure 1: Research method



Source: Author.

The desk research assessed the literature on the topic of e-business, its adoption and how e-business contributes towards increasing the efficiencies and competitive advantages of organisations. From this desk research, research questions were developed. A survey in the form of a questionnaire was sent to 325 organisations was followed by in-depth interviews with five executives responsible for business strategy and ICT in four companies.

1.7 The scope of the study

This study focused on large, small-to-medium sized (SME) and small companies in Kenya. Literature is drawn from a wide variety of sources and the study is empirically structured. For the fieldwork, the sample companies were selected from the directory of the Kenya Association of Manufacturers (KAM) and from the Kenyan yellow pages. Over 90 percent of the fieldwork samples were from the directory of KAM. Interviews were also conducted with top management whose influence and support in the adoption of ICT and e-business strategy was high and they were able to generalise the behaviour of their companies. They provided useful insights on; how e-business was affecting them and their perception of e-business on current and future operations. They also generalised their feelings about e-business in Kenya in the future. This study does not identify nor discuss every benefit that increases efficiency and enhances competitive advantage through the adoption of e-business. Instead, this study identifies and discusses the transactional, informational and strategic benefits of e-business.

1.8 Structure of the dissertation

This study consists of five chapters excluding an initial abstract.

A working definition of e-business, the context of the study, the statement of the problem, the research objectives and aims, methodology together with the scope and structure of this study have briefly been discussed in this chapter.

Chapter 2 reviews the literature that is available and relevant to the study. This chapter reviews research carried out by other writers regarding e-business benefits, e-business adoption, and how e-business improves efficiencies and competitiveness.

Chapter 3 describes the design of the study and research methodology. Included in this chapter is a description of how the research instruments were developed, an explanation of the methods applied for data gathering including the in-depth interviews. Analysis of data and results is also made in this chapter.

Chapter 4 discusses the results of the literature review to the quantitative and qualitative research.

Chapter 5 draws conclusions on e-business and provides recommendations based on the findings of this study. Limitations of research and potential future

research are also included in this chapter. The personal experiences of the author from this study are also discussed.

A list of figures and tables has been provided on page vii. The bibliography is alphabetically organised and finally six appendices are attached, which include supplementary material connected to the study.

Chapter 2

Literature Review

2.1 Introduction

This chapter reviews the literature on how e-business enhances efficiencies and competitive advantages of organisations. This review is based on Mirani and Lederer's (1998) empirical study of 178 IT projects. Discussions of the body of knowledge relating to how e-business enhances efficiencies and competitiveness followed by a summary are examined in this chapter.

E-business having been defined in the introduction chapter, Efficiency and Competitive Advantage are now defined.

Rodgers and Harris (2003) define efficiency as

The speed of accomplishing the task effectively or reaching the desired outcome.

Vernon (1970, p. 383) defines competitive advantage as

An organisation's resource base that is not easily acquired or imitated and the organisation will have sustainable competitive advantage if its own structure promotes the effective development and deployment of those resources.

In studies by Teece (1998), survey results show that the rise of the digital economy (B2B and B2C) has made knowledge and information increasingly important as a source of competitive advantage. Such advantages are attributable not only to the ownership of knowledge assets but also to other assets complementary to them and to the ability to combine knowledge assets with other assets needed to create value.

2.2 Main sources of the literature

The main sources of literature were the e-library of Henley Management College and its commercial databases including EBSCO, Proquest and InfoTrac. Other dissertations available via Henley were also used as a guide. Other sources included other University and Business School libraries accessible via the Internet and Google Scholar.

2.3 Transactional, Informational and Strategic benefits

The literature review through the above databases hardly reveals any scholastic documentation of e-business and Kenya or Africa (except South Africa). There is however plenty of literature on e-business, its adoption and its capabilities in the more developed parts of the world including the United States (USA), Europe, Australia and parts of Asia where significant e-business activity is currently taking place.

Mirani and Lederer (1998) have classified the benefits of e-business into three overall type's namely transactional, informational and strategic benefits. **Transactional benefits** - include benefits from internal factors affecting the operations of the business, methods of dealing with customers and competitive advantages from day-to-day transactions.

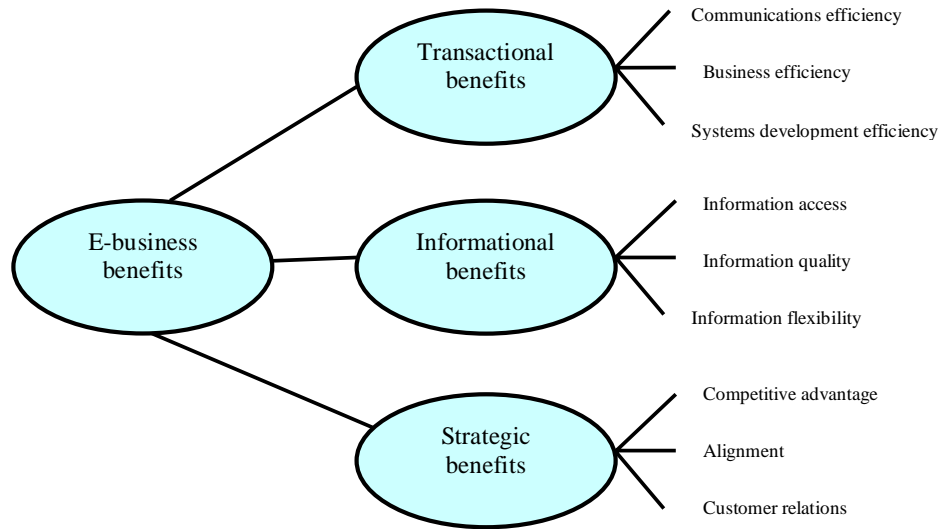
Informational benefits - include benefits from communication related factors and specifically, benefits from communication with customers and from information flows across the organisation, and with its trading partners.

Strategic benefits - include benefits from factors internal to the organisation and affecting its strategic positioning. Examples of strategic positioning factors include the organisation's capacity for change, factors affecting planning for the competitive business environment and those affecting the long-term impacts on customer base.

It is therefore evident that the benefits of e-business will be many and varied.

Mirani and Lederer (1998) split these overall benefits of e-business further. Transactional benefits are divided into communications efficiency, business efficiency and systems development efficiency. Informational benefits are divided into information access, information quality and information flexibility and finally strategic benefits into competitive advantage, alignment and customer relations. The complete breakdown of these benefits is shown in Figure 2.

Figure 2: The benefits of e-business



Source: Mirani and Lederer (1998).

These benefits will be the focus of this review, showing exactly how e-business contributes towards enhancing efficiency and competitive advantage. Readers should be aware at an early stage that this review will show that the individual elements of transactional, informational and strategic benefits complement each other.

2.4 Transactional benefits

Transactional benefits are discussed under the sub-headings communication efficiency, business efficiency and systems development efficiency.

2.4.1 Communications efficiency

Communications efficiency is the reduction of transaction costs by using the Web compared to conventional transactions. Brynjolfsson and Kahin (2000) show that Web transaction costs are as much as 50-99 percent less than conventional transaction costs. These communication efficiencies are related to direct transaction costs but excludes the cost of developing new sell-side or buy-

side systems, the deployment, maintenance of new workstations and the training of people to use the new systems.

A study conducted by the Organisation for Economic Co-operation and Development (OECD) (2001) shows that the Internet and related advances in ICT are transforming economic activity, much as the steam engine, railways and electricity did in the past. E-business acts as a medium for change in business, helping drive improvements through reductions in transaction and communication costs and rationalising supply chains while generating new value-added networks.

In their study, Lucking-Reiley and Spulber (2001) found that Internet communications increase the speed and efficiency of transactions relative to more labour intensive alternatives thereby reducing costs. Further, e-business allows organisations to link their internal computer systems and thereby increasing the frequency, rapidity and accuracy of communications. E-business also allows links to be made between two or more organisations and between their systems including production and inventory management systems. By virtue of such links, communication costs are considerably reduced when using e-business for activities such as ordering, billing and payments. Organisations are increasing their visibility and improving customer loyalty by offering services such as ordering, tracking, help desk and product configuration, leading to massive operating cost savings and making their products and services more competitive (Brynjolfsson and Kahin 2000).

If organisations in Kenya were to adopt e-business, their communication efficiency would increase, as they would tap the benefits that Internet linkages provide. Communication costs will reduce significantly leading to a large impact on organisational competitiveness. In the author's own organisation, communication costs have decreased significantly because of using the Internet and e-business activity. These cost savings emanate from reduced paperwork and time spent on processing paper transactions, travel time, efficiencies during settlement of transactions, efficiencies in daily banking transactions, tracking deliveries and reduced procurement costs.

For small and medium sized companies, the problems encountered with communication efficiency are that the cost of broadband connectivity in Kenya is still exorbitant even though there has been a reduction of over 50 percent in the last two years! At the time of undertaking this study, the author's organisation was paying US\$ 1125 per month for 512 kilo bytes per second connection speed. For similar connection speeds in Europe, costs are less than US\$ 100 per month. Examples of costs in the UK can be reviewed on the British Telecoms Website www.bt.co.uk.

This paragraph reviews literature on the costs of adopting and using e-business to organisation size. Chen et al., (2003), Ash (1997) and Gopalakrishnan and Damanpour (2000) found that different sized organisations have differing capacities to adopt e-business. In their study, they found out that companies have distinct values of specific characteristics affecting profit and of adopting technology at any given time. When these characteristics exceed some threshold level, a company is considered to be at the right position and time to adopt technology. This is where profits are large enough to cover and exceed corresponding efforts and costs of technology including the Internet and e-business.

2.4.2 Business efficiency

E-business is also associated with cost savings due to changes in increased speeds with which business transactions are completed and cost savings due to changes in employee productivity. Employee productivity includes changes in numbers employed in addition to efficiency in working methods.

2.4.2.1 Changes in speed of transactions

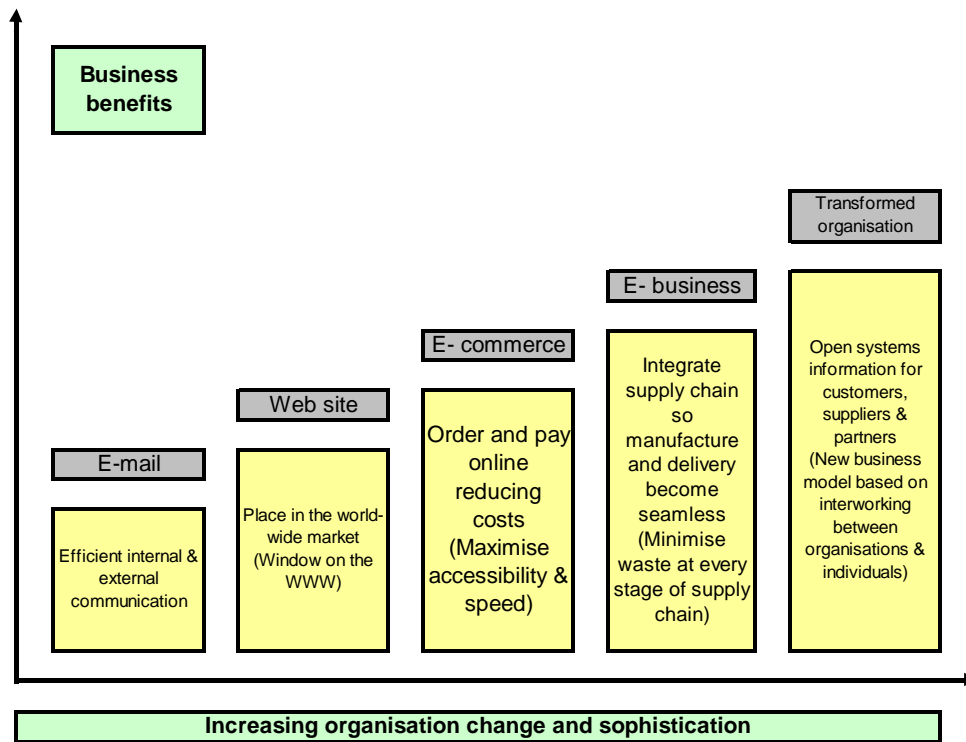
There are improvements in the business efficiencies of organisations when they embrace e-business (MOED 2000; Radstaak and Ketelaar 1998). E-business reduces costs, increase efficiencies and speeds up day-to-day transactions by providing real-time information on product availability, inventory levels, shipment status, payment and production schedules. This ensures better customer and supplier management.

In an empirical study where 1021 US Technology firms were sampled and senior managers from four industries (telecommunications, computer hardware, semiconductor and manufacturing) were interviewed, Wu (2001) found that improvement in transaction speed after implementing e-business brought significant benefits to an organisation. These benefits included reduction of the organisations time to reach customers and speed the process to respond to customer needs thereby increasing the organisations competitive advantage compared to its rivals. Additionally, e-business also helps save money on the cost of paper and personnel. Organisational resources are freed and employees perform more important and strategic tasks. A positive relationship is created between communications and efficiency after implementing e-business.

Raisinghania (2003) states that e-business is one of the most visible examples of the ways in which ICT can contribute towards economic growth. E-business plays an important role in customer support and Customer Relationship Management (CRM) by providing customised real-time information, speeding up and making many processes and transactions more efficient by supplying customers with a wide range of basic information on products, prices, availability, delivery status and product lifecycle management. An example of this is the express delivery company FedEx, which lets its customers track shipments online, increasing the service value for the customer and is an important relief for FedEx's customer call centre.

In another empirical study of 484 businesses in West Central Scotland, Stansfield and Grant (2003) report that there is some evidence of the lack of impact that technology has had on internal organisation processes including speeding up of transactions. The limitations of this study are that nearly 40% of the respondents had only connected to the Internet in the year preceding the study and most of the organisations were at very early stages of Internet usage. It is important to understand at an early stage of this study that e-business activities develop over time and change is progressive. Figure 3 illustrates the different phases that an organisation will undergo and the increasing sophistication that the Internet facilitates.

Figure 3: The DTI adoption ladder



Source: Martin and Matlay (2001).

As Figure 3 shows, the “adoption ladder” approach favoured by the UK Government’s Department of Trade and Industry shows that businesses benefit directly from the adoption of ICT and the Internet. Initially, the organisation starts with e-mail, moves forward to having a Website, thereafter ordering and payments take place online followed by integration of supply chains and finally complete connectivity of systems between different organisations, and between organisations and their trading partners. With opportunities appearing and disappearing quickly, adapting to new technology that understands customer and supplier needs, and exploits new markets requires information at high speeds.

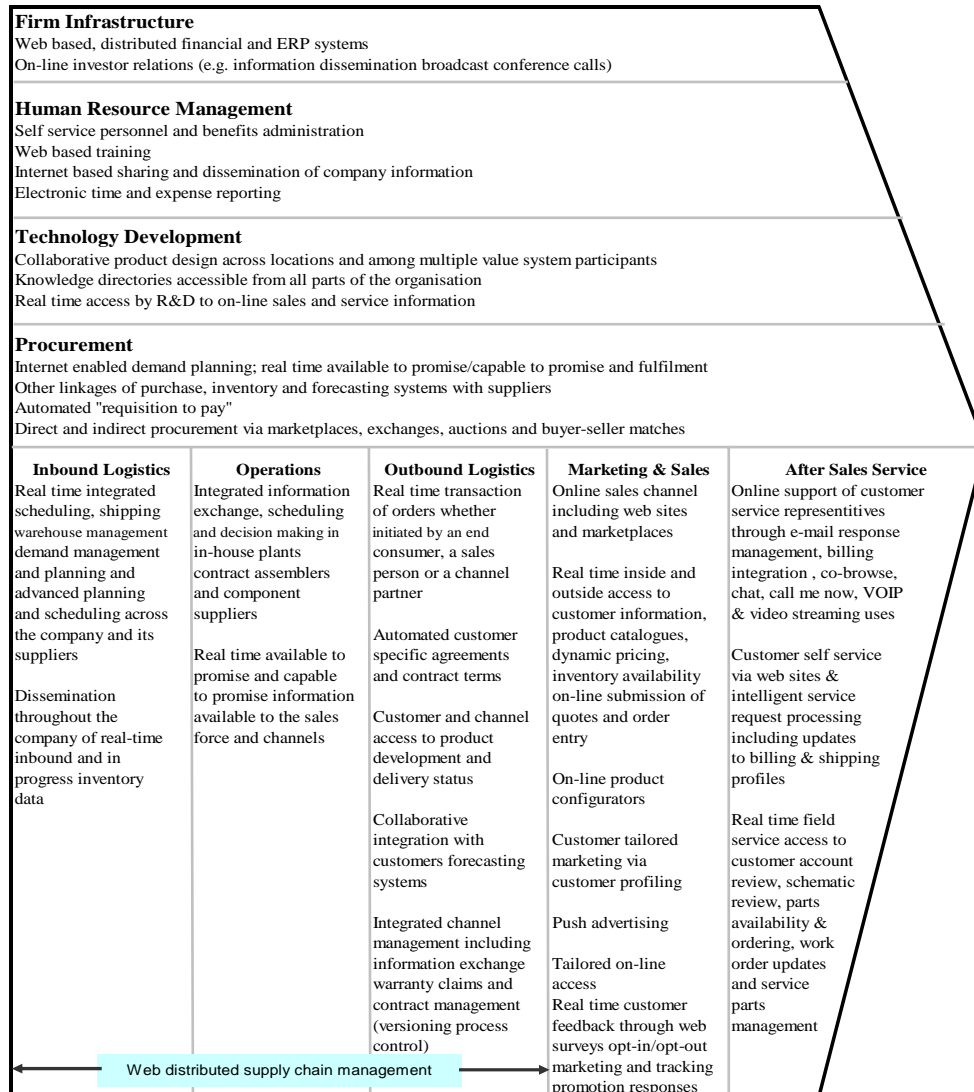
In Kenya’s Economic Recovery Plan (The Republic of Kenya 2004) the Kenyan Government has realised that in order for the economy to grow and develop, ICT infrastructure should be developed and ICT’s potential fully realised. The Government is working towards closing the ICT usage gap between Kenya and other countries and trying to use ICT to maximum advantage. Wu (2001) and other similar studies show that the adoption of e-business in Corporate America

has had a positive impact on organisations' in terms of increased efficiencies and competitive advantages brought about by changes in the speed of transactions.

2.4.2.2 Changes in employee productivity

Employee productivity improves as employees begin using e-business capabilities, eliminating paperwork and improving information accuracy, leading ultimately to more time for the employees to think strategically (Supply Chain Council 2002; Wu 2001). In the context of this study, increased employee productivity is examined together with Porter's value chain (see Figure 4) as this explains changes in employee productivity because of adopting e-business.

Figure 4: Changes in employee productivity in the value chain due to Internet usage



Source: Michael Porter (2001).

Figure 4 shows that traditional value chains are virtualised because e-business systems are able to order products online without the intervention of the purchasing department, while payment can be made electronically. The primary activities in Porter's value chain namely inbound logistics, operations, outbound logistics, marketing and sales are redefined in terms of how they are carried out and interact with each other because technology provides more sophisticated methods of conducting business transactions (Walton and Miller 1995; Porter 1980). The use of IT and e-business systems increases employee productivity because whole portions of the value chain are removed, redefined and disintermediated because the Internet optimises all internal and external activities through greater collaboration (Dobbs 1999).

There are numerous studies confirming the extent of the benefits of improvements in employee productivity due to e-business applications. In an empirical study of 124 companies across 11 industries in the USA, Comergent Technologies in 2005 looked at e-business practices and examined current and future e-business plans of these companies. The study has revealed a great deal of diversity in the forces driving e-business, e-business spending and e-business expansion plans. Despite these diversities, the key findings of the survey are that e-business has a profound impact on companies and specifically, e-business improves employee productivity through automation and process integration with partners and suppliers.

Most of the literature gives attention to organisations in the more developed parts of the world, where advances in e-business are quite different from those of lesser-developed countries such as Kenya. However, the results of e-business adoption on employee productivity are considered similar in both locations because e-business has had positive impacts on employee productivity in companies in Kenya as numerous Kenyan newspaper articles in ICT columns in 2006 have discussed (www.nationmedia.com). In addition to this, in the author's current company increased employee productivity due to e-business has led to higher efficiencies of the organisation giving it a competitive edge over its rivals.

2.4.3 Systems development efficiency

Systems development is the development of new and more efficient systems enabling real-time information transfer between organisations leading to revenue enhancements and cost savings. A few examples of such systems include Enterprise Resource Planning Systems (ERP), Customer Relationship Management Systems (CRM), Supply Chain Management Systems (SCM), Electronic Payment and Electronic Banking Systems, E-Brokerage Systems, Hospitality and Travel Reservation Systems and other Information Systems. Organisations are spending millions of dollars on such systems in order to have integration between them and their trading partners to yield larger cost savings and operational efficiencies in the longer-term.

Phan (2002) discusses the experience of Intel Corporation's (Intel) revenue enhancement and cost savings resulting from systems developments and enhancements. In order to improve their own efficiency, Intel furthered its systems and helped connect its trading partners through the Internet to its order management and information delivery systems. By providing this access, Intel allowed its customers to know more about its current and future products and enabled them to order and pay for the products on-line. This access made customers feel more connected because it allowed them access to more of Intel's resources, eventually leading to closer business relationships. Because of these systems developments, numerous operational efficiencies have resulted. These efficiencies have brought multiple benefits to Intel including revenue enhancement and cost savings successes. Over US\$ 1 billion in revenues was transacted in the first 15 days of the operations of the system and also resulted in the elimination of most faxes to customers worldwide. For partners in Taiwan alone, this eliminated 45,000 faxes per quarter producing significant cost savings in reduced international long distance phone costs. In addition to Intel, there are many more other organisations successfully doing the same including GlaxoSmithKline, Hewlett Packard, Novo Nordisk, Rolls Royce to mention a few (www.purchasing.com).

Webber (1999) states that as competition increases, informational systems will become critical to gaining competitive advantages. E-business systems are used in building customer relationships and loyalty. Companies selling via the Internet

are asking themselves “how loyal their customers are and will they return to their site after their first experience.” This is because lasting and trusting relationships are profitable and it is no longer enough to create added value in single transactions on a few occasions but there is need to develop this over a long term. This is influenced by the level of support the company is capable of providing the customer pre-sale, during and post-sale. This support is made available by e-business systems. Customer loyalty programs by businesses are leading to customer retention, building and sustaining customer loyalty and market share. Customers shopping lists saved on e-business systems enable organisations analyse patterns of past purchasing making possible for them to provide customers with incentives such as special offers and more information (Varian 1999). This has positive impacts on customer retention and loyalty. Nakumatt, a leading supermarket chain in Kenya, uses customer loyalty programs heavily and has gained massive advantages over its rivals.

In Kenya, the Government, through its Economic Recovery Plan of 2003 has stated that it needs to take measures to develop the entire system of investment-related offices including the immigration, customs, security vetting services, lands office, and registrar of companies (among others) to ensure that investors and the Investment Authority have real time access to relevant data and information. The Kenyan Government also anticipates that by doing so, it will reduce costs of administration and communication, make savings on the wage bill and more efficiently run its various Ministries, parastatals and departments (The Republic of Kenya 2004). Unfortunately, the infrastructure and capabilities needed to support the more sophisticated forms of real-time collaboration among multiple participants in Kenya are still being developed although considerable progress has been made in the last few years. Developing and implementing them will require companies and Government to invest large amounts of time and resources. The same would be true for businesses that venture into developing systems in order to increase competitiveness.

2.5 Informational benefits

E-business enables the transfer of large amounts of information quickly and efficiently leading to cost reductions for standard services. Informational benefits relate to faster retrieval, delivery and easier access to information and, the ability

of the organisation to utilise this information in an effective manner in support of operational and strategic activities. Informational benefits are of three types, information access, information quality and information flexibility.

2.5.1 Informational access

E-business allows organisations and their trading partners' easy and quick access to real-time data enabling them to make informed decisions. Examples of such real-time data include; data on levels of demand, inventory data, production schedules, plant capacities and utilisation data, shipment data and banking data. These data help trading partners better manage and coordinate the entire business process. The term 24/7 information is information access and distribution to business partners on a 24-hour per day basis seven days a week. A good example of this is Intel, whose customers in almost 30 countries have information on product availability, production and inventory status and who also receive marketing and sales information and obtain customer support and feedback all in real-time.

Anderson and Jakobsson (1998) state that e-business permits the supply of vast research and internal information to business partners, and eras of information-rich environments are developed. Informational access on every aspect of the different processes of the organisation to its business partners from product specifications to electronic tracking of shipments is now a competitive necessity. In an empirical study of 250 IT managers, Apigian et al., (2005) have found that by access to real-time information and communication with suppliers, customers can receive instantaneous feedback on any customised or complementary products or services leading to enhanced relationships. Further, real-time information access leads to time reduction and eventually to cost reduction of operations.

Wu (2001) shows that competitive advantage is created when customer databases are connected to supplier databases. Not only will customers be able to track orders online but they will also be able to monitor their orders leading to lower delays in order-fulfilment. Suppliers will have access to the demand of the product and will be able to plan for raw material supplies well in advance making the whole supply chain seamless. A good example is Dell Corporation

(Dell), which sells computers through its Website. Dell's customers order computers via its Website and as soon as orders are received, Dell's systems relay data to its suppliers of the types of components required and by when, in order to fulfil the order and to replenish stock levels. Thus, real-time information on sales and procurement is available to all participants of the supply and demand chains. Customers can track the progress of their orders from the Dell factory to their doorsteps whilst suppliers know exactly by when and what raw materials and components to ship to Dell's factory. This differentiates Dell from its rivals as e-business has allowed it to jump over parts of the traditional supply channel. Dell also does not rely on wholesalers and retailers to deliver its products to consumers. Instead, delivery is done directly to customers. This is because Dell also has e-business contacts with third-party providers such as FedEx and UPS, which provide fast, efficient delivery because they have superior logistical expertise and economies of scale in distribution (Bakos 1998). Automated orders are released to these third party providers once the products are ready for shipment. E-business open informational access has given Dell and its supply-chain partner's considerable competitive advantage over rivals making Dell one of the most profitable companies in its industry.

2.5.2 Information quality

E-business makes information available more useful, accurate and reliable and hence high quality (Mirani and Lederer 1998). Due to information quality, more informed operational and strategic decisions are made. In a study carried out by Bidgoli (1999), it was found that the e-business and data exchange via electronic means enhances competitiveness of organisations since quality data for decision-making is provided.

In their study Bloch et al., (1996) show that intelligence built into e-business systems enhances customer service and increases organisational efficiency and competitiveness. E-intelligence is the term used to show the quality of information that is available to trading partners in organisational supply and demand chains through e-business activity. These quality data enables users to make sound decisions in negotiations, leading to improved results. Such quality information/intelligence has enabled seven of the top 10 financial services companies on the Fortune 500 list to increase customer profitability,

enhance customer satisfaction, manage risk and reduce operating costs (www.microstrategy.com).

Cloete, Courtney and Flintz (2002), in their study of small businesses in South Africa, however report that although e-business and Internet technologies benefit organisations in numerous ways one of which was to provide them with quality information, there is a perception by SME owners of a lack of business benefit. The SME owners believe e-business to be irrelevant because they already focus heavily on customer and supplier relationship management without the use of sophisticated e-business systems for quality information. They felt it was inappropriate to use e-business until the majority of their customers and suppliers used the same. They also had concerns about e-business security and legal and liability matters and felt that the costs involved with e-business are high and that there is limited knowledge of e-business amongst South African companies.

2.5.3 Information flexibility

E-business systems allow information to be easily up-dated, stored, retrieved, distributed or transmitted, disseminated and formatted. E-business systems therefore enable the information to be easily applied by organisations to suit their needs. This information flexibility in real-time between organisations and their customers and suppliers in-turn influences the degree to which organisations may respond to internal and external changes. This flexibility also allows them to develop new strategies in order to gain new and further efficiencies and competitive advantages.

Instead of spending huge amounts of time retrieving and preparing the information, employees are now analysing the data in a bid to improve organisational competitiveness hence increasing employee efficiencies. Empirical evidence obtained by Moodley and Morris (2004) researching leading garment manufacturing companies in South Africa shows that whilst e-business is less personal, it has several characteristics. It is potentially very valuable because e-business information is considerably flexible, is at low cost, able to being accessed at anytime through effective Internet and system links all of which have far greater interactivity and search capability than traditional information. This flexibility and ease of accessibility and usage improves

business efficiency and competitiveness because quicker decision-making is initiated.

Tang et al., (2004), however suggest that despite the great increase in flexibility of the information, current operational systems such as ERP's or even Advanced Planning Systems (APS) do not analyse risk. Additionally they fail to identify changes that highlight market discontinuity and the degree of those changes, failing to predict the impact of these changes on the performance of members of the supply chain.

In conclusion, the literature on informational flexibility suggests that e-business information flexibility increases the organisations ability to respond quickly to customer demand, increases accuracy and uniformity, makes operations more competitive by increasing productivity, decreases costs and leads to increased market share in addition to other strategic opportunities. However, this flexibility does not allow for risk and analysis of the future.

2.6 Strategic benefits

Strategic benefits are long-term benefits linked to the economic environment and to organisational capability to exploit the environment to its competitive advantage. Mirani and Lederer (1998) show that strategic benefits are those that change an organisation's products and ways of operating, including competitive advantages brought about by realignment and improved customer relations.

2.6.1 Competitive advantage

As already defined, competitive advantage is an organisation's resource base that is not easily acquired or imitated and will be sustainable if the organisation's structure promotes the effective development and deployment of those resources.

The author has used Sethi and King's (1994) model "CAPITA – Competitive Advantage Provided by Information Technology Application" to demonstrate individual aspects of competitive advantage benefits of e-business and most of these complement what has already been discussed. This model has been developed from field surveys with 185 top information systems executives. The different aspects of competitive advantage that this model analyses are Efficiency, Functionality, Threat, Preemptiveness and Synergy.

2.6.1.1 Efficiency

Efficiency to achieve competitive advantage has so far been examined under communication efficiency, business efficiency and systems development efficiency. The results are cost reductions and changes in the ways employees work after implementing e-business. It is suggested from the literature that e-business increases efficiency by substantially reducing production and transaction costs. Empirical studies by Brynjolfsson and Kahin (2000) and Lapidus (2000) supports the above and show that procurement costs are significantly reduced by using e-business. The effect of e-business on the cost of car production in the USA was to reduce the cost of a car by US\$ 3,650 or 14 per cent of total costs. Other examples include British Telecommunications that predicts massive gains from moving to e-procurement. Its average cost of processing each transaction will fall by 90 per cent, from US\$ 80 to just US\$ 8 and will result in direct savings of US\$ 1 billion, out of a total US\$ 9 billion procurement budget. Chrysler Corporation in the USA is another example of production cost reduction where Mukhopadhyay et al., (1995) found that e-business reduced the cost of manufacturing a car by US\$ 100. This cost saving is significant given the total number of cars produced.

E-business also offers significant opportunities for reducing operating costs for service firms. Yelkur and DaCosta (2001), in their study for Andersen Consulting provide examples of improved transaction efficiency for firms in the travel and financial services industries. They found that the average cost of a banking transaction at a branch is US\$ 1.07 whilst using an ATM reduced this to US\$ 0.27. Performing this same transaction over the Internet costs a mere US\$ 0.01. These efficiencies result from transaction cost reduction and changes to employee methods of working. Many banks in Kenya are now moving rapidly towards the concepts of e-banking⁽¹⁾ and more recently m-banking⁽²⁾.

⁽¹⁾ Electronic banking is banking based on the Internet and Internet-on-TV technology driven channels enabling access to retail banking services such as electronic bill payment, interactive on-line (therefore always up-to-date) bank statements with statistics or information any place at any time.

⁽²⁾ Mobile banking is the same as e-banking except that the banking is based on mobile telephony technology driven channels.

E-banking has taken off in Kenya at unprecedented rates because it has reduced costs, increased efficiencies and saved time for both the banks and their customers. Yelkur and DaCosta (2001) further show that typical reservations made through a travel agent costs US\$ 10.00, but over the Internet, this transaction costs only US\$ 2.00.

2.6.1.2 Functionality

This is complementary to Systems Development Efficiency already covered above. Functionality is a key factor for companies using e-business technology to gaining competitive advantage. Comergent Technologies (2005) in their empirical study show that many companies are now embracing e-business and those that have already implemented e-business to a small extent are now enhancing their e-business functionality. The study shows that those organisations not implementing e-business or only doing so to a limited extent run the risk of falling behind their competitors and losing competitive advantage. The study also shows that the main reasons for implementing functionality of e-business systems were to make business easier for over 70% customers, followed by providing customer and partner self-service, increasing revenue and reducing ordering and customer support costs. Additionally, when respondents were asked to rate their e-business capabilities relative to competitors, 35% considered themselves to be ahead of the competition, the largest percentage considered themselves to be on par with the competition whilst 23% believed they had fallen behind. A few companies were seeking e-business leadership within their industries, but even fewer were content to lag behind. Companies that had failed to keep e-business activity pace with their competitors had reason to be concerned because e-business leaders continue to expand functionality making it difficult for late adopters to retain customers accustomed to using the Internet to conduct business.

Bordoloi (2000) however suggests that having great functionality does not guarantee competitive advantage because e-business solutions have their limitations. Such limitations include lack of legal regulation, security concerns and infrastructural limitations. Kenyan businesses in the early parts of the 2000's had infrastructural limitations hence adoption levels were lower compared to other North and South African countries where significant e-business activity is

now taking place. When an organisation uses the Internet to engage in e-business, it exposes itself to security risks during data transfer, during payments and receipts for transactions and risk from viruses even though privacy and other protection measures are constantly being improved. Other limitations include software still evolving and changing rapidly and it therefore becomes difficult to integrate e-business software with some existing applications and databases. Benaroch (2002) suggests that the risk that the original functionality of e-business solutions is wrongly designed also exists making the anticipated benefits from e-business applications unrealisable. This increases the costs of development and modification of e-business systems.

2.6.1.3 Threat

Threat-based benefits are those that allow organisations using e-business systems to threaten the position of current suppliers, customers and competitors. E-business threatens and reduces supplier power because information available on the Internet allows customers to dictate prices. Better quality information also reduces barriers to entry and lowers entry and transaction costs. Customer organisations are able to obtain better access to information, and customer driven pricing is possible and all with the minimum of legislation and regulation. This is because e-business creates perfect competition (Timmers 1999).

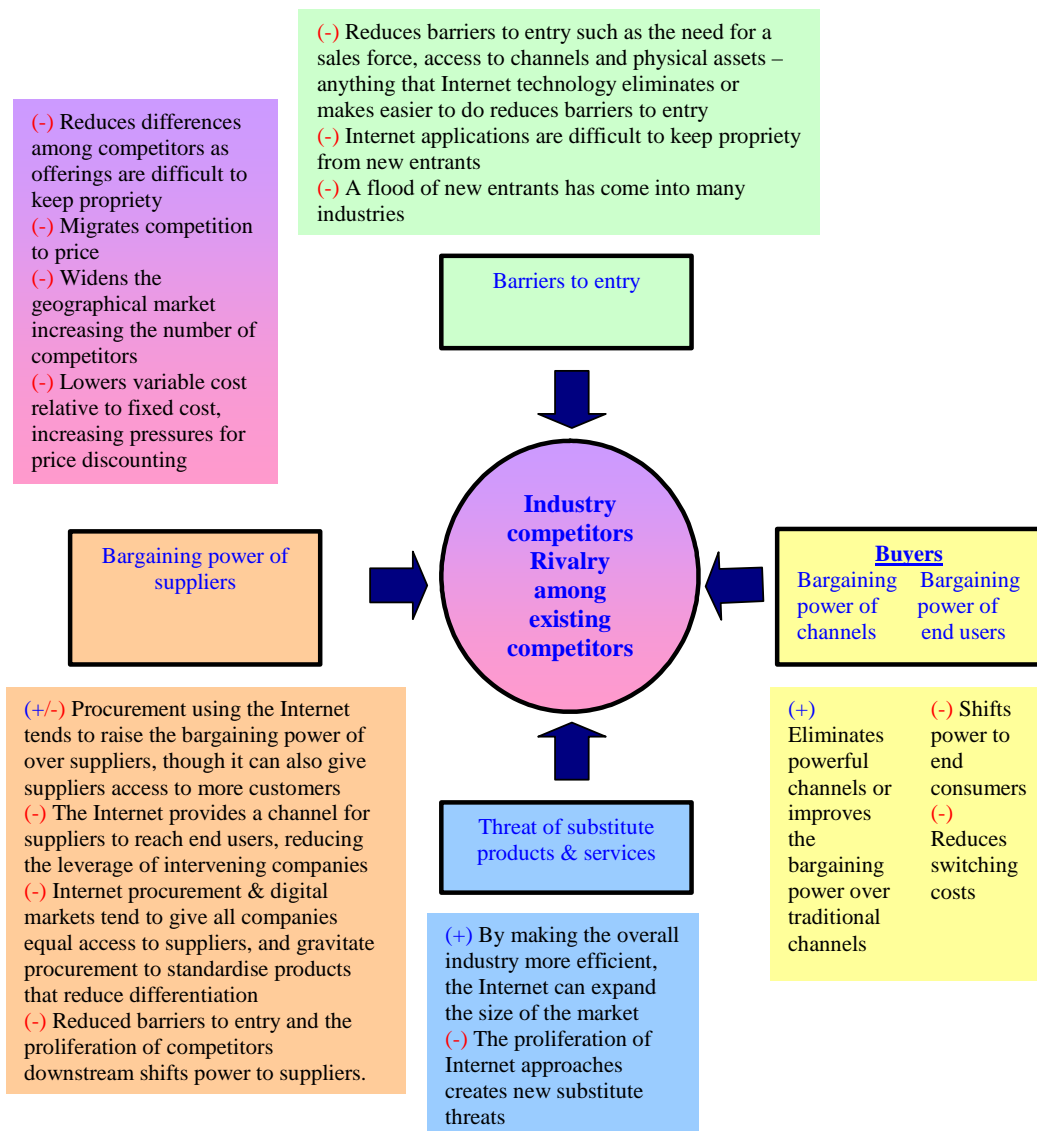
Daniel and Myers (2000) found that the overall reason for the adoption of e-business by SME's was to enhance customer relationships either through improving customer services, developing the brand, seeking out new customers or to allow for open communication systems with customers. The notion was that e-business better understands how competitive differentiation can be achieved by developing superior customer relationships. Kalakota and Robinson (2001) have similar views claiming that with e-business, organisations can become the best, most recognisable and the cheapest because e-business creates opportunities for a combination of differentiation and cost leadership strategies.

Evans and Smith (2004) show that because the Internet gives access to a wide variety of information sources, this allows the organisation numerous sources of power and the ability to threaten its suppliers, customers and trading partners as follows:

- i. The power and the ability to locate, evaluate and choose from alternative suppliers (supplier selection);
- ii. The power over customer and supplier switching costs;
- iii. The ability to threaten vertical integration (both forward and backward);
- iv. The power and the ability to evaluate and choose alternative customers (customer selection).

The above points are components of Porter's five forces model and depending from which angle one looks at the model, these forces could negatively affect competitive advantage. This is illustrated in Figure 5.

Figure 5: E-business & Porter's five forces



Source: Michael Porter (2001).

The Figure 5 shows the positive (+) and negative effects (-) that the Internet and therefore e-business has on each of the five forces. Porter (2001) concludes that the Internet is dangerous for competitive advantage because it lowers barriers to entry, supports price competition enlarges geographical markets, making it easier to copy technical means used to secure any sort of competitive advantage. This makes e-business activity less attractive due to a shift from limited information-sharing traditional environments to rich information-sharing e-business and almost perfect competition environments where barriers to entry are reduced, transaction costs lowered, customers able to access better information, customer driven pricing possible and all this with the minimum amount of legislation and regulation. Additionally, Porter states that the Internet tends to weaken industry profitability without providing propriety operational advantages.

2.6.1.4 Preemptiveness

Preemptiveness is the early adoption of ICT and e-business to assist with the take-over of markets and control supply chains. This too is complementary to prior literature and preemptiveness benefits are covered under systems development efficiency and functionality benefits whereby barriers to competitors are created by adopting ICT. Fruhling and Digman (2000) show that preemptive competitive advantage strategies are those that attempt to disrupt the “normal” course of industry events and in the process change the rules to create new industry conditions to the disadvantage of the competition. These strategies may be possible if competitors are farther behind technologically.

In their study, Evans and Smith (2004) found that e-business competitive advantage preemptiveness enables the technology to provide an organisation with unique access to its suppliers, brokers, distributors and retailers. This forces its competitors into a disadvantaged position. This preemptiveness also influences the development of industry standards and practices and offers barriers against imitations and against patents, copyrights and trade secrets.

Benaroch (2002) however shows that e-business comes with the risk that competitors will make the preemptive move, or simply copy the technologies and improve and develop them into more sophisticated applications. This therefore

would give rise to the possibility that the organisation might lose part or all of the investment opportunity.

2.6.1.5 Synergy

Evans and Smith (2004) suggest that e-business competitive advantage synergy is a function of the alignment of e-business systems and applications with the firm's business strategy and its marketing policies. Top management support, adequate financial and organisational resources are required to continually update and enhance e-business applications. Thus, while alignment makes it difficult for competitors to benefit from copying the application, continual innovation makes copying less effective. The above is complementary to the literature in preceding sections above.

Ohlen (2002), in an empirical study of 478 participants in Germany shows that 49.7 percent of respondents felt that synergistic gains were an important factor in influencing e-business adoption.

2.6.2 Alignment

Alignment is the linking of an organisation's IT systems and applications externally with its trading partners to create better and stronger partnerships and internally between its own business operations and business goals. Mirani and Lederer (1998) suggests that in order to sustain competitive advantage in an organisation, there has to be complete alignment of the different components of e-business systems enabling them to respond more quickly to changes in the business environment. Apigian et al., (2005) in their study in the USA have found that alignment creates e-business benefits that have become the hallmark of Internet deployment and lead the business to be more efficient and competitive.

Discussions and examples have already been provided that proper alignment between customer and supplier applications/databases allows customers to track and monitor their orders avoiding delays and mistakes in orders and shipments and suppliers knowing exactly what and when to supply. Wise and Morrison (2000) suggest that e-business has revolutionised and transformed financial markets and brought about numerous efficiencies and competitive advantages

through proper alignment and linking of buyers and sellers. This has positive effects on satisfaction levels, costs and relationship building even though the adoption of e-business is not an easy change, as many skills and resources are required but this change is essential to future success of organisations in the globalised world.

2.6.3 Customer relations

This again is complementary to earlier literature and it has been shown that effective e-business solutions can help manage customer relationships, maximise customer satisfaction levels, reduce operating costs whilst enhancing revenues of organisations. Sudhir (2004) cites a Mercer Corporation survey which found out that establishing and maintaining customer relationship would be the single and greatest competitive advantage for companies in the 21st century. Shoemaker (2001) confirms these findings adding that developing and maintaining e-business customer relations management tools leads to sustainable competitive advantages for organisations. The objective of e-business in customer relations is to create a balance between value to a company and its shareholders and value to customers so that both are in a win-win situation. This is achieved by tailoring products and services to meet the needs and understandings of the customer.

In their study of 352 senior managers, Day and Hubbard (2002) found that 30 percent of the respondents saw e-business as a major opportunity whilst 1 percent saw it as a major threat. Overall, the study found that e-business offers opportunities to reduce customer service costs, while tightening customer relationships by encouraging dialogue, linking more parts of customer contact and enabling the personalisation of communication. Fears of channel conflict, price wars and new business models disrupting their markets have been overshadowed by these opportunities.

On the other hand, Porter (2001) and Phau and Poon (2000) suggest that despite huge outlays on advertising, most dotcom brands have not approached the power of established brands, achieving only a modest impact on customer loyalty and creating few barriers to entry. Customers already appear to be losing interest in services because the savings provided often outweigh the hassles involved. As customers become more familiar with the technology, their loyalty to their initial

supplier will also decline as they realise that the costs of switching are low. Moodley (2002) also shows that there does not appear to be long-term loyalty between a retailer and its suppliers, and as a result, retailers often engage in one-time or occasional transactions with various suppliers. As there are millions of options available to users, they may switch on to a new site in a matter of seconds and purchase a similar product from traders who they may have had no time to research the merits and downfalls of. Thus even with the most well developed of systems; e-business does not completely ensure customer loyalty.

In their study of 82 family and 370 non-family businesses, Cooper et al., (2005) have concluded that family businesses did not rank customer relationship e-business tools as important to their business success as they already viewed customer service as a key criteria for business success. This confirms previous literature and studies by Cloete, Courtney and Flintz (2002) in their discussion of customer relations and small businesses in South Africa.

2.6.4 Summary

Three main benefits of e-business (transactional, informational and strategic) have been discussed. Table 1 summarises the literature review, which was conducted on academic journals, trade journals and empirical and non-empirical studies. This lists the 33 potential anticipated benefits (many which complement each other) of e-business and information systems along with their original references.

Table 1: The benefits of e-business and information systems

Benefit and original references
Enhance competitiveness or create strategic advantage (Lay 1985; Parker and Benson 1997; McGugan 1987; Sullivan-Trainor 1989 and 1991)
Enable easier access to information (Orli and Tom 1987; King and Schrems 1987)
Provide new products or services to customers (Sullivan-Trainor 1989)
Increases the flexibility of information requests (Orli and Tom 1987; King and Schrems 1987)
Improved customer relations (Orli and Tom 1987; Rivard and Kaiser 1989)

Enhance the credibility and prestige of the organisation (Orli and Tom 1987)
Provide better products or services to customers (Millar and Friesen 1986; Parker and Benson 1987; Sullivan-Trainor 1989)
Increase volume of information output (Rivard and Kaiser 1989)
Align well with stated organisation goals (Parker and Benson 1987)
Enable the organisation to response more quickly to change (Lederer and Mirani 1995)
Enable faster retrieval or delivery of information or reports (Sullivan-Trainor 1989; Rivard and Kaiser 1989)
Helps establish useful linkages with other organisation (Parker and Benson 1987)
Save money by reducing communication costs (Smith 1983)
Change the way the organisation conducts business (Parker and Benson 1987; Sullivan-Trainor 1989)
Increase returns on financial assets (Lederer and Mirani 1995)
Enhance employee productivity or business efficiency (McGugan 1987; Sullivan-Trainor 1989 and 1991; Rivard and Kaiser 1989; King and Schrems 1987; Smith 1983)
Speed up transactions or shorten product cycles (Parker and Benson 1987; Orli and Tom 1987)
Improve the accuracy or reliability of information (Orli and Tom 1987; Rivard and Kaiser 1989; King and Schrems 1987; Vaid-Raizada 1983)
Present information in a more concise manner or better format (Rivard and Kaiser 1989)
Enable the organisation to catch up with competitors (Parker and Benson 1987)
Allow previously infeasible applications to be implemented (Sullivan-Trainor 1991; Orli and Tom 1987)
Improve management information for strategic planning (Parker and Benson 1987; King and Schrems 1987)
Improve information for management control (Parker and Benson 1987; Orli and Tom 1987; King and Schrems 1987)
Improve information for operational control (Parker and Benson 1987)
Allow other applications to be developed faster (Smith 1983)
Provide the ability to perform maintenance faster (Lederer and Mirani 1995)

Saves money by avoiding the need to increase the work force (Smith 1983)
Save money by reducing travel costs (Smith 1983)
Save money by reducing the work force (Parker and Benson 1987; Sullivan-Trainor 1991; Orli and Tom 1987; Rivard and Kaiser 1989)
Saves money by reducing system modification or enhancement cost (Smith 1983; Vaid-Raizada 1983)
Saves money by reducing hardware use (Orli and Tom 1987)
Provide greater data or software security (Vaid-Raizada 1983)
Facilitates organisation adherence to Government regulations (Lederer and Mirani 1995)

Source: Lederer and Mirani (1995).

Whereas current e-business literature focuses on the USA, Europe and the more developed parts of the world including South Africa, there was little or no empirical data encompassing Sub Saharan Africa countries including Kenya. It is this gap that motivated this study.

The literature indicates that e-business is tremendously influencing business worldwide and will continue to play an important role. The literature provides a starting point for this study by identifying factors that shed light on e-business and how it contributes to gains and comprehensive benefits.

The literature reviewed clearly shows the benefits of e-business as being improvements in; revenues, efficiencies, competitiveness, and profits. A few disadvantages of e-business have also been identified but the author can comprehensively say that the benefits of e-business overshadow the disadvantages.

Chapter 3

Field Research, Data Presentation and Analysis

3.1 Introduction

Not a lot of empirical work is available on e-business, its benefits, disadvantages and reasons for non-adoption in Kenya and in parts of sub Saharan Africa. The field research undertaken will attempt to close these gaps.

This chapter is divided into four main subheadings: research objectives, research approach, research methodology and the evaluation and presentation of the field study results.

3.2 Research objectives

The purpose of this study was to attempt to answer the question “*Will e-business enhance efficiencies and competitive advantages of Kenyan organisations*”.

This literature raised a number of key questions that were developed and were tested empirically in order to answer the research query. These questions include cost saving, increased efficiency, revenue enhancing and productivity improving opportunities that e-business offers. These questions are included in the questionnaire (Appendix 2) under question number 8.

During the literature search, reasons for non-adoption were also identified. Because of these, organisations are not implementing and using e-business. This study also looks at the reasons for non-adoption. Reasons for non-adoption are included in the questionnaire under question number 9.

Other questions raised were the current e-business status of the organisations and whether they were willing to adopt or advance their current e-business usage levels. The role organisations felt the Kenyan Government was playing in driving ICT as a whole including e-business have also been covered.

By reviewing answers to the questionnaire to the conclusions from the literature review, will help readers and future researchers understand the main factors

contributing towards increased efficiencies and competitive advantages that e-business brings. In addition to this, reasons for non-adoption of e-business in the Kenya will also be recognised.

3.3 Research approach

A questionnaire was sent to 325 companies randomly selected from the latest directory of the Kenya Association of Manufacturers and the Yellow pages of Kenya. The population included only those companies that had provided e-mail addresses. No other constraints were placed on the population, such as industry sector or geographic location. Indeed it was preferred that a wide spread of organisations be achieved in order to ensure that the results obtained have the widest applicability amongst Kenyan organisations.

In order to collaborate data from the literature and the quantitative research, and to bring about greater understanding of the background and benefits of e-business and the reasons for non-adoption, personal interviews were conducted with five executives of four large companies. Interviewee influence and support of business strategy is high, they were able to generalise the behaviour of their companies. As a result, the author obtained closer insights as to how the executives' perceived e-business had and would affect their companies. The personal interview questions (Appendix 3) were similar to those of the questionnaire except that they were slightly more detailed.

3.4 Methodology

3.4.1 Quantitative research

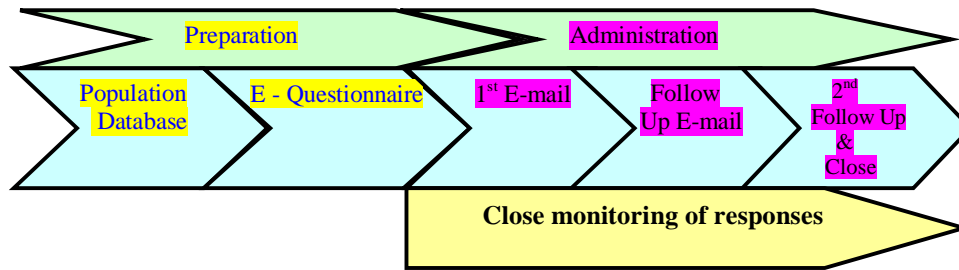
The questionnaire, which included a short introduction explaining the purpose of the survey (Appendix 4), was sent via e-mail. It was a relatively straightforward questionnaire developed on a five-point Likert scale and kept simple to encourage completion. The questionnaire was divided into five sections:

- i. An introduction including a fact-finding stage about the company, its current e-business adoption status and attitudes towards the Internet;
- ii. Research on efficiencies and competitive advantage factors arising due to e-business;
- iii. Reasons for non-adoption of e-business;

- iv. The role the companies felt that the Kenyan Government was taking in developing e-business in Kenya;
- v. Any further comments.

The questionnaire was administered in three phases.

Figure 6: Questionnaire administration



Source: Author

3.4.1.1 First phase

An initial e-mail (Appendix 4) was sent out to 325 companies requesting whether the recipient would be willing to take part in the survey. The total number of initial e-mails delivered to recipients stood at 246 and this constituted the overall usable sample. Thirty-seven companies responded within two days and expressed willingness to take part in the survey. They were immediately e-mailed the questionnaire. Ultimately twenty-two completed questionnaires were received thus representing a return rate of 59%.

One of the difficulties in receiving responses in this phase was e-mail delivery problems caused by a change of the respondents e-mail address and by a change of the ISP. Seventy-nine companies had changed either their e-mail addresses or their ISPs, and to a lesser extent, the individual to whom the e-mail was addressed did not work in the company anymore. Anecdotal evidence gained from telephone conversations with 19 randomly selected companies (mainly IT Managers of the companies) whose e-mails had bounced and returned undelivered indicated:

- i. Dissatisfaction with ISP services (both technical and customer service related) was primarily blamed for ISP change, with lower connection and

monthly fees being nominated as another reason for switching to an alternative provider,

- ii. The staff member to whom the e-mail was directed no longer worked with the company,
- iii. There were also positive reasons for changes with six companies' acknowledging that Internet commerce has become such an important part of their business that they needed to register their own domain name.

3.4.1.2 Second phase

A reminder e-mail (Appendix 5) together with the questionnaire was sent to fifteen of those who had not answered the questionnaire sent in the first phase even though they had stated that they would. Eleven of them eventually answered the questionnaire within the week.

3.4.1.3 Third phase

The reminder e-mail together with the questionnaire was also sent to those who had not responded to phase one. Sixty-three responses were received during the third stage of which twenty-two replied favourably and completed the questionnaire. The rest of the sample did not reply to this request.

Finally, fifty-five completed responses were received and this was considered the sample size.

3.4.1.4 Pilot testing

To enhance the reliability and validity of the data collected, the questionnaire was evaluated by pilot testing. Two finance professionals and two IT professionals, co-workers of the author agreed to participate in the survey. These pilot subjects completed the survey and provided useful comments in respect of the wording, the understandability, time taken to completion and the sequence and relevance of the questions. The survey was revised after reviewing the comments of each of these four pilot tests to make it clear and easier for respondents to answer. Besides spelling corrections and adjustments to the wording of the questionnaire, other changes included:

- i. Having respondents complete the questionnaire in a single Microsoft Excel file rather than the originally developed two Microsoft Word files as it took longer to open and save the files in Microsoft Word format,
- ii. Giving instructions on how to open and use the file since some respondent computer security level settings could be set to a high level and therefore the file could not be opened,
- iii. Rephrasing (questions number three and seven) that pilot subjects found confusing because they were not easily understood. This was in the case of the questions having words such as “interactive”, “transactive” and “integrated” Website and the pilot subjects felt that without explanations, this would be difficult to understand.

3.4.2 Qualitative research

Personal interviews were conducted with five executives (who were responsible for business strategy and/or IT in the company). The order of the interviews, name of the interviewee, company name, job-title of the interviewee and details of the company’s business type or industry classification is shown in Table 2.

Table 2: Interview details

Order and Name	Company	Job-title	Industry
1 st - Priyesh Shah	Express Automation and The Kensta Group of Companies	CEO of Express Automation and Director of The Kensta Group of Companies	Information Technology, Retail, Paper and Inks conversion and manufacturing
2 nd - Satish Kumar Sawhney and Sam Kamau	Mabati Rolling Mills	General Manager Finance and Manager IT Systems	Roofing solutions manufacturing
3 rd - Ketul Tanna	General Printers	CEO	Flexible packaging conversion and manufacturing
4 th - Bharat Shah	Kenafric Industries	CEO	Confectionery and Footwear manufacturing

Source: Author

All the companies interviewed are very large to mega companies (large turnovers and employee numbers exceeding 500) that have been in business for over fifteen years. The criteria for selection of the interviewees were that the author wanted to spread the interviewees over top Kenyan companies (as recognised by the Kenya Revenue Authority in its listing of the top corporately governed and tax compliant companies of Kenya for the year 2003) in industries including manufacturing, banking, service, IT and retail. The author had arranged eight executives to be interviewed. Unfortunately, three interviewees cancelled the interviews at the eleventh-hour due to unforeseen circumstances whilst another scheduled the interview for a date and time that proved to be inconvenient to the author. The author could not manage to reschedule the interviews with the same four.

However, the insight gained by interviewing those who had agreed proved to be extremely useful and contributory towards this study. The interviews lasted an average of an hour and half and were conducted between the 10th and 21st of May 2006 at the business premises of the interviewees and at times convenient to them. Interview candidates were initially contacted by telephone and each candidate was sent a list of questions (Appendix 3) as an interview guide prior to the interview to put them into the framework for the interview and for them to be prepared for the questions and the subject to be covered. Hand written notes were taken during each interview and summarised following each meeting. At the end of the interviews, the notes were consolidated into a single set of responses. The upside of applying the personal conversation and interview method were a personal great satisfaction and in the quality of responses, since there were opportunities for the author to continuously present spontaneous and complementary questions related to the subject. The interview method reduced the degree of misinterpretation of respondents because the interview process was more controlled.

As downsides of using this method, the difficulties encountered were arranging interviews, travelling times and subjective responses. Subjective since the responses obtained from the interface communication are based more on individual thought and values rather than the viewpoints of all persons within the organisation.

3.5 Presentation and analysis of the field study results

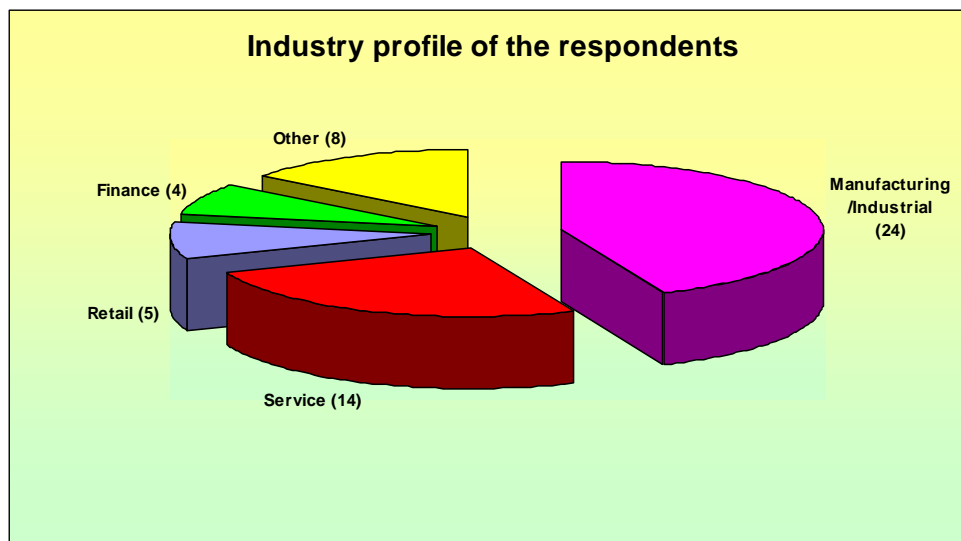
This comprises a general introduction of the respondent population and four other sections, one for current Internet adoption status, one for the benefits of e-business, one for the impediments to its adoption and lastly a section on respondent thoughts of e-business in the future. Respondents' and their organisation names are kept anonymous.

3.5.1 General introduction

3.5.1.1 Industry profile

From the 55 questionnaires received, the diversity of the participating organisations is indicated in Figure 7.

Figure 7: Industry profile

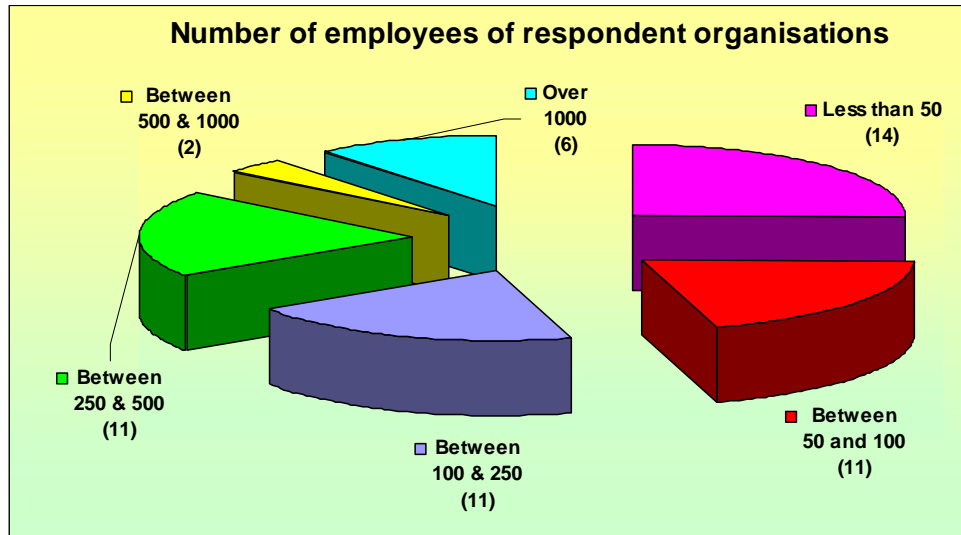


As illustrated in Figure 7, twenty-four businesses were in the manufacturing or industrial sector, fourteen were in the service industry, five in retail, four in finance and eight in other industries.

3.5.1.2 Company size by employee numbers

Analysis of the responses received according to company size is shown in Figure 8.

Figure 8: Company size by employee numbers

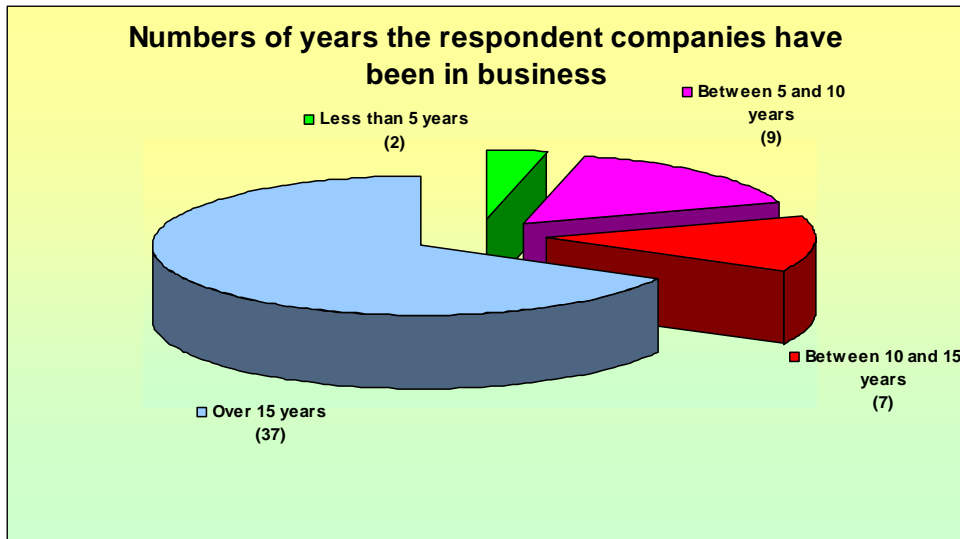


Responses from micro companies with 50 employees or less represented fourteen companies. Small companies taken as employing between 50 and 100 employees were eleven as were medium-sized companies taken as employing between 100 and 250 employees. There were also eleven large companies taken as employing between 250 and 500 employees whilst very large companies taken as employing between 500 and 1000 employees were two. The remaining six responses were from mega companies with over 1000 employees. By company size and industry profile, this also shows a very diverse set of respondents with the majority of companies being micro organisations with less than 50 employees and the least being very large companies with between 500-1000 employees.

3.5.1.3 Numbers of years in business

The rationale for seeking information on number of years the company has been in business is to gauge how much time the company will have had to develop e-business systems and whether the traditional brick and mortar companies (over 10 years old) have adopted and realised the relative advantages and benefits from implementing e-business. Figure 9 shows how long the sampled companies have been in business.

Figure 9: Number of years in business

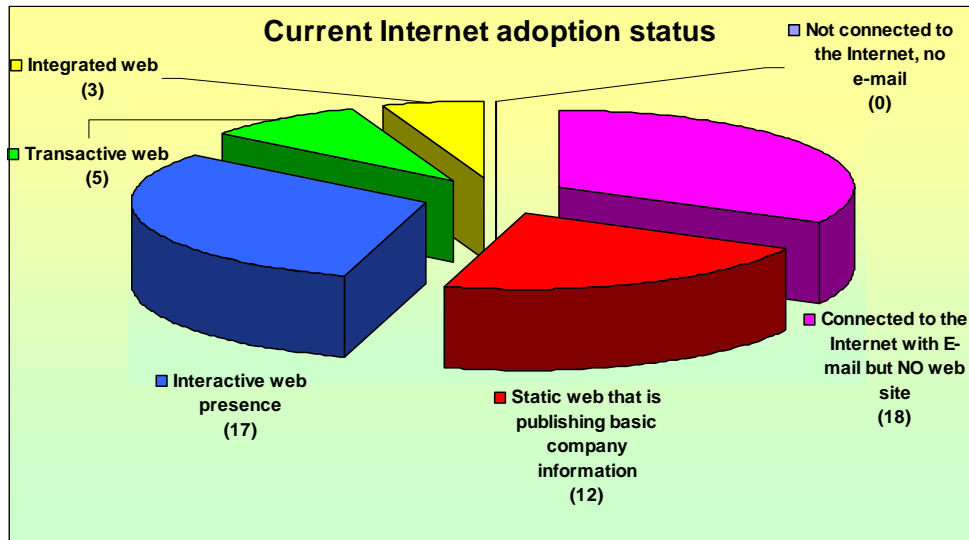


The majority of companies in the sample are established companies with thirty-seven having been in business for over 15 years. Seven have been in business for between 10 and 15 years, nine for between 5 and 10 years and the remaining two been in business for less than five years. This shows that the majority of businesses had come from a brick and mortar background and it is yet to be analysed from this research whether they are or they are not geared towards the adoption of e-business.

3.5.2 Internet adoption status

The purpose of this section is to show the current Internet adoption status of the sample. The respondents were asked to state their current e-business adoption status and to what stage of adoption they were at. Figure 10 shows the Internet adoption status and stage of the sample companies.

Figure 10: Internet adoption status



A high number of companies (thirty-seven in total) have some form of Web presence. These are companies with a static Web presence, an interactive Web presence, a transactive Web presence and those that have an integrated Website.

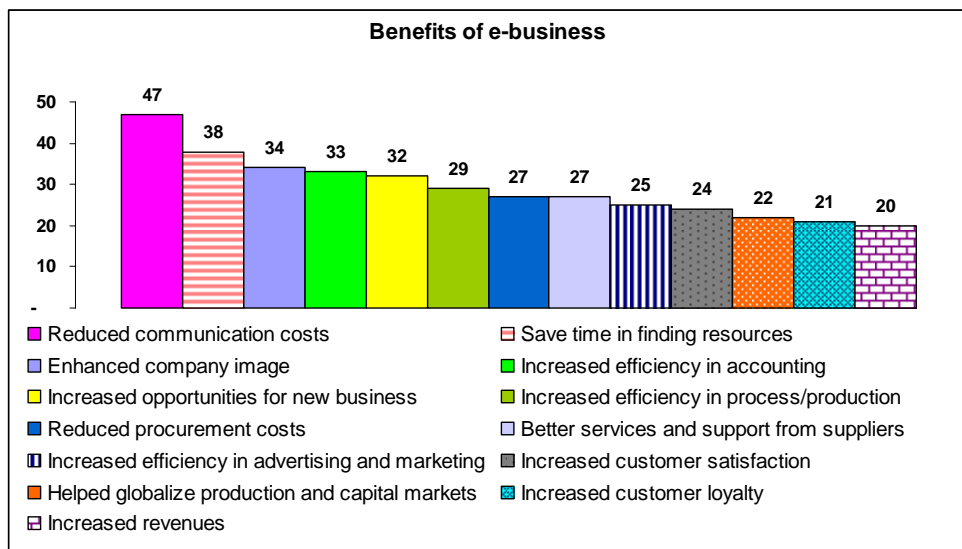
It is interesting that fifteen respondents (out of eighteen) who are currently connected to the Internet but have no Website believe that in one year's time they would have both a transactive and an integrative Website. All (18/18) of the same believe that they would have either a transactive or an integrative Website in one year's time. Even though the majority of companies are from a brick and mortar background (as shown in Figure 9), their Internet and e-business adoption status is above average with five of them already having adopted e-business to advanced stages. From this analysis, it is evident that companies in Kenya have realised the importance of the Internet and e-business by virtue of their adoption and age.

Of the twelve respondents who currently have a static Web presence, only three believe that in one year's time they would have both a transactive and integrative Website. This does not imply that the rest of the respondents were negative towards the Internet. Further analysis has shown that only two of them (2/12) believe that the Internet and e-business will not reshape business in the future whilst the other ten believe that e-business would play an important role in reshaping future business.

3.5.3 Benefits of e-business

The purpose of this section is to analyse the benefits of e-business. Respondents were asked to rate the benefits they had noted since they had implemented e-business.

Figure 11: Benefits of e-business



The examination of the benefits of e-business reveals that the top benefit of e-business is reduced communication costs. This is perceived to have an overwhelming effect on improving firm performance.

E-business benefits in e-procurement, better service and support from suppliers and efficiencies in advertisement and marketing are at moderate levels whilst e-sales, increased customer loyalty and satisfaction experienced because of using e-business are at low levels. This does not necessarily imply that e-sales are not important. Since e-sales and e-procurement require procedures that are more

complicated and require more resources, it may take a while before these will be adopted by Kenyan businesses.

Further analysis shows that those companies that have already adopted advanced forms of e-business including having transactive and an integrated Websites and having e-sales and e-procurement systems (in this sample eight of the fifty-five respondents), the following is seen; three of eight (3/8) have seen increased revenues because of implementing e-business whilst four have seen increased customer loyalty. Five have seen reduced procurement costs, a globalisation of their production and capital markets and increased efficiencies in process and production. Six have noted better services and support from suppliers and increased customer satisfaction whilst seven have seen timesaving in finding resources, increased efficiencies in advertising and marketing and reduced communication costs. Finally, all eight have seen an enhanced company image, increased opportunities for new business and increased efficiencies in accounting. The tabulation of this is shown in Appendix 6. This is quite similar to the results obtained from the analysis of the overall sample of e-business benefits. To conclude therefore, even those companies with advanced e-business capabilities confirm the findings of the overall samples below average rates for e-sales benefits.

3.5.4 Impediments to the adoption of e-business

3.5.4.1 Overall sample

Identification of impediments to the adoption of e-business is potentially useful in assessing what might improve the adoption of e-business in Kenya and increase the impact to associated business change agents. Table 3 reflects the respondents' opinions on particular impediments might be removed in order to increase the adoption of the existing e-commerce technologies and drive the potential development of new technologies. The ranking of the impediments was prepared by scoring the choices to question number 9 as follows:

Choice	Score
i. The reason was very important to our decision not to use e-business	1
ii. The reason was somewhat important to our decision not to use e-business	2
iii. The reason was neither unimportant nor important to our decision not to use e-business	3
iv. The reason was somewhat unimportant to our decision not to use e-business	4
v. The reason was very unimportant to our decision not to use e-business	5

Table 3: The ranking of the impediments of e-business adoption

Impediment	Score	Rank
As our customers are not connected	171	1
Due to high costs of implementation	163	2
Due to security concerns	153	3
Due to technical limitations of our hardware and software	150	4
Due to lack of skilled employees and expertise	146	5
As we are not convinced about its benefits	136	6
As connection and/or usage charges are too high	136	6
As our suppliers are not connected	134	8
As our organisation is too small	129	9
As we feel that it is irrelevant to our business	127	10
Due to legal and liability concerns	124	11

A breakdown of the reasons as to why the overall sample of companies are not adopting and advancing their e-business activities in Kenya reveals that customer non-connectivity affects the overall intensity of adoption/implementation of e-business in Kenya more than any other barrier to adoption. This is the reason why companies even with advanced e-business systems have not noted benefits of e-sales applications. Other major factors include high costs of implementation, security concerns and technical limitations of hardware and software.

This is further analysed into micro-small companies and very large-mega companies to see the results of why different sized organisations are not implementing and adopting e-business. The literature has already identified that due to the size of the company and its operations, different sized businesses have differing reasons for adopting and/or not adopting e-business.

3.5.4.2 Small companies

Eleven respondents out of twenty-five small companies (with less than one hundred employees) state that customers not being connected are the main reasons for non-adoption and advancement of e-business. Nine of them state that e-business involves high implementation costs; therefore, adoption rates have been low. The other obstacles include connection and/or usage charges being too high. Reasons together with company numbers (out of twenty-five in the overall sample) for not adopting and advancing their e-business activity are shown in Table 4.

Table 4: Reasons why small companies are not adopting and advancing their e-business activity

Reasons	Total number of companies
Customers are not connected	11
High costs of implementation	9
Connection and/or usage charges are too high	8
Organisation is too small	8
Technical limitations of hardware and software	7
Security concerns	7
Irrelevant to business	5
Suppliers are not connected	4
Lack of skilled employees and expertise	4
Not convinced about benefits	4
Legal and liability concerns	3

3.5.4.3 Large companies

Security concerns for large companies with over 500 employees (eight companies in total) was the main obstacle to the adoption and advancement of e-business followed by customers and suppliers not connected, a lack of skilled employees and expertise and not being convinced about the benefits of e-business jointly ranking as the second most important reasons for non-adoption. The complete breakdown of the reasons large companies are not adopting e-business is shown in Table 5.

Table 5: Reasons why large companies are not adopting and advancing their e-business activity

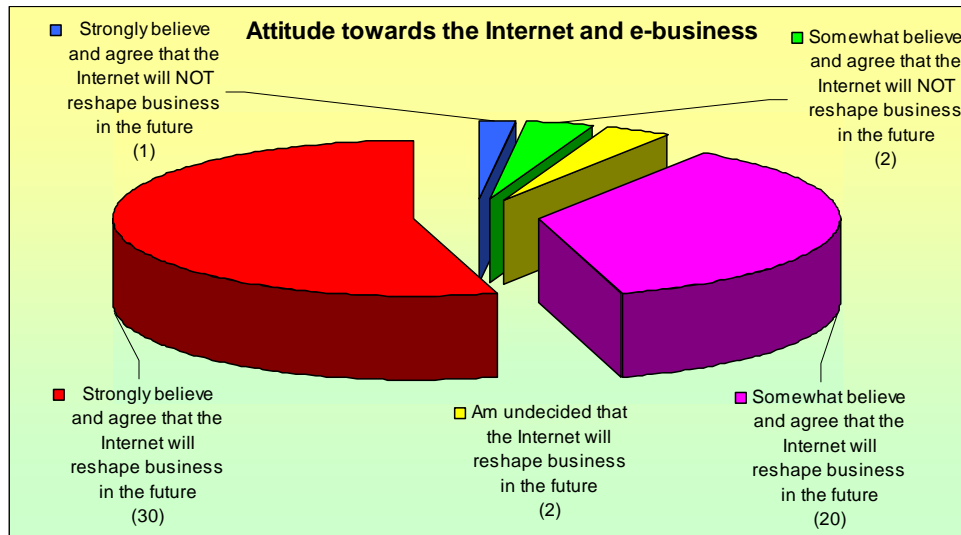
Reasons	Total number of companies
Security concerns	6
Customers are not connected	4
Suppliers are not connected	4
Lack of skilled employees and expertise	4
Not convinced about benefits	4
High costs of implementation	3
Technical limitations of hardware and software	3
Irrelevant to business	3
Connection and/or usage charges are too high	2
Legal and liability concerns	2
Organisation is too small	0

In summary, it would appear that the size of the organisation does affect e-business non-adoption with security concerns being the number one reason for large companies and high implementation costs being the number two reason for small company non-adoption. A common reason for both large and small companies is that customers not being connected ranks as one of the most important reasons for non-adoption and advancement. This shows that Kenyan companies are not adopting and advancing their e-business because others within the same industry are likewise doing the same. The Bandwagon null hypothesis (Appendix 1) would therefore be true for companies in Kenya.

3.5.5 The Internet and future business activity

The purpose of this section is to analyse the belief of the respondents' towards the Internet and e-business in the near future. Figure 12 shows the respondents' beliefs as above.

Figure 12: Attitude towards the Internet and e-business



The overall analysis shows that 90% of the sample believes that the Internet would play an important role in reshaping future business. Only three (of 55) respondents believe that the Internet would not reshape business in the future. The analysis further shows that neither a company's age nor its size (even those companies with less than one hundred employees and those with over one thousand employees) affects its belief towards the Internet and how the Internet would affect business in the future.

There is however some correlation in the intention to develop e-business and company size. Twelve of the twenty-five companies employing less than one hundred employees are not considering the intention to develop e-business. This is not surprising since previous research and literature by Chen et al., (2003), Ash (1997), and Gopalakrishnan and Damanpour (2000) suggests that company size is an important structural feature and is closely related to technology adoption. Small and owner managed enterprises tend not to develop and use e-business mainly because customers are not connected, implementation costs

are high, connection and usage charges are too high and the organisation is too small. The full analysis is shown in Table 4.

3.5.6 Results of the qualitative interviews

The interview process used in this study is aimed at cross-checking the evidence from the quantitative research and getting further insights into the topic. Notes and transcriptions from the interviews provided rich information about the subject and interviewee perception of the Kenyan Government and its support towards promoting e-business. Due to the relative small size of the sample, the author compared comments from different interviewees along the theme and topic of this study. Many interviewee comments are cited in order to enhance the quality of the analysis.

3.5.6.1 Cross check of survey results

After brief introductory questions to establish the age, size and the current e-business status of the interviewees, one of the early questions of the interview referred to the benefits brought about by e-business. There was consensus amongst the interviewees that *“the impact of e-business was improved communication and this had positive effects on efficiency, customer satisfaction, relationship development and especially internal administration”*. The interviewees also said, *“e-business when fully implemented and adopted by a vast majority of Kenyan companies would remove the need for intermediaries in many business dealings”*. The CEO of Express/Kensta Group measured efficiency in marketing terms and had views that their *“costs of acquiring new customers had reduced considerably”*. In reference to e-sales, one of the CEO’s (Express/Kensta Group) mentioned that their group was already using this tool quite effectively and *“e-sales had successfully enhanced competitiveness of their firm”*. The CEO’s of General Printers and Kenafric Industries said that this *“would be a trend in the future”* and they felt that *“e-sales had not substantially changed market share, sales volumes, customer acquisition and customer retention”*. The General Manager of Mabati Rolling Mills however said that e-sales and e-procurement would not dramatically influence business processes even in the future. Their remarks were *“business is business and that the Internet and e-business are merely tools for enhancing efficiency of working and that we are not sure exactly how the Internet will give us competitive advantage since*

competitors will also be using similar technologies". The interviewee did not necessarily imply that e-sales and e-procurement were not important. They rather felt that *"since these two processes require procedures that are more complicated and higher resources, to successfully use these tools in Kenya would take a minimum of five years from 2006 because neither were companies ready nor were there enough capable professions available to guide businesses in the country in the direction of e-sales and e-procurement"*. They further mentioned that, since these tools would be *"available openly to competitors, they did not feel that competitive advantage would be achieved by using these tools"*.

The objective of the next question was to explore the disadvantages of e-business. All the interviewees agreed and said, *"Poor Internet security was the main reason they were not considering using the Internet to conduct e-sales, e-procurement and e-banking"*. Secondly, *"since a majority of their customers and suppliers were not connected and did not use e-business, they were not considering advancing their e-business capabilities as it did not make commercial sense for them to do so and they were therefore not considering further developing their current e-business capabilities for 2-3 years"*.

The next question brought discussions on e-business in the future. There was consensus amongst the interviewees on the feasibility and future prospects of e-business and they viewed the Internet and *"e-business as a whole to drive companies to new levels of competitive advantage and higher profitability"*. They felt that e-business technologies have an equivalent *"impact on changing overall business processes"* and they viewed e-business communications as the number one contributor. They all predicted massive e-business growth in Kenya and that *"in five years' time e-business would no longer be a new emerging technology but would be a sustaining technology and to remain competitive and successful in the globalised world, Kenyan companies will have use e-business technology"*.

With reference to technology adoption, all the interviewees concurred, *"when new technology came out, the influence of customers, suppliers and partners were important in determining whether their companies would decide to use it"*.

Thus, the Bandwagon hypothesis is true and plays an important role in ICT adoption in Kenya.

With reference to the Kenyan Government and e-business, all the interviewees suggested that in order for e-business to be adopted well into Kenya, *“Government intervention was needed in spreading knowledge”* in the form of training programs and hands-on experience of the potential benefits and uses of e-business and educational and informational campaigns. They also said, *“subsidies both direct and indirect would influence e-business take up”*.

In conclusion, the results of the qualitative study support those of the quantitative survey. However, one interviewee strongly felt that since e-business would be available to all participants in the market, competitive advantages may not be gained. Results on e-sales are not too favourable mainly because customers are not connected and because this requires higher resources and procedures.

Chapter 4

Discussion of findings

4.1 Introduction

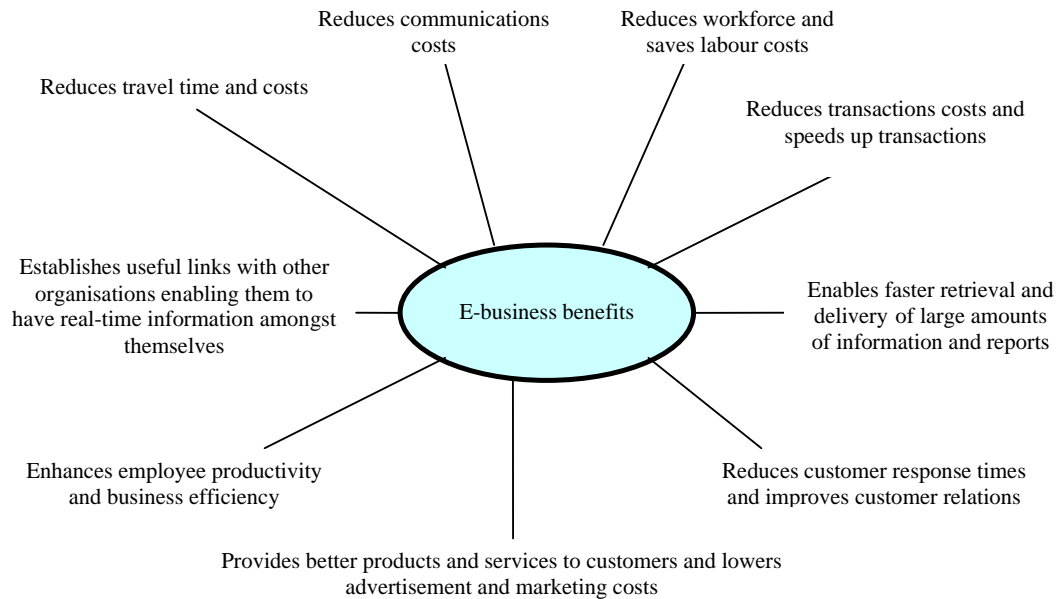
This study set out to investigate whether by adopting e-business, companies would enhance their efficiencies and gain competitive advantages. The main reasons for non-adoption were also examined. This chapter contains the literature review and the discussions of the research findings. Despite the increased importance of the Internet and e-business to conduct business activities, little progress has been made to verify the major factors affecting adoption rates in developing countries such as Kenya and there is a lack of empirical evidence because e-business is a relatively new phenomenon in such countries. Understanding these factors will enable businesses and Governments in such countries to understand the advantages and shortcomings of e-business.

This chapter is organised into six sections with the introduction in Section 4.1. Section 4.2 discusses the benefits of e-business and how e-business contributes towards increasing efficiencies and competitiveness. Section 4.3 discusses the main reasons for non-adoption. Section 4.4 discusses how e-business affects and influences Kenyan businesses. Section 4.5 discusses e-business in the future. Finally, Section 4.6 provides a brief conclusion to the chapter.

4.2 E-business and its advantages

Mirani and Lederer (1998) and all the other key authors acknowledged that the overall advantages of e-business led to numerous cost saving and efficiency enhancing opportunities for organisations. Mirani and Lederer (1998) classify these advantages into three main types transactional, informational and strategic. The literature shows that the advantages/benefits complement each other. The main advantages/benefits of e-business analysed from the literature are illustrated in Figure 13.

Figure 13: The main advantages/benefits of e-business



Source: Author

These benefits can enhance efficiency and bring competitive advantage if e-business is implemented and sustained better than competitors.

The benefits of e-business have positive effects on many activities in an organisation. The quantitative research relates directly with the literature on the three overall types of benefits as Figure 11 has shown. The top benefits of e-business are reduced communication costs, savings and enhanced efficiencies in day-to-day transactions. Communicational related benefits are also covered in the quantitative research under increased opportunities for new business and reduced procurement costs. In both cases, above average responses, that e-business leads to increased efficiencies, opportunities and cost savings were received. Increased efficiency in advertising and marketing (where twenty-five positive responses were received) is complementary to communications because marketing and customer acquisition costs are substantially reduced by using the Internet. Overall, communication savings complement many of the other benefits shown in Figure 11 of the research.

Mirani and Lederer (1998) also discuss increases in employee productivity and the benefits that e-business increases employee productivity are covered under

increased efficiency in accounting where a substantial proportion (33/55) of the companies had noted these benefits and under increased efficiency in process and production where an above average proportion (29/55) of the companies had noted the same.

Mirani and Lederer (1998), Sudhir (2004) and Day and Hubbard (2002) also discuss improved relations with trading partners and in the quantitative research these are covered under better services and support from suppliers, increased customer satisfaction and loyalty. Here a below average proportion of companies had noted these benefits. Although improved relations with trading partners are not the top benefits of e-business, they nevertheless have positive effects on operations. In the qualitative research, interviewees had noted reduced transaction costs, an increase in transactional efficiency and improved communication leading to enhanced efficiencies and better CRM. As mentioned by Bloch et al., (1996) intelligence built into e-business systems enhances CRM and customer service and increases organisational efficiency and competitiveness.

The various benefits of e-business that have been acknowledged in the field study could not have come about without the transfer, delivery, retrieval and easy access to flexible and real-time information. Lucking-Reiley and Spulber (2001), Raisinghania (2003), Phan (2002) and other literature have shown that e-business allows real-time flexible data to be shared easily and quickly enabling well-informed decisions to be made. This real-time data have helped yield the various benefits of e-business including cost reductions of transactions, enhanced efficiencies of staff, better relationships and better and more strategic decision making.

This research shows that the adoption of e-business in majority of companies places them somewhere in the middle of the adoption ladder whereby companies have efficient external and internal communications and a place on the Web. The research did not address how many actually order and pay online but it has been found out that very few businesses in the research have integrated their supply chains. The research did not sufficiently cover open systems and as very

few companies have integrated systems, following from the literature, even fewer would have open systems.

4.3 Reasons for non-adoption

Cloete, Courtney and Flintz (2002), Bordoloi (2000) and other literature suggests that e-business is not being adopted due to the fear that Internet transactions lack adequate security. People therefore tend not to use the Internet to conduct safe and secure business. Additionally, there is high perception that e-business tends to be complicated and unenforceable because of jurisdiction issues. Finally, the literature suggests that high costs are involved in implementing e-business and e-business is viewed with reservations because it does not bring immediate benefits and cost-savings. In parts of the more developed world, many companies have realised the value of e-business therefore, connection amongst supply chain partners is high. This empirical study shows that the majority of SME's and large companies state that customers not being connected followed by high implementation costs and thereafter by security concerns are also the main reasons for non-adoption. The literature Chen et al., (2003), Ash (1997) and Gopalakrishnan and Damanpour (2000) and this research further shows that organisational size plays an important role in non-adoption. Small companies are not adopting e-business due to high connection, and usage charges whilst medium sized companies due to limitations of hardware and software together with insufficient human resources. Finally, this empirical study shows that large companies are not adopting e-business due to security concerns.

4.4 E-business influences on Kenyan companies

It has been made quite clear from the literature and the empirical results that e-business has helped companies improve efficiencies and reduce costs. Even though this study shows that a small number (8/55) of Kenyan enterprises are using e-business to advanced stages (whereby the companies have a transactive, interactive or have an integrated Website), a large proportion of companies (37/55) have some form of Web presence. This is true despite the majority of them coming from a brick and mortar background. This confirms that the companies have realised the importance of e-business. E-business in terms of e-sales and e-procurement is lagging far behind other e-business activities because they are thought to be more complicated and require higher resources.

4.5 E-business and future business activity

OECD (2001) suggests that the Internet has transformed economic activity and other researchers do agree that e-business has been growing rapidly and the next few years will bring rise to a truly global e-business market. The potential of various technologies will be realised and will be adapted to current business models for future new markets. Thus, the Internet and e-business will play an important role in shaping future business. The overall attitude towards e-business is positive with the majority of the respondents (50/55) believing that the Internet and e-business will play an important role in shaping business in the future. Respondents even state that those activities currently considered a security risk would in the future be conducted over the Internet with normality. The literature on e-business has shown that e-business adoption is gradual and development to advanced stages is preceded by initially having basic e-business capability, and as sophistication levels increase so do the benefits. Overall, the interviewees also felt that the Internet and e-business was vital for the future and would transform future processes and drive companies to new levels of competitive advantage. Three interviewees felt that e-procurement, e-sales and other forms of advanced e-business would be a trend in Kenya in the near future and the empirical results confirm this.

4.6 Summary of discussions

The findings from this study are shown and discussed and are supportive to the findings made in the literature review. This study shows that e-business is an elaborate and vast topic. Because it links organisations, it creates conditions for increased efficiency, competitive and strategic advantage. E-business reduces communication costs which in-turn reduces transaction costs. E-business gives users' access to high quality, flexible and real-time information enabling firms to respond more quickly to change. This has positive effects on customer relations. E-business enhances employee productivity and business efficiency by the reduction of work force, travel time and costs therefore shortening and speeding up of transactions and operational activities.

The problems of e-business adoption are that costs including connection speeds and costs of staying on top of ICT (in Kenya) are high and prohibitive. Further, e-business is easily copied and therefore cannot remain a sustainable advantage

for long. Kenyan businesses are willing and do have the capacity to adopt e-business except that there is a lack of human resources with the necessary skills and expertise to help them establish full e-business activities. However, e-business is definitely changing the way in which Kenyan companies communicate, trade and conduct their business.

Chapter 5

Conclusions and Recommendations

5.1 Introduction

Based on the discussions and the evaluations of the findings in Chapter 4, this chapter puts together conclusions about e-business and its adoption, its negative aspects and e-business in the future. Recommendations, limitations of this study, suggestions for future research and personal learning gained by the author from this study will follow.

5.1.1 The adoption of e-business in Kenya

E-business adoption for communication and internal administration has been at high levels. Few Kenyan firms have adopted e-business to advanced stages and e-sales adoption is lagging behind other e-business activity. The majority of small and medium sized companies in Kenya lack trading partners, financial resources, knowledge of technology and human resources to be full participants in this global trend. E-business therefore still remains a phenomenon of advanced nations. Large Kenyan companies with sufficient resources also lack trading partner participation and the confidence in e-business security, even though today's Internet security measures are highly sophisticated and businesses need not fear about trading and transacting online, large Kenyan companies still fear conducting business over the Internet and linking their organisational systems to others. Kenyan firms large and small alike have however realised the strategic importance of e-business and are willing to develop e-business activity further even though the majority of them are from a brick and mortar background.

5.1.2 The main negative aspects of e-business in Kenya

This study concludes that that for large companies, Internet transactional security is the main negative feature of e-business. For small and medium sized companies, the main negative quality of e-business is that it involves enormous resources (financial and human) in implementation and not many companies are able to afford implementing e-business.

5.1.3 E-business in the future

It is acknowledged that e-business is no longer an alternative but is imperative for any businesses' success in the future. In addition to this, it has been found that there is no uniform prescription or model to fit all companies and even companies in the same industry, of the same size, and with similar culture are finding that one e-business strategy does not fit all. This study concludes that e-business is important in Kenya's future economic growth and development. It is evident therefore that companies without e-business strategies will be left way behind those that do and those companies which are applying e-business strategies will see increased competitiveness and profitability.

5.2 Recommendations

Kenyan business should take a long-term vision and realise that if they do not adopt and advance their e-business activity, they will not be able to compete effectively and efficiently in the future global marketplace. E-business brings considerable benefits even if adopted in/at basic levels. High-level adoption will enable businesses to be at par with companies in the developed world. High-level adoption does however involve higher investments but has the potential to make businesses more efficient and bring about even greater competitive advantages to businesses in the longer term. Kenyan enterprises should therefore embrace and increase their e-business adoption status and know that the higher the level of adoption, the greater the business benefits.

The Kenyan Government should educate its population about the importance of embracing ICT and why change from traditional brick and mortar methods of working is necessary for the growth and development of the country. Although the Government has published ICT and other related policies, it is doing little to make the workforce aware of why ICT and change is necessary.

5.3 Limitations of the study and future research

Whilst the contributions from this study are important, there are several limitations of the study. The sample was by definition a convenience sample as it was drawn mainly from the directory of the KAM. Consequently, research findings and conclusions from this study may not be generalised to the entire population of the corporate sector in Kenya.

This study used cross-sectional data on the adoption of e-business in Kenya. It did not examine the adoption of e-business across a period in time. Future research could examine the adoption process over a certain time say six months to one year, to observe the process of the adoption of e-business and what the companies experienced at each different stage of adoption. Research could also cover businesses in Kenya's neighbouring countries.

Only one person (and in one case two individuals at the same time) from each organisation were interviewed. In order to strengthen data reliability for any inconsistencies in interview responses, more than one individual per firm could be interviewed. The sample of interviewees could also be enlarged.

Lastly, the competitive advantages enhanced efficiency and increased profitability factors that were examined were discussed at a broad level. Future research could concentrate on a few of these factors in detail.

As the literature has shown, e-business activity in Kenya and Sub Saharan Africa is grossly under researched and there is plenty of scope for further studies and investigations.

5.4 Personal learning

This study has been a much larger challenge than the author expected and has taken almost fifteen months of tedious work. It has however provided the author with great insights into the very broad topic of e-business and more importantly its adoption in Kenya. In addition to this, the author has gained valuable experience in research and analysing existing literature, interviewing and analysing data. This will enable the author to undertake research work in the future with greater confidence.

The study embarks with the literature review and personally, a complex area as there is too much literature available on e-business. An extensive literature review helped in developing the structure of this study. Writing the literature chapter was very difficult in light of the number of academic articles available on the topic. Mirani and Lederers (1998) study provided a base on which to carry out the literature review for this study by identifying the three broad benefits of

e-business (transactional, informational and strategic) and how they increase efficiency and enhance competitiveness of organisations.

Planning the field research and doing the questionnaire was easier once this structure was adopted.

Data presentation and analysis discussions were not as straightforward as the author had thought and this study went through several reviews before it was finally completed. Data were difficult to analyse and Excel was useful in data analysis.

Findings, conclusions and recommendations for further research were the chapters that summarised the author's findings and sharpened the author's knowledge in the field of e-business, its adoption in Kenya and the efficiencies and competitive advantages it has brought.

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Appendix 1: Bandwagon hypothesis

A commonly cited hypothesis in the context of technology adoption, the bandwagon hypothesis, states "... the probability of adoption by a firm at a given date is positively related to the proportion of firms in the industry who have already adopted". Jensen (1982) states this assumption corresponds to Schumpeter's imitation hypothesis, implying that firms follow others in adopting a new technology if they have successful experiences with this technology.

Appendix 2: Questionnaire

1. Name of your organisation (please type) :

2. Your business type is:

- Manufacturing/Industrial
- Service
- Retail
- Finance
- Other

3. How best would you describe your company:

- Not connected to the Internet, no e-mail
- Connected to the Internet with E-mail but NO web site
- Static web that is publishing basic company information
- Interactive web presence, that is accepting queries, e-mail and form entry from users
- Transactive web, which is online selling and purchasing of products and services. Making direct sales to customers' and or letting customers' order over the web site
- Integrated web, that is, a web site integrated with suppliers, customers' and other back office systems allowing most business transactions to be conducted electronically

4. Number of years in business:

- Less than 5 years
- Between 5 and 10 years
- Between 10 and 15 years
- Over 15 years

5. Number of employees:

- Less than 50
- Between 50 and 100
- Between 100 and 250
- Between 250 and 500
- Between 500 and 1000
- Over 1000 employees

6. What is your company's attitude towards the Internet?

- Strongly believe and agree that the Internet will NOT reshape business in the future
- Somewhat believe and agree that the Internet will NOT reshape business in the future
- Am undecided that the Internet will reshape business in the future
- Somewhat believe and agree that the Internet will reshape business in the future
- Strongly believe and agree that the Internet will reshape business in the future

7. Which of these statements do you feel that your organisation would agree to?

(i). Our organisation DOES NOT use e-mail for internal communications and DOES NOT intend to do so in one year's time.

- Strongly disagree
- Somewhat disagree
- Undecided
- Somewhat agree
- Strongly agree

(ii). Our organisation does not have a transactive (online selling and purchasing of products and services. Making direct sales to customers' and or letting customers' order over the web site) web site and we do not intend to do so in one years time.

- Strongly disagree
- Somewhat disagree
- Undecided
- Somewhat agree
- Strongly agree

(iii). Our organisation does not have an integrative web site (web site integrated with suppliers, customers' and other back office systems allowing most business transactions to be conducted electronically) and we do not intend to do so in one years time.

- Strongly disagree
- Somewhat disagree
- Undecided
- Somewhat agree
- Strongly agree

8. Your company has implemented and is using e-business activities. Below is a list of statements indicating possible reasons of what your company has noted since you implemented e-business activities?

In your opinion, please rank each statement on a scale of 1 to 5 to indicate whether you disagree are neutral or agree to the statements as follows:

- 1 - The reason is strongly disagreed by us. 1
- 2 - The reason is somewhat disagreed by us. 2
- 3 - The reason was neither disagreed nor agreed by us. 3
- 4 - The reason is somewhat agreed by us. 4
- 5 - The reason is strongly agreed by us. 5

Rating

a. As a result of implementing e-business we have noted reduced communication costs

- 1 2 3 4 5

b. As a result of implementing e-business we have noted increased efficiency in advertising and marketing

- 1 2 3 4 5

c. As a result of implementing e-business we have noted increased revenues

1 2 3 4 5

d. As a result of implementing e-business we have noted increased customer loyalty

1 2 3 4 5

e. As a result of implementing e-business we have noted increased customer satisfaction

1 2 3 4 5

f. As a result of implementing e-business we have noted reduced procurement costs?

1 2 3 4 5

g. As a result of implementing e-business we have noted better services and support from suppliers

1 2 3 4 5

h. As a result of implementing e-business we have noted increased efficiency in accounting

1 2 3 4 5

i. As a result of implementing e-business we have noted increased efficiency in process/production

1 2 3 4 5

j. By implementing e-business this has helped globalize our production and capital markets

1 2 3 4 5

k. By implementing e-business we save time in finding resources

1 2 3 4 5

l. By implementing e-business we have enhanced our company image

1 2 3 4 5

m. By implementing e-business we have increased our opportunities for new business

1 2 3 4 5

9. This question relates to the reasons why your organisation is not using e-business. Below is a list of statements indicating possible reasons? Based on your opinion, please rank each statement on a scale of 1 to 5 to indicate how important it was to your decision not to use e-business as follows:

The reason of not to use e-business was:

- 1 – Highly important.
- 2 – Somewhat important.
- 3 – Neither important nor unimportant.
- 4 – Somewhat unimportant.
- 5 – Highly unimportant.

a. We have not implemented e-business activities due to security concerns (e.g. unauthorised entry to systems)

1 2 3 4 5

b. We have not implemented e-business activities due to high costs of implementation

1 2 3 4 5

c. We have not implemented e-business activities due to lack of skilled employees and expertise

1 2 3 4 5

d. We have not implemented e-business activities as we are not convinced about its benefits

1 2 3 4 5

e. We have not implemented e-business activities as connection and/or usage charges are too high

1 2 3 4 5

f. We have not implemented e-business activities as our customers are not connected

1 2 3 4 5

g. We have not implemented e-business activities as our suppliers are not connected

1 2 3 4 5

h. We have not implemented e-business activities due to technical limitations of our hardware and software

1 2 3 4 5

i. We have not implemented e-business activities as we feel that it is irrelevant to our business

1 2 3 4 5

j. We have not implemented e-business activities due to legal and liability concerns

1 2 3 4 5

k. We have not implemented e-business activities as our organisation is too small

1 2 3 4 5

10. What do you feel is the role of Government is in driving e-business in Kenya?

- Strongly believe and agree that the Government is NOT playing an active role in driving E-business in Kenya
- Somewhat believe and agree that the Government is NOT playing an active role in driving E-business in Kenya
- Am undecided about the role the Government is playing an active role in driving E-business in Kenya
- Somewhat believe and agree that the Government is playing an active role in driving E-business in Kenya
- Strongly believe and agree that the Government is playing an active role in driving E-business in Kenya

11. Please feel free to add any other comments you may have in the space below:

YES we would like a copy of the results of this survey.

YES

NO we do not want a copy of the results of this survey.

NO

Appendix 3: Personal interview questions

INTERVIEW GUIDE

RESPONDENT INFORMATION

Date: _____

Interview Time: _____

Interview Location: _____

Name: _____

Job

Title: _____

Company: _____

Can I use your name and your company name in my dissertation or should it remain anonymous?

Yes - you may use my name and my company's name in your dissertation

No - do not use my or my company's name in your dissertation

DEFINITION OF E-BUSINESS

E-business is defined as the use of electronic transmission mediums (including telecommunications) to engage in the exchange, including buying and selling of products and services requiring transportation, either digitally or physically from location to location.

BASIC INFORMATION

1. How many years have you been in business for?

Less than 5 years

Between 5 and 10 years

Between 10 and 15 years

Over 15 years

2. What is your annual turnover in Kenya Shillings?

Less than 100 million

Between 100 million and 500 million

Between 500 million and 1 billion

Between 1 billion and 2 billion

Between 2 billion and 5 billion

Over 5 billion

3. How many employees do you have?

Less than 50

Between 50 and 100

Between 100 and 250

Between 250 and 500

Between 500 and 1000

Over 1000 employees

4. What is your company's vision?

(Does the company have a vision statement and what does this mention?)

5. What is your company's mission?

(Does the company have a mission statement and what does this mention?)

6. Are you achieving this vision and mission?

7. What is your company's core competency?

8. How best would you describe your company (with respect to the Internet/e-business)

Not connected to the Internet, no e-mail

Connected to the Internet with E-mail but NO web site

Static web that is publishing basic company information

Interactive web presence, that is accepting queries, e-mail and form entry from users

Transactive web, which is online selling and purchasing of products and services. Making direct sales to customers' and or letting customers' order over the web site

Integrated web, that is, a web site integrated with suppliers, customers' and other back office systems allowing most business transactions to be conducted electronically

9. What do you currently use in your own organisation?

- > E-mail
- > Web site
- > Lan/Wan
- > Intranet
- > Extranet
- > Broadband
- > V-Sat
- > VOIP

10. What is your company's attitude towards the Internet?

- Strongly believe and agree that the Internet will NOT reshape business in the future
- Somewhat believe and agree that the Internet will NOT reshape business in the future
- Am undecided that the Internet will reshape business in the future
- Somewhat believe and agree that the Internet will reshape business in the future
- Strongly believe and agree that the Internet will reshape business in the future

11. Approximately how many of the employees above use the internet for their day to day work?

12. Is real time sales, service and after sales service an issue for your products?

13. Which of these statements would you agree to?

a. You have realised the potential of various technologies and are adapting current business models for the new market.

- Strongly disagree
- Somewhat disagree
- Undecided
- Somewhat agree
- Strongly agree

b. You believe that your business will have the opportunity to add value on top of your traditional business by using the latest technology innovations.

- Strongly disagree

- Somewhat disagree
- Undecided
- Somewhat agree
- Strongly agree

c. Your organisation does not use e-mail for internal communications and does not intend to do so in one year's time.

- Strongly disagree
- Somewhat disagree
- Undecided
- Somewhat agree
- Strongly agree

d. Your organisation does not have a transactive (online selling and purchasing of products and services. Making direct sales to customers' and or letting customers' order over the web site) web site and you do not intend to do so in one year's time.

- Strongly disagree
- Somewhat disagree
- Undecided
- Somewhat agree
- Strongly agree

e. Your organisation does not have an integrative web site (web site integrated with suppliers, customers' and other back office systems allowing most business transactions to be conducted electronically) and you do not intend to do so in one year's time.

- Strongly disagree
- Somewhat disagree
- Undecided
- Somewhat agree
- Strongly agree

14. When new technology comes out, how does your company decide when to use it?

15. Do you think your company will switch to doing majority of trade over the net?

- a. Why?
- b. Why not?

(The above question will be split to cover Sales and Purchase over the Internet)

- c. Is your sales E-enabled?
 - i. Have you reduce the number of salesmen?
 - ii. Has this complimented the work of the sales team?
- d. Is your purchasing E-enabled?

16. Who are your main competitors and are they using e-business activities?

- a. For their sales?
- b. For their purchasing

17. Your company has implemented and is using any e-business activities. Below is a list of statements indicating possible reasons of what your company has noted since you implemented e-business activities? In your opinion, please rank each statement on a scale of 1 to 5 to indicate whether you disagree are neutral or agree to the statements as follows:

- 1 - The reason is strongly disagreed by us.
- 2 - The reason is somewhat disagreed by us.
- 3 - The reason was neither disagreed nor agreed by us.
- 4 - The reason is somewhat agreed by us.
- 5 - The reason is strongly agreed by us.

Rating				
1	2	3	4	5

- a. As a result of implementing e-business you have noted reduced communication costs.....
- b. As a result of implementing e-business you have noted increased efficiency in advertising and marketing
- c. As a result of implementing e-business you have noted increased revenues.....

- d. As a result of implementing e-business you have noted increased customer loyalty
- e. As a result of implementing e-business you have noted increased customer satisfaction.....
- f. As a result of implementing e-business you have noted reduced procurement costs?
- g. As a result of implementing e-business you have noted better services and support from suppliers.....
- h. As a result of implementing e-business you have noted increased efficiency in accounting
- i. As a result of implementing e-business you have noted increased efficiency in process/production.....
- j. By implementing e-business this has helped globalize your production and capital markets
- k. By implementing e-business you save time in finding resources.....
- l. By implementing e-business you have enhanced your company image
- m. By implementing e-business you have increased your opportunities for new business.....

18. This question relates to the reasons why your organisation is **not** using e-business. Below is a list of statements indicating possible reasons? Based on your opinion, please rank each statement on a scale of 1 to 5 to indicate how important it was to your decision not to use e-business as follows:

- The reason of not to use e-business was:
- 1 – Highly important.
 - 2 – Somewhat important.
 - 3 - Neither important nor unimportant.
 - 4 – Somewhat unimportant.
 - 5 – Highly unimportant.

Rating				
1	2	3	4	5

- a. You have not implemented e-business activities due to security concerns (e.g. unauthorised entry to systems)

- b. You have not implemented e-business activities due to high costs of implementation
- c. You have not implemented e-business activities due to lack of skilled employees and expertise.....
- d. You have not implemented e-business activities as you are not convinced about its benefits
- e. You have not implemented e-business activities as connection and/or usage charges are too high.....
- f. You have not implemented e-business activities as your customers are not connected
- g. You have not implemented e-business activities as your suppliers are not connected.....
- h. You have not implemented e-business activities due to technical limitations of our hardware and software
- i. You have not implemented e-business activities as you feel that it is irrelevant to our business.....
- j. You have not implemented e-business activities due to legal and liability concerns
- k. You have not implemented e-business activities as your organisation is too small.....

19. From the question number 17 above, what are the main reasons for you implementing e-business or willing to implement e-business in the future or recommending the implementation of e-business?

20. If your organisation has implemented E-business, what are the main disadvantages you have experienced as a result of adoption of e-business? Refer to choices from question number 18 above.

21. How do you think your company's trading will change over the next two years?

22. Are your suppliers also adopting e-business and are you encouraging those who have not adopted e-business to adopt e-business?

23. Can you identify the any stumbling blocks that you have encountered in launching the e-business concept to all stakeholders?

24. What do you feel is the role of Government is in driving e-business in Kenya?

- Strongly believe and agree that the Government is NOT playing an active role in driving E-business in Kenya
- Somewhat believe and agree that the Government is NOT playing an active role in driving E-business in Kenya
- Am undecided about the role the Government is playing an active role in driving E-business in Kenya
- Somewhat believe and agree that the Government is playing an active role in driving E-business in Kenya
- Strongly believe and agree that the Government is playing an active role in driving E-business in Kenya

25. How would you benchmark Kenyan companies in their ICT activities compared to:

- a. Other African countries companies except South Africa
- b. South Africa
- c. Internationally
 - i. Are companies 'e-leaders'?
 - ii. Do they constitute international benchmarks of ICT infrastructure adoption and e-business activity?
 - iii. Is there a large digital divide amongst the large companies in Kenya?
 - iv. Is there a large digital divide amongst the large companies and SME's in Kenya?
 - v. Is there a large digital divide amongst the SME's in Kenya?

Appendix 4: Introduction and request to answer questionnaire

Dear Sir/Madam,

RE: REQUEST TO ANSWER QUESTIONNAIRE

I am Rajeev Chatrath the Financial Controller of Kenafric Industries Limited. I would like to request your company to participate in my dissertation survey regarding *"E-business Adoption by companies in Kenya and whether or not E-business adoption by SME's (Small and Medium Sized Companies) and Large Corporate's in Kenya will lead them to; gaining competitive advantage, enhanced efficiency and increased profitability."*

This dissertation is the conclusion of my MBA at the Henley Management College UK.

Your participation in my survey will be of great value for my research.

Please note that all information will be handled with utmost confidentiality and no names of organisations and people will be referred to in the final dissertation except (with permission) those companies with whom I will be conducting personal interviews.

At your request, I shall e-mail to you a copy of the summary of the research results and of the findings of the study as a whole and recommendations from the analysis of the research without any charge. You will have the opportunity of grading your company compared to the overall results of the study.

Please reply to me via e-mail as to whether you are willing to take part in this survey or not by simply replying to this mail with either YES, I AM WILLING or NO, I AM NOT WILLING.

The survey will take you approximately 10 minutes to fill in by simply ticking your answers in the appropriate boxes. The survey will be sent to you in a Microsoft Excel file. Once you have completed the survey, kindly save the file and resend it back to me. I request feedback from you by Wednesday the 3rd of May 2006.

Alternatively, the survey could be sent to you a single file and you could print the same, and answer it on hard copy and either fax it on 8562111 or post it to me on P.O. Box 48337, Nairobi, 00100.

I thank you, in advance for your participation,

Rajeev Chatrath (FCCA, ACMA)

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Appendix 5: Reminder

Dear Sir/Madam,

A few days ago, I solicited your assistance in filling out a questionnaire for the study on ***“E-business adoption by companies in Kenya and whether or not E-business adoption by SME’s (Small and Medium Sized Companies) and Large Corporate’s in Kenya will lead them to; gaining competitive advantage, enhanced efficiency and increased profitability.”***

If you had accepted your willingness to answer my survey, I now enclose the questionnaire. Please accept my sincere thanks for your valuable time and immediate response.

It is critical that this questionnaire be completed and returned so that the results of the study truly represent the thoughts of SME’s and large companies in Kenya.

You are assured of complete confidentiality and anonymity. Neither your name nor the name of your business will be identified in any form. The data will be treated confidentially with only summary data being used for statistical analysis.

Please use Microsoft Excel to open the file and answer these simple 34 questions. When you open the file please note the instructions below in order to enable you to answer the questionnaire and resend it back to me.

1. Once you open the file, a message will be displayed telling you that the file cannot be opened because the security level is set to high.
2. Click OK on this Microsoft Excel message that pop's up.
3. Go to "Tools" in the Excel menu – then go to "Macro" and then click "Security"
4. On the Security level tab, set the security to Low and click OK
5. Close Excel questionnaire file and open the file again normally.
6. In order for me to have validated my Dissertation, I request you to answer ALL questions.
7. After answering the questions, please save the file and resend it back to me.

Finally please do not forget to click whether you require a copy of the survey or not. I will send the results to you as soon as I have analysed the findings.

If you have any questions about this survey, the individual or the institution involved, please feel free to contact me by e-mail or by telephone. I can be reached at rajeev@kenaficind.com and phone numbers 8562100-7 or 0722-515-168.

Thank you again for your contribution to the completion of this survey.

Sincerely
Rajeev Chatrath

Appendix 6: Benefits of e-business - Advanced stage companies

Have implemented e-business either to a transactive or an integrated stage and have noted the following	Strongly agree	Somewhat agree	Total
Increased revenues	1	2	3
Increased customer loyalty	3	1	4
Reduced procurement costs	3	2	5
Helped globalise production and capital markets	2	3	5
Increased efficiency in process and production	3	2	5
Better services and support from suppliers	3	3	6
Increased customer satisfaction	4	2	6
Saved time in finding resources	1	6	7
Increased efficiency in advertising and marketing	5	2	7
Reduced communication costs	3	4	7
Enhanced company image	1	7	8
Increased opportunities for new business	3	5	8
Increased efficiency in accounting	2	6	8

Word Count

Excluding the Abstract, Bibliography and Appendices - 16,942 words