ACHIEVING COMPETITIVE ADVANTAGE THROUGH E-BUSINESS AT MULTIPLE HAULIERS (E.A) LIMITED KENYA

SHIDAH KHAMILA

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DECLARATION

This research project is my original work and to the best of my knowledge has not been submitted for the award of a degree in any other university.

Signature: ……. Date: ……

SHIDAH KHAMILA

D61/77035/2012

The research project has been submitted for the award of degree of master of business administration with my approval as the University Supervisor.

Signed ……. Date …….

DR. JACKSON MAALU, PHD.,

SENIOR LECTURER

Department of Business Administration
School of Business
University of Nairobi

DEDICATION

This study is dedicated to my family for their love, support, encouragement and prayer which saw me through the entire course.

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ABSTRACT

Today's dynamic business environment has forced business managers to constantly review their firms' business activities and strategies in order to compete effectively. Strategic managers often develop strategies that will give their firms an edge over their competitors. Businesses therefore frequently adopt innovations to gain competitive advantages or capabilities. The objectives of this study were to establish the adoption of e-business by Multiple Hauliers (E.A) Limited as a strategy in achieving competitive advantage and to determine the factors that influence adoption of e-business for competitive advantage by the company. The research design was a case study. The case study was considered appropriate because the focus of the study was to answer "how" and "why" questions and the study covered contextual conditions that are relevant to the phenomenon under study. Primary data was collected using an interview guide focusing on adoption of E-Business in achieving competitive advantage in Multiple Hauliers (E.A) Limited. This gave an original and authentic view of the issues being sought after that enabled valid generalization about the company. The questions were addressed to Staff in charge of the Modernization Program. They were twenty respondents for the interview. This incorporated positions of senior managers in the departments of fleet management, clearing and forwarding and internal container depot. The data collected was cleaned, validated, and edited for accuracy, uniformity, consistency and completeness. Content analysis was used considering the qualitative nature of the data that was collected through in-depth personal interviews. The study established that e-business practices has been adopted and implemented by the company in the departments of fleet management, clearing and forwarding and internal container depot. It was also established that e-business practices helped the business in maintenance of inventory, proper maintenance of inventory, compliance, cost reduction, reduced delays, data safety and improved customer service. The study further established that the factors that influence adoption of e-business include knowledge of e-business benefits, existing ICT infrastructure, cost of e-business implementation and available ICT skills and knowledge of the employees. From the study, the most important factor to influence adoption of e-business practices is the knowledge of benefits derived from e-business. This forms the basis on which the business puts in relevant effort to adopt and successfully implement e-business for competitive advantage. the study recommended that since e-business is increasingly becoming an important tool for businesses to gain a competitive advantage and in turn drive economic growth, the government should come up with relevant policies that will support the education of owners and employees of different companies on importance of adoption of e-business and also improve on the current infrastructure available to companies. This is based on the finding in this study that the main consideration in adopting e-business is the knowledge of the benefits accruing from its use. In addition, owners and employees of companies should be encouraged to regularly attend workshops and courses to constantly improve on their technical skills and knowledge of e-business given the fickle nature of Information Technology. The findings would be useful when developing policy guidelines for making changes in the institutional frameworks and policy interventions in E-Business activities. With regard to theory the study will add value to the body of strategic management discipline especially in the more demanding concerns of strategic issues in management and will form the basis of further research by identifying the knowledge gap that arises from this study. With respect to practice, this project presents ample opportunity for business people to acquire clientele by improving on services offered through E-Business.

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CHAPTER ONE: INTRODUCTION

1.1Background of the Study

Today's dynamic business environment has forced business managers to constantly review their firms' business activities and strategies in order to compete effectively. Strategic managers often develop strategies that will give their firms an edge over their competitors. These strategies are chosen based on the firm's unique core competencies and capabilities as well as favorable industry factors. Some of the common corporate strategies used include the grand competitive strategies, strategic alliance and partnership, merger and acquisition, vertical integration, outsourcing, defensive/offensive strategies, functional strategies and diversification (Thompson, Strickland and Gamble, 2008). Firms have been focusing on technological innovations in product and service delivery, closer communication and better customer relationship as a way of enhancing prominent placement in the market. Adoption of e-business as a strategy can allow small firms to compete with bigger names in their sector. A firm is said to have competitive advantage when it organizes and combines its core competencies and capabilities in a manner that is perceived by customers as of value compared to its rivals.

The relevance of particular theories that are widely applied in the E-business adoption literature to current research is vitally important. These theories are the theory of competition and the theory of innovation. E-business should be part of the overall competitive strategy and be integrated into core business processes. Hax & Majluf (1996) stated that competitive advantage is created when resources and capabilities that are owned exclusively by the firm are applied to developing unique competencies. In a world of increasing competition and technological change, the generation and diffusion of innovations increasingly rely upon new technological knowledge which is generated not only by learning processes within internal

Research & Development department, but also by interactions with sources of innovation in the systems of innovation (Tidd, 2006). This forms the relevance of the theory of innovation.

Service industries hold an increasingly dynamic and pivotal role in today's knowledge based economies. The logistics industry is a classic example of the birth and development of a vital new service-based industry, transformed from the business concept of transportation to that of serving the entire logistical needs of customers. Quantum advances in science, technology, and communication in the new millennium have compelled firms to consider the potential of the new resources that are essential if firms are to operate effectively within the emerging business model, and to utilize the opportunities to innovate and gain market leadership (Chapman, Soosay and Kandampully, 2003). In the knowledge based economy, many organizations are forced to re-think their business strategies and move away from the traditional approach of doing business. Organizations must adopt new and innovative ways of maximizing information technology and internet in their business process and service delivery to their customers (Chan and Al-Hawamdeh, 2002).

1.1.1Competitive Advantage

The concept of competitive advantage refers to what firms do differently in winning customers and continue doing so in business. Porter (1985) defines competitive advantage as a way in which a firm chooses a generic strategy to compete in the market. The generic competitive advantage chosen could be a cost advantage and differentiation advantage. Cost advantage is achieved through consistent production of products and services at lower cost than comparable competitors. Differentiation advantage is achieved through continuous development of unique products and performing of services in a superior manner than comparable competitors. The two competitive advantages form the basis in which a firm selects a competitive strategy such as through cost leadership, differentiation and focus. The

choices of a competitive strategy would be influenced by the industry structure and the firm's core competencies. Hills and Jones (2001) posit that competitive advantage is the ability of a company to outperform competitors within the same industry. They further assert that innovation, efficiency, quality and customer responsiveness are the main building blocks of competitive advantage.

Thompson & Strickland (2002) assert that a company has competitive advantage whenever it has an edge over its rivals in securing customers and defending itself against competitive forces. They further argue that a company competing in that market place with a competitive advantage tends to be more profitable and it is likely to earn higher returns than the one competing with no advantage. A firm experiences competitive advantage when its action in an industry or market creates economic value and when few competing firms are engaging in a similar action. When a firm earns a higher rate of economic profit of other firms competing within the same market, the firm has a competitive advantage in that market (Besanko, Dranove & Shanley, 2000). Organizations achieve competitive advantage by providing their customers with what they want or need better or more effectively than competitors. The intensity of competition among firms varies across industries. Strategic decisions are normally about trying to achieve some advantage for the organization over competition (Johnson & Scholes, 2002).

1.1.2 The Competitive Advantages and E-business Adoption

Businesses frequently adopt innovations to gain competitive advantages or capabilities. An organization may adopt an innovation because it fears being left behind by other organizations that do so. During innovation diffusion, early adopters are more likely to seek efficiency and profit gains, whereas later adoptions may reflect the pursuit of legitimacy (Westphal, Gulati & Shortell, 1997). Specifically, powerful customers and suppliers may

demand the adoption of innovative processes that they perceive will either reduce their costs of, or increase their benefits from, dealing with the focal organization. Companies must be flexible to respond rapidly to competitive and market changes. They must benchmark continuously to achieve best practice. In addition, strategic positions can be based on customers' needs, customers' accessibility, or the variety of a company's products or services (Ramsay, 2001).

Electronic business is recognized as an important area for information technology innovation and investment (Sauer, 2000). Firms are increasingly attempting to incorporate e-business into their existing information systems applications and business processes, and build Internet-based technologies for transacting business with trading partners (Teo, Ranganathan, and Dhaliwal, 2006). Developing e-business capability is an important undertaking because it is not only rapidly chaining the way that companies buy, sell, and deal with customers, but also becoming a more integral part of its business strategies (Abu-Musa, 2004). E-business is an integration of communication technologies with business processes and management practices via internet (Simpson and Doherty, 2004). The domain of e-business covers almost all of the firm's business functions such as transferring of funds, communication with customers, electronic buying and selling of goods and services, servicing customers, collaborating with business partners, and conducting transactions within organization. The potential of electronic business to transform business models, organizational structures and processes and relationship with customers, suppliers and other business partners is now universally acknowledged (Xu, Zhu, and Gibbs, 2004). Several reasons seem to underlie the rapid uptake of e-business globally.

Straus & Frost (2002) assert that most of e-business implementation decisions in business processes are based on the possibility to reach significant cost efficiency which means bigger

company profits and higher level of competitiveness on the market. E-business enables a firm to create value for its current and potential customers and also for itself by sending cost-effective customized communication about new products and services. The tension between the organization's economic motivations and normative pressures to adopt innovations is particularly relevant in the context of e-business. From a theoretical perspective, Porter's value chain framework suggests that value creation within a business unit can be traced through distinct stages - beginning with the inbound interface (where supplier related processes are concentrated), through the business itself, and culminating at the outbound interface (where customer-related processes are concentrated). Consistent with this view, it emerges that managers cognitively clustered e-business activities as pertaining to suppliers, the internal operations of the business, and to customers (Porter, 1985).

1.1.3 Multiple Hauliers (E.A) Limited

Multiple Hauliers (EA) Limited was formally established in 1982 as a family business with only a handful of trucks. The aim was to be the main service provider for the haulage industry in East Africa. The company was initially conceived in the early 1970's, from a small residential yard in the South C area of Nairobi. The truck enthusiasts, started with 3 brand new Leyland bodied trucks and worked hard to build the business well into the 1980's until acknowledging there was a need to fill a void in the bulk haulage, with particular focus on Petroleum Products. It has a territorial presence in Kenya, Uganda, Tanzania & Rwanda and has over 1,000 employees. Multiple Hauliers (E.A) Ltd has a fleet of above 1000 Trucks. The fleet is comprised of a mixture of general cargo trucks, skeletal for carrying containers, bulkers for carrying bulk cement, tippers for ferrying goods such as clinker, soda ash, gypsum, fuel and gas tankers. The company operates as a subsidiary of Multiple Group

namely; RT Roadways Tanzania Ltd, Muloil Ltd, Multiple ICD Ltd, Multiple ICD Kenya Ltd, Multiple Solutions Ltd, Multiple Industries Ltd and RT (E.A) Ltd (Onyango, 2013).

The Company's Vision Statement is to be the premier Road Transport Contractor in Africa by setting the highest standards of integrity, safety and best environmental innovations whilst offering total transport solutions to our valued Customers and the Mission Statement is to excel with consistent improvements in every area of management and operations by providing quality and timely service with pride & integrity whilst ensuring safe & secure environmental working practices at all times. The Company's Headquarters are in Nairobi with branch Offices in Mombasa, Kisumu, Busia, Malaba, Kampala and Mwanza. Being the flagship of a group of Companies, the Company is also proud of its state-of-the-art Inland Container Depot (ICD) in Kampala, Uganda and the Trailer, Tankers & Tippers Assembly plant in Nairobi, Kenya. The petroleum products fleet comprises mainly of not older than 5-7 years Mercedes Benz & NISSAN trucks that are supported by a large number of smaller convoy (Road Patrol) and maintenance vehicles (Onyango, 2013).

1.2 Research Problem

Competitive advantage is a key determinant of superior performance, and ensures survival and prominent placing in the market. In today's world, competition in the market has become so intense that firms are continuously developing and implementing strategies to stay relevant in business. Firms strive to gain and sustain competitive advantage through technological innovations, efficiency, quality products and services and being responsive to customer needs. E-business is a contemporary strategy in achieving cost-effective firm customer connectivity and in lowering trade and information barriers. It has an important role in supply chain management where there are a lot of possibilities to improve business processes at a lower cost hence bigger company profits and higher levels of competitiveness

in the market. E-business would provide the basic framework for activities in haulage business including fleet management, safety compliance and training of employees.

Multiplers Hauliers (E.A) Limited is a formidable force with a territorial presence in Kenya, Uganda, Tanzania and Rwanda. With one of the most up to date transport fleets in Eastern Africa, the company has the ability to transport a diverse spectrum of goods for some of the largest companies in the region, moving both imports and exports. E-Business practices would be applicable in fleet management, clearing and forwarding and internal container deport. In clearing and forwarding, the activities that would be supported by a E-Business platform include; declaration of imports and exports, receiving the goods from the factories or premises, warehousing of goods, receiving dispatch orders from the principal, arranging dispatch of goods as per the directions of the principal by engaging transport on his own or through the authorized transporters of the principal and maintaining records of the receipt and dispatch of goods and the stock available at the warehouse. In fleet management E-Business adoption would help in reducing and minimizing overall costs through maximum, cost effective utilization of resources such as vehicles, fuel and spare parts (Onyango, 2013).

Early research on e-business emphasized how companies derived competitive advantage, and primarily focused on case studies of a small sample of organizations (Ihlstrom & Nilsson, 2003). Croom (2005) asserted that companies greatly acknowledge the benefits of using e-business in logistics processes. Johnson, Klassen, Leenders & Awayshehet (2007) studied the impact of e-business adoption to customer service, ordering and procurement. He argued that understanding of how and where firms use e-business and the direct benefits that they provide is still limited. In Kenya, Mutua, Oteyo & Njeru (2011) studied the strategic value of e-commerce in SMEs in Nairobi. This study established that e-commerce is not widespread. 43% of all the firms surveyed had no functioning websites. 31% of the firms had static

websites, while 22% of the firms had active websites that allowed interactive communication with customers. Finally, Ayuma & Munyoki (2012) in their paper 'E-Commerce Strategy and Performance of Commercial Banks in Kenya' aimed at establishing the relationship between e-commerce strategy and performance of commercial banks in Kenya, and the factors influencing the adoption of e-commerce strategy. The results indicated that there was a strong relationship between the e-commerce strategy and performance of commercial banks in Kenya. The importance of logistics industry in the economy has attracted a lot of attention from various stakeholders thereby necessitating various studies which try to tackle emerging issues. This study will attempt to answer the research question, 'is adoption of e-business as strategies by logistics firm help it gain competitive advantage?

1.3 Research Objectives

i. To establish the adoption of e-business by Multiple Hauliers (E.A) Limited as a strategy in achieving competitive advantage.
ii. To determine the factors that influence adoption of e-business for competitive advantage by Multiple Hauliers (E.A) Limited.

1.4 Value of Study

This study will offer valuable contribution to theory and practice. First the study will add value to the body of strategic management discipline especially in the more demanding concept of competitive advantage and will form the basis of further research by identifying the knowledge gap that arises from this study. E-business being a contemporary issue, will effectively contribute to theory development. Researchers will be able to understand emerging competition based on new technology and how firms are positioning themselves in the market place to increase customer share. The findings of this study would be useful to

policy makers by informing them on important E-Business management practices needed be addressed in order to foster a fair competitive business environment.

The findings would be useful when developing policy guidelines for making changes in the institutional frameworks and policy interventions. Electronic commerce and especially adoption E-business will add value to growth of the economy. This is contingent upon the adoption of legislation that supports electronic transactions. This study will add insights into the area of legislation from its benefits point of view. This research also offers scholars a foundation into the extent significance of e-business as a competitive strategy policy area.

For practices purposes, if organizations are to achieve competitive advantage by delivering value to the customers, the information in this study will help managers understand how value is created when e-business is adopted as a strategy in their firms. They will be able to understand and address factors that facilitate or hinder the adoption of e-business. The government will also have a chance to formulate policies related to e-business adoption in government institutions. To scholars, the results would contribute to the existing knowledge on E-Business practices in achieving competitive advantage in Logistics companies. It would assist in providing sources information for further research studies.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides a discussion of the various theories and concepts that provide explanations regarding adoption of E-Business in achieving competitive advantage in logistics companies; studies that have been done that are relevant to this study and a summary of the literature review. The chapter is organized in such a way that it begins with a discussion of the relevant theories followed by concepts then the empirical review, and finally a summary of literature review.

2.2 Theoretical Foundation

This section focuses on theoretical review of how businesses achieve competitive advantage by adopting E-business practices. Two theories are reviewed in this study and they include theory of competition and theory of innovation.

2.2.1 Theory of Competition

Barney (1991) asserted that a firm has a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors. When two or more firms compete within the same market, one firm possesses a competitive advantage over its rivals when it earns a persistently higher rate of profit (Grant, 1996). Competition exist when different organization seek commitments of time and energy from the same target markets and an organization faces competition when its success depends upon behaviour of other actors who are trying to fulfill similar customer needs. Porter (1979) noted that it is a prudent for any firm to understand the underlying sources of competitive pressure in this industry in order to formulate appropriate strategies to respond. Firms often respond to such environmental changes through strategic responses.

Hax & Majluf (1996) stated that competitive advantage is created when resources and capabilities that are owned exclusively by the firm are applied to developing unique competencies. Moreover, the resulting advantage can be sustained due to the lack of substitution and imitation capabilities by the firm's competitors. Advances in information and communications technology have allowed for a wide range of electronic business models and applications. These applications are providing a competitive advantage for organizations by creating efficiencies and cost reductions. E-Business should therefore be part of the overall competitive strategy and be integrated into core business processes.

2.2.2 Theory of Innovation

It was developed by Schumpeter (1934). He described development as historical process of structural changes, substantially driven by innovation which was divided by him into five types namely; launch of a new product or a new species of already known product; application of new methods of production or sales of a product; opening of a new market; acquiring of new sources of supply of raw material or semi-finished goods and new industry structure such as the creation or destruction of a monopoly position. Schumpeter argued that anyone seeking profits must innovate. That will cause the different employment of economic system's existing supplies of productive means. Hanush and Pyka (2007) believed that innovation is considered as an essential driver of competitiveness and economic dynamics. They also believed that innovation is the center of economic change causing gales of 'creative destruction', which a term is created by Schumpeter in Capitalism, Socialism and Democracy (Schumpeter, 1942).

According to Schumpeter (1942) innovation is a process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. In a world of increasing competition and technological

change, the generation and diffusion of innovations increasingly rely upon new technological knowledge which is generated not only by learning processes within internal Research & Development department, but also by interactions with sources of innovation in the systems of innovation (Tidd, 2006). Thus, a critical component of successful innovation is the ability of a firm to exploit and utilize external knowledge from different sources of innovation (Lin and Chen, 2007).

2.3 Factors Affecting Adoption of E- Business for Competitive Advantage

Peng and Trappey (2005) assert that e-business adoption is closely related to the rapid use of the Internet technology as the Internet has become a commercial medium that attract and motivate the enterprises to experiment a new way of serving their customers. However, for organizations to fully apply e-business in their operations they must consider certain factors depending on the type of business. These include factors related to application, intra-firm related factors, management emphasis, human resources and competitive attitude. Lin and Lee (2005) indicated that organizational learning factors and knowledge management processes are closely related to the level of e-business adoption in any organization. Business owners, who are aware of the e-business applications and its benefits, are more motivated to gain the knowledge and understanding of e-business and its practices. However, if the business owners have negative attitude and perception towards e-business, then those factors will become their reasons or barriers for reluctance to change. Another factor that is related to e-business adoption is the readiness level of customers, suppliers, intermediaries, competitors and the public.

The factors can also be generally classified into three namely; factors relating to the applications, intra-firm related factors and factors related to the supply chain. Application factors include operational compatibility, relative advantage, complexity and the cost of

e-business applications. Operational compatibility deals with how compatible are the e-business applications with the existing activities of companies (Rogers, 1995); Relative advantage refers to the expected benefits and the usefulness arising from e-business applications in comparison to other applications (Rogers, 1995) while complexity refers to the difficulties that a company is expected to face in understanding and using the applications (Van der Veen, 2004). Finally, cost is linked to the perceptions of the persons interviewed regarding the capital needed for investments.

The Internet changes the basis of competition by radically altering product/service offerings and the cost structure of firms. The Internet also changes the balance of power in relationships with buyers and suppliers by increasing or decreasing the switching costs of these buyers and suppliers. By reducing customers' search costs, the Internet makes price comparison easy for customers, and thus increases price competition (Bakos, 1998). The price competition resulting from lowered customer search costs increases rivalry among existing competitors, reduces switching costs of customers, and thereby shifts bargaining power to customers. On the other hand, IT reduces menu cost; the cost of administering multiple prices for a number of different products or services and, in part, facilitates price discrimination (Bakos & Brynjolfsson, 1997).

The Internet creates new substitution threats by enabling new approaches to meeting customer needs and performing business functions (Porter, 2001). World Wide Web technology itself has produced new promotion venues. The Internet also facilitates an electronic integration of the supply chain activities, achieving efficient distribution and delivery. It also facilitates partnerships or strategic alliances by networking partners or allies. The Internet enables consumers to compare prices, products, and services across suppliers. According to Bakos (1998) lower search costs for price and product offerings in Internet

marketplaces promote price competition among sellers. The Internet thus significantly affects competition, and intensive price competition can eliminate sellers' profits.

Christensen & Methlie (2003) claimed that e-business improves business processes through the automation and optimization of usual business processes. The main benefits associated with e-business solutions are increased efficiency and effectiveness of various business processes, improved internal and external communication, reduced costs and the like (Chong, 2010). Those benefits are often related to the competitive advantage of the company, which suggests that company competes successfully (Sila, 2012). According to Croom (2000) key application areas of e-business solutions may be inward oriented and outward oriented. Concrete outward oriented application areas of e-business are value system integration achieved by closer cooperation between different players in the industry, customer-oriented activities and supply chain integration. Main e-business solutions for the described application areas are e-procurement solutions, e-commerce, order management systems, Customer relationship management and e-invoicing. Key inward e-business application area is management of internal work processes with the help of such e-business solutions as Enterprise resource planning, Knowledge management system, Enterprise document management system and e-learning applications (Graaf & Muurling, 2003).

2.4 Empirical Literature on E-Business Practices

The adoption of e-commerce is tending to automate rather than re-design existing business processes. High levels of internal information systems integration appear to be associated with low levels of business process integration. Business process management is a systematic approach to improving an organization's business processes. It seeks to make business processes more effective, more efficient, and more capable of adapting to an ever-changing

environment (David, Matthew & Suzanne, 2002). On the international domain, Hedberg, Dahlgren, Hansson & Olve, (1997) carried out a survey on the influence of E-commerce on customer-facing operations, relationships with suppliers, and internal operations throughout the whole organization whether in the front office that is, those areas that involve contact with customers or in the back office that is, areas with no customer contact. They concluded that the impact of e-commerce on operations management has, to date, focused primarily on the external links in the supply chain. This may be due to an assumption that e-commerce is associated with moves to more outsourcing, linked with concepts of the virtual organization. It may also be due to the need to manage the greater connectivity afforded by e-commerce.

Soto-Acosta & Meroño-Cerdan (2008) attempted to identify e-business resources and capabilities and to find out the relationship between those two separate variables and firm's performance. The result showed that IT resources were not related with e-business value. However e-business capabilities had a positive impact on procurement costs, cost of logistics and inventory and relation to suppliers. Sanders (2007) analyzed the benefits of e-business technologies from the supplier perspective. Study results showed the association of e-business with strategic and operational benefits. In the study on the interaction of e-commerce and IT on firm performance, Zhu (2004) found the positive relationship between e-business capabilities and company's improved financial performance. Zhu (2004) replicated in previous study developed conceptual framework relating two set of variables; e-commerce capabilities and IT infrastructure with firm performance.

In Kenya, Ochieng (1998) found out that e-commerce is a key factor on bank business process management. However, irrespective of the level of operational activity retained within the organization, the adoption of e-commerce seems bound to have significant implications for the way that business processes are managed internally and externally.

Magutu, Ongeri & Mwangi (2009) studied modeling the effects of E-Commerce adoption on business process management. The general objective of this study was to model the effects of e-commerce adoption on business process management. It was found that the commercial banks in Kenya have formalized policy on E-Commerce and internal business process management. The major effects of e-commerce on banks business process management were found to be improved image of the bank through improved service provision.

2.5 Summary

The adoption of e-commerce is tending to automate rather than re-design existing business processes. High levels of internal information systems integration appear to be associated with low levels of business process integration. Business process management is a systematic approach to improving an organization's business processes. Business Process Management activities seek to make business processes more effective, more efficient, and more capable of adapting to an ever-changing environment. Equally, technology is what drives the phenomena of globalization and provides competitive advantage to firms. Technological factor reduces costs, improves quality and leads to innovation. It can benefit consumers as well as the organizations providing the products. Relevantly, adoption of E-Business is the right option for businesses including logistics firms.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, the population, the sample, the type of data needed and the source of the data. This chapter also explains how the data will be analyzed and conclusions arrived at.

3.2 Research Design

The research design was a case study. Young (1999) asserts that a case study is a powerful form of qualitative analysis that involves a careful and complete observation of a social unit, irrespective of what type of unit is under study. The case study was considered appropriate because the focus of the study was to answer “how” and “why” questions and the study covered contextual conditions that are relevant to the phenomenon under study (Yin, 2003).

Young (1960) as cited in Kothari (2004) describes case study as a comprehensive study of a social unit be that unit a person, a group, a social institution, a district or a community. It is a form of qualitative analysis where in careful and complete observation of an individual or a situation or an institution is done; efforts are made to study each and every aspect of the concerning unit in minute details and then from the case, data generalizations and inferences are drawn. Multiple Hauliers (E.A) Limited therefore met the criterion for the case study.

3.3 Data Collection

Primary data was collected using an interview guide focusing on adoption of E-Business in achieving competitive advantage in Multiple Hauliers (E.A) Limited. This gave an original and authentic view of the issues being sought after that enabled valid generalization about the company. An interview guide was prepared to assist in an in-depth interview. It is a justified tool as it helps to collect in-depth data using probing questions on key E-business practices

adopted at different departments and tasks especially in the areas of fleet management, clearing and forwarding and internal container depot. The questions targeted top management at the three departmental areas.

The questions were addressed to Staff in charge of the Modernization Program; they were twenty respondents for the interview. This incorporated positions of senior managers in the departments of fleet management, clearing and forwarding and internal container depot. The interviews covered levels of staff across all the departments. The procedure involved personal interviews conducted by the researcher. By doing so the researcher was able to determine how Multiple Hauliers (E.A) Limited has adopted E-Business practices and the factors that influenced adoption of E-Business. The senior managers were the target of the interviews as they are deemed to be well versed with the E-Business practices in the respective departments.

3.4 Data Analysis

The data collected was cleaned, validated, and edited for accuracy, uniformity, consistency and completeness. Content analysis was used considering the qualitative nature of the data that was collected through in-depth personal interviews. This is a systematic qualitative description of the composition of objects or material of study. It involves observation and detailed description of objects, items or things that comprise the study (Mugenda, 1999). This technique uses a set of categorization for making valid and replicable inferences from data to their context (Baulcomb, 2003). The data collected was meant to establish the adoption of e-business by the logistics firm and to help determine the factors that influence adoption of e-business by Multiple Hauliers E.A Limited. Issues arising from the interviews were analyzed appropriately. This offered a systematic and qualitative description of the objectives of the study.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents research results and findings and then concludes by presenting detailed analysis and discussions of the research objectives as guided by the research questions and objectives. The objectives of the study was to establish the extent of adoption of e-business by Multiple Hauliers (E.A) Limited as a strategy in achieving competitive advantage and to determine the factors that influence adoption of e-business for competitive advantage by the company. The interview guide was administered to 20 interviewees.

4.2 Profile of Multiple Hauliers (E.A) Limited

Multiple Hauliers (EA) Limited was formally established in 1982 as a family business with only a handful of trucks. The aim was to be the main service provider for the haulage industry in East Africa. The company was initially conceived in the early 1970's, from a small residential yard in the South C area of Nairobi. The truck enthusiasts, started with 3 brand new Leyland bodied trucks and worked hard to build the business well into the 1980's until acknowledging there was a need to fill a void in the bulk haulage, with particular focus on Petroleum Products. It has a territorial presence in Kenya, Uganda, Tanzania & Rwanda and has over 1,000 employees. Multiple Hauliers (E.A) Limited has a fleet of 1500 Trucks. The fleet is comprised of a mixture of general cargo trucks, skeletal for carrying containers, bulkers for carrying bulk cement, tippers for ferrying goods such as clinker, pet coke, gypsum, fuel and gas tankers. The company operates as a subsidiary of Multiple Group namely; RT Roadways Tanzania Limited, Multiple ICD Limited, Multiple ICD Kenya Limited, Multiple Solutions Limited, Multiple Industries Limited and RT (E.A) Limited.

The Company's Vision Statement is to be the premier Road Transport Contractor in Africa by setting the highest standards of integrity, safety and best environmental innovations whilst offering total transport solutions to our valued Customers and the Mission Statement is to excel with consistent improvements in every area of management and operations by providing quality and timely service with pride & integrity whilst ensuring safe & secure environmental working practices at all times. The Company's Headquarters are in Nairobi with branch Offices in Mombasa, Kisumu, Busia, Malaba, Kampala and Mwanza. Being the flagship of a group of Companies, the Company is also proud of its state-of-the-art Inland Container Depot (ICD) in Kampala, Uganda and the Trailer, Tankers & Tippers Assembly plant in Nairobi, Kenya. The petroleum products fleet comprises mainly of not older than 5-7 years Mercedes Benz and NISSAN trucks that are supported by a large number of smaller convoy (Road Patrol) and maintenance vehicles.

The market of the company spans in the wider east African region including Uganda, Kenya, Rwanda, Burundi and Tanzania. The company carries various disparate products from numerous sources. The principal items include petroleum products, cement and ancillary goods, chemical, salt and soda ash, grains and foodstuffs, other agricultural goods and general cargo. These different commodities require different fleet and equipment specifications. The company has over the years, developed, designed and invested in equipment and facilities that have enabled them to service these diverse sectors. Being the one of the most reputable haulage companies in East Africa, the company's' fleets are easily identifiable as they are painted in the company's corporate colours; bright orange and blue.

The company has done a huge investment in 1500 trucks that have the latest safety features and modern technology. The fleet is comprised of a mixture of general cargo trucks, skeletols for carrying containers, and bulkers for carrying bulk cement, tippers for ferrying goods such

as clinker, pet coke, and gypsum as well as fuel and gas tankers. The entire fleet is fitted with the latest tracking systems, enabling constant monitoring from a central control room, ensuring conformity of a vehicle's journey plan and abidance to company driving rules. The company has also recently invested in the installation of cargo tracking systems. This is a prime importance for fuel tankers, cement bulkers and container cargo, wherein it alerts if there is any tampering or opening of the doors or hatches.

The clients of the company include Bamburi Cement Ltd, Taita Chemicals Magadi Ltd, Athi River Mining Company Ltd, Damco – Uganda, Shell Uganda Ltd, Jacobson Uganda Power plant co. Ltd and Electro-Maxx Uganda Ltd. The company has won several awards; in 2002 the company won the President's HSSE Award (South Zone) and Presidents' HSSE Award (North West E.A); in 2003 the company was awarded as the best transporter E.A and Grade 'A' Uganda league while in 2007 the company got the 1st Prize road safety initiatives. The company also got the 1st prize road safety award in 2009 while in 2010 it received 2nd place road safety award (Motor commercial) and 2nd place road safety award (general cartage). The company has therefore maintained competitive performance overtime.

4.3 E-business Practices at Multiple Hauliers (E.A) Limited

E-business is the processes and tools that allow companies to use internet-based information technologies to conduct business internally and externally. Lately company's investments into e-business infrastructure and e-business solutions have been considered to be of primary importance for the companies seeking to compete successfully in any industry and market. Companies attempting to be competitive can barely manage without e-business. Multiple Hauliers has adopted a number of E-business practices in fleet management, clearing and forwarding and internal container depot.

4.3.1 Fleet Management

Fleet management includes many diverse tasks and responsibilities. It requires a dedicated staff to manage vehicle acquisition, maintenance, repairs and disposal, while following all laws, regulations and policies. The fleet management plan addresses all long-range strategic and business aspects of owning, operating and disposing of vehicles. It also addresses the financial aspects of establishing vehicle use rates and replacement funding. Having timely and accurate data is vital to professional fleet management. The study established that the fleet is comprised of a mixture of general cargo trucks, skeletols for carrying containers, and bulkers for carrying bulk cement, tippers for ferrying goods such as clinker, soda ash, and gypsum as well as fuel and gas tankers. The entire fleet is fitted with the latest tracking systems, enabling constant monitoring from a central control room, ensuring conformity of a vehicle's journey plan and abidance to company driving rules. The researcher also found out that the company has made a huge investment in the fleet with an estimate of Kshs. 18 billion. The company has also private owned yards worth Kshs 2.1 billion. The picture below shows a section of the company's trucks in the yard:

Figure 4.1 Section of the Company's Trucks in the Yard

Source: Research Data, 2014

E-business practices in fleet management are essential to keep the fleet safe and well managed. It requires advanced and innovative technology to provide full service fleet management solutions. The data was collected using one-on-one interview, visit and observation and taking of pictures. The researcher held an interview with the fleet co-ordinator, sea freighter manager and operations manager and also took pictures of the fleet of vehicles in the some of the yards. The study established that the company has installed a management information system designed specifically for the fleet that can track, analyze management information system designed specifically for the fleet that can track, analyze

and provide the reports necessary to ensure accurate and timely decision-making, so that the company can optimize overall fleet performance. The database can help to maintain inventory, manage proper maintenance, identify and analyze high-cost vehicles, develop reports for regulatory compliance, monitor vehicle use and establish vehicle-replacement cycles.

The research established that the fleet management software at the company has the capacity to supervise, manage, locate, schedule and maintain vehicle fleets. The comprehensive maintenance and logistics system features a modular architecture with integrated applications for activities such as asset management, maintenance requirements, planning and forecasting, configuration management, and defect analysis. Asset management involves tasks such as the definition of individual assets and asset families, cost analysis and valuation, and calculating depreciation. Maintenance requirements describe scheduled maintenance activities such as A, B, C, and D checks. The software also support department of transportation (DOT) guidelines. With the fleet management software, planning and forecasting activities at the company include line maintenance planning, work packaging, estimating, capacity planning, and supply chain management. It was further established that work packaging allows users of fleet management software to combine different maintenance requirements, sometimes on different assets, to complete work in the most efficient way while estimating is an important module for users of fleet management software who have budgetary, accounting or financial oversight activities. The company has invested 80,000 dollars in the software. The company has further sourced experts from Indonesia that continuously develop the software and tailor-make it applications to operations of the company and take care of continuous business changes. These experts are three (3) software engineers each paid 6,000 dollars monthly.

It was found out that the superior software has given the company a host of competitive advantages. The company enjoys low cost monthly service with optional cellular data plan. Planning more efficient routes helps to serve more customers, reduce fuel costs, cut overtime hours, and reduce vehicle maintenance. The software allows the company to schedule and plan recurring routes as well as manage and even adjust dynamic routes at just a moment's notice. The software also shows real-time vehicle locations, customers, and routes. It also sends routes and instructions to your drivers with the click of a mouse. The in-vehicle sensors enable complete vehicle monitoring. Customizable driver forms also allow the company to tailor the business needs. The software also maintains a historical record of vehicle routes, breadcrumbing, and route analysis. These advantages make Multiple Haulier (E.A) limited a market leader in the region.

4.3.2 Clearing and Forwarding

As a clearing and forwarding agent, the company clear shipments of goods through the country's Customs Inspection facilities and then ship them onwards to their final destination within that country. Clearing and forwarding activities are handled by Multiple Freight Solutions Limited (hereafter referred as MFSL) is a fully Licensed Logistics, Customs Clearing and Freight Forwarding. MFSL employs over 50 qualified staff with strong logistics experience in the Region, MFSL is well positioned in the Great Lakes Region to deliver quality service to meet and exceed customer requirements and expectations. United by a commitment to customers and energized by the role in helping them succeed, the company has steadily grown in the region since its establishment in 2008. MFSL provides individual supply chain consultation through its logistics experts and brings specialized knowledge to specific industries, like Project Logistics, Customs clearing, Ware Housing and cargo consolidation. The company's Sea /Air Freight and Ware Housing products are an

integral part of the total Solution Package product, which includes dedicated Sea, Road and Air Freight departments. The activities here include receiving the goods from the factories or premises of the principal or his agents; warehousing these goods; receiving dispatch orders from the principal; arranging dispatch of goods as per the directions of the principal by engaging transport on his own or through the authorized transporters of the principal; maintaining records of the receipt and dispatch of goods and the stock available at the warehouse.

Data was collected using observation and interviews. The researcher interviewed the warehouse manager, the warehouse manager and the IT personnel. The study established that the company employs highly qualified and experienced clearing agents who are properly remunerated. The company has its own trucks that ease the transportation of goods after clearing. This is cheaper as compared to outsourcing transportation hence giving the company a competitive advantage. The company has approximately 6000 trucks stationed in its own yards built within its premises within the region. This is an implication of reliability which is of prime competitive advantage. On a weekly basis, the researcher established that the company receives approximately 400 containers for clearance. The figure below shows a section of the company's containers in clearing yard:

Figure 4.2 Section of the Company's Containers

Source: Research Data, 2014

The clearing agent takes physical stock at the port immediately the ship arrives so that immediate transportation of the containers is done instead of waiting for the ship to offload all the cargo. This allows the importer to arrange for verification of the cargo and faster clearance at the ICD. Invoicing is controlled by software and data is saved on clouds so that it can be retrieved on line in case of any destruction. The researcher found out that billing is on line so that clients can get their charges from their offices and the calculation of charges is based on information input on probable date of release of goods. Confirmation of bank payment is on line due to on line banking. This saves clients the hustles of unnecessary delays and cost.

In sea service, the study established that the company is a Non-Vessel Operating Common Carrier (NVOCC) and sea Freight Forwarder specializing in the movement of Sea Freight in Full Container Load (FCL) or Less than Container Load (LCL) volumes. Through the company's association with FIATA and World Cargo Alliance, it is able to negotiate large

volume confidential contracts with multiple steamship lines in all global trade lanes. These contracts allow the company to offer competitive rates to their clients. With a complete range of Sea Freight Services, the company leverage volumes smartly to deliver competitive seas transportation in every major trade lane between Kenya, Europe, Middle and Far East and Asia. The study established that through the company's network of experienced professionals, strong world shipping connections and extreme flexibility, it is able to specifically respond to whatever the shipping needs customers. The figure below shows a section of the company's sea related services taken during the research:

Figure 4.3: Section of the Company's Sea Services

Source: Research Data, 2014

In road services, the study established that Multiple Hauliers (EA) Limited is the largest road haulage contractor in the Eastern Africa Region. It was established that Multiple Hauliers (E.A) Limited operates a fleet in excess of 1500 Trucks and Trailers and is able to move diverse products such as Bulk Goods (Coal, Cement Clinker, Finished Cement, Pet coke and Gypsum), all Petroleum Products, Containerized Cargo, General Cargo and Outsize Items.

With facilities across the region, Multiple Hauliers is able to ensure that all goods are moved in a Safe and Secure manner. All fleet vehicles are fitted with the latest satellite trackers enabling Multiple Solutions Track and Trace to be updated with accurate positioning of the cargo being carried. Whether it is only one container or thousands of tons of goods, Multiple Hauliers will, with the assistance of its years of experience move any commodity within the entire region, including Rwanda, Burundi and Southern Sudan. The company has therefore established a strong competitive footing in the region due to its reliability and high efficiency levels arising from adoption of E-business practices.

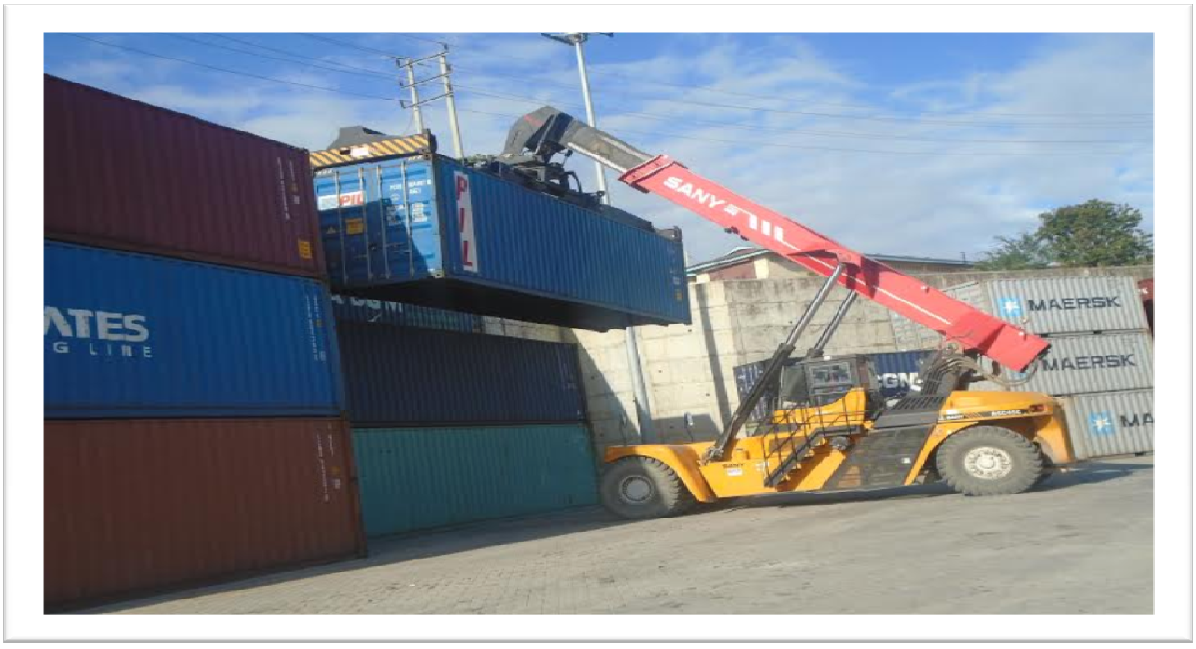
4.3.3 Internal Container Depot

This involves entire item-wise package of service activities for handling the temporary empty/laden container storage, loading/unloading general export/import goods, and containers under custom clearance. All the activities relate to clearance of goods for home use, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export, transshipment, take place from this station. An inland container depot has the following related departments functioned in its own covered area or premises; Container Service Department, Import Department, Container Freight Station/Warehouse, Documentation Department, Equipment Department, Transportation Department, Port Removal Department, Trucks/Cover van Parking Station and Direct Yard Stuffing/De-stuffing Department.

The study established that Multiple Solutions Limited offers State of the Art Storage facilities in both Mombasa, through Multiple ICD Kenya Limited and in Kampala, through Multiple ICD Limited. Located in close proximity to Kilindini harbour, it is the largest Inland Container Depot, outside the port, with a capacity of some 15,000 TEU's (20 equivalent units). It also offers bonded and general warehousing together with the most expansive

covered bulk commodity facilities in the region, directly linked to the berth by automated conveyor systems. Cargo can be transferred into and out of the port in a speedy and efficient manner either by road or rail shunting, directly into the facility across a bridge link from the port. Multiple ICD Limited on the outskirts of Uganda's capital city is also the largest ICD in Uganda, with a capacity of some 4,000 TEU's. The facility also offers customers with extensive Bonded and General warehousing. Multiple Solutions Limited is, therefore able to offer clients with the choice of direct delivery of goods or the use of the regions latest storage facilities. This is an aspect of competitive advantage. The company adopts E-business best practices to avoid the off shelf package which was rigid, to avoid frustrating customers, to focus on turnover and to establish competitive rates to get more business. The figure below shows cargo handling activities at the company's premises:

Figure 4.4 Cargo Handling Activities

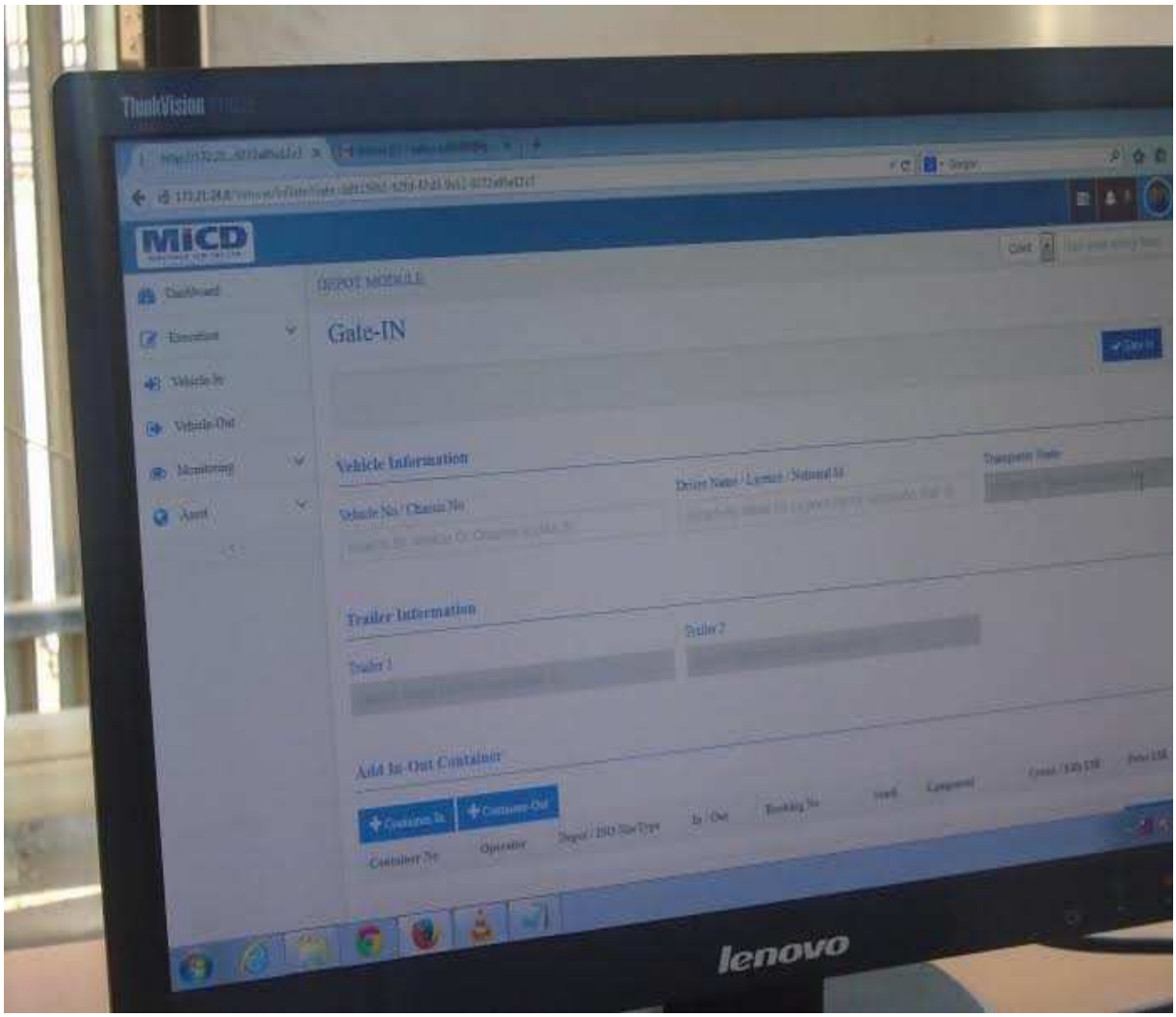


Source: Research Data, 2014

The research established that the ICD gates are automated. Immediately the cargo arrives at the gate, the system send alert message to the customer care desk, the ICD operator and the

importer that the goods have arrived. This closes loopholes that may cause delays and enables importers to quickly arrange for clearance of the goods. When containers enter the ICD, they are fitted with special seals that are customized with container details. These details are detected by the top loader during loading. The information is picked up by the top loader to help the machine operator to locate the container. The system calculates the time the container has stayed in the ICD yard. Since the container has importer details, the operator is able to profile the importers based on how fast they clear their goods from the ICD. The information is necessary during staking of the containers so that when new shipment comes in, those that are usually cleared faster are placed on first moving lanes while those that stagnate are staked at the back lanes. The figure 4.5 below shows the automated system at the entry gate of the ICD yard:

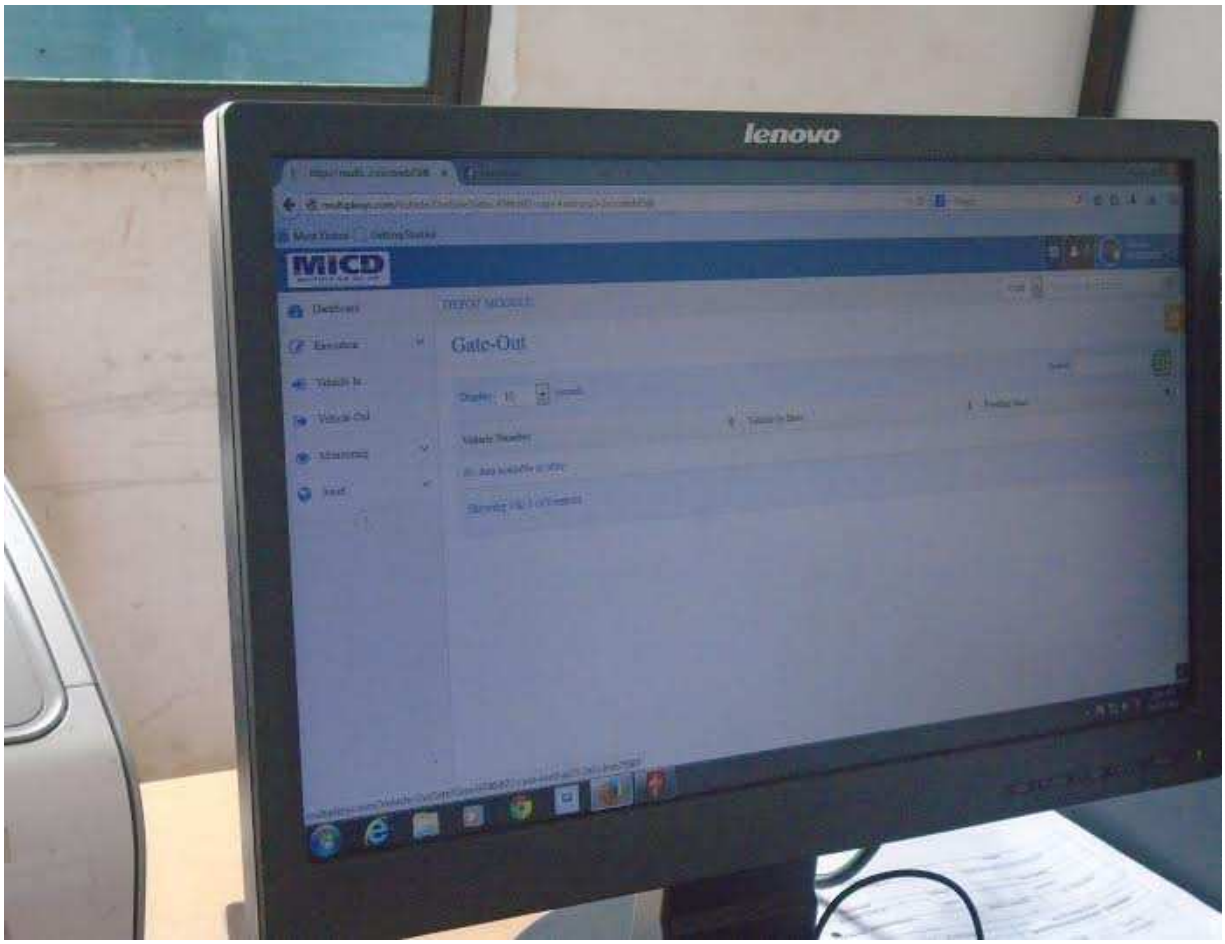
Figure 4.5 Automated System at the entry of the ICD Yard



Source: Research Data, 2014

At the exit gate, the system picks information from the electronic seal which includes the truck number, identification number of the driver, the container details and send it to the importer and the operator signaling the release of the container. The figure 4.6 below shows the automated system at the exit of the ICD yard:

Figure 4.6 Automated System at the exit of the ICD Yard



Source: Research Data, 2014

These applications, the study established have helped the company to get real time updates, to reduce human movements in the yard, facilitate reporting and reduce fraud. The gate pass is printed per container and this helps to seal loopholes of loosing storage fee in bulk consignments. In this system, when the container leaves the ICD yard, the gate pass is confirmed and the system locks automatically and cannot allow re use of the same gate pass. Automated warehousing allows reports to be transmitted easily to the main system.

4.4 E-business Practices and Competitive Advantage

E-business solutions create diverse benefits for the business. Although the integration of e-business solutions in the usual business processes may improve all activities throughout the

value chain, e-business impact on the improvement of firm's financial performance of the company is debatable. Studies on the e-business benefits regard e-business solutions as an important source of competitive advantage. E-business benefits are the positive impact of e-business on different business processes. This includes an increase in profits and/or sales due to e-business solutions. Electronic business methods enable companies to link their internal and external data processing systems more efficiently and flexibly, to work more closely with suppliers and partners, and to better satisfy the needs and expectations of their customers. E-business involves business processes spanning the entire value chain: electronic purchasing and supply chain management, processing orders electronically, handling customer service, and cooperating with business partners. Special technical standards for e-business facilitate the exchange of data between companies. E-business software solutions allow the integration of intra and inter firm business processes.

The study established that E-business practices would lead to increased number of customers, reduction in cost, increased customer satisfaction, efficiency in operations and increased revenue. It was also found that the superior software has given the company a host of competitive advantages. The study established that the fleet management software enables the company to enjoy low cost monthly services, to serve more customers, reduce fuel costs, cut overtime hours, and reduce vehicle maintenance cost. The in-vehicle sensors enable complete vehicle monitoring to help reduce possible losses of assets. The software also maintains a historical record of vehicle routes, breadcrumbing, and route analysis. In clearing and forwarding, Invoicing is controlled by software and data is saved on clouds so that it can be retrieved on line in case of any destruction. The company also has invested in a large fleet of different types that has given them cheap transportation, flexibility and economies of scale.

The study also established that the company is a good taxpayer. This gives confidence to their customers especially in the clearing and transfer of cargo. This improves customers' loyalty. The researcher also found out that billing is on line so that clients can get their charges from their offices and the calculation of charges is based on information input on probable date of release of goods. Confirmation of bank payment is on line due to on line banking. This saves clients the hustles of unnecessary delays and cost. It was also established that all fleet of vehicles are fitted with the latest satellite trackers enabling Multiple Solutions Track and Trace to be updated with accurate positioning of the cargo being carried. This enhances reliability to customers as it makes it easy to trace cargo on transit. In internal container depot, the company adopts E-business best practices to avoid the off shelf package which is rigid. This helps to avoid frustrating customers, to focus on turnover and to establish competitive rates to get more business. The ICD gates are automated. Immediately the cargo arrives at the gate, the system send alert message to the customer care desk, the ICD operator and the importer that the goods have arrived. This closes loopholes that may cause delays and enables importers to quickly arrange for clearance of the goods. This improves efficiency in dealing with customers. The e-business practices therefore have a significant positive effect in enhancing competitive advantage.

4.4 Factors that influence adoption of E-business Practices

These factors were divided into knowledge of e-business, available infrastructure, cost of e-business implementation and technical skills and IT knowledge of staff. The study established the significance of internet reliability, security and access to computers as key aspects of infrastructure affecting adoption of E-business practices. The internet security and reliability was given priority over access to computers as decision making aspect. It was also established that affordability of the business is a key driving cost factor when E-business is

adopted. It shows that the business of the company would be cheaper with E-business. It also shows that high maintenance cost and cost of internet would also influence e-business adoption. The study also established that both the employees' knowledge of computers and existence of workshops and training affect adoption of e-business in the company. It was further established that the benefits of e-business to the company was the major factor considered in adopting e-business practices. These benefits are based on the concept of competitive advantage.

4.5 Discussion of Findings

The findings of this study established that Multiple Hauliers (E.A) Limited has adopted a number of E-business practices in fleet management, clearing and forwarding and internal container depot. The research established that the company has fleet management software that has the capacity to supervise, manage, locate, schedule and maintain vehicle fleets. The software allows the company to schedule and plan recurring routes as well as manage and even adjust dynamic routes at just a moment's notice. The software also shows real-time vehicle locations, customers, and routes. It also sends routes and instructions to drivers with the click of a mouse. The in-vehicle sensors enable complete vehicle monitoring. Customizable driver forms also allow the company to tailor the business needs. The software also maintains a historical record of vehicle routes, breadcrumbing, and route analysis.

In clearing and forwarding, Invoicing is controlled by software and data is saved on clouds so that it can be retrieved online in case of any destruction. The researcher found out that billing is online so that clients can get their charges from their offices and the calculation of charges is based on information input on probable date of release of goods. Confirmation of bank payment is online due to online banking. This saves clients the hustles of unnecessary delays and cost.

The internal container depot (ICD) gates are automated. Immediately the cargo arrives at the gate, the system send alert message to the customer care desk, the ICD operator and the importer that the goods have arrived. This closes loopholes that may cause delays and enables importers to quickly arrange for clearance of the goods. When containers enter the ICD, they are fitted with special seals that are customized with container and customer details. This information is picked up by the top loader to help the machine operator locate containers during loading. The system has the capacity to compute time of stay of the containers which is necessary to profile ICD clients in terms of how fast they remove their goods. Profiling is necessary during staking of the containers so that when new shipment comes in, those that are usually cleared faster are placed on first moving lanes while those that stagnate are staked at the back lanes. At the exit gate, the system picks information from the electronic seal which includes the truck number, identification number of the driver, the container details and send it to the importer and the operator signaling the release of the container. These applications, the study established have helped the company to get real time updates, reduce human movements in the yard, facilitate reporting and reduce fraud. Automated warehousing allows reports to be transmitted easily to the main system.

In the case of competitive advantage, E-business solutions create diverse benefits for the business. Although the integration of e-business solutions in the usual business processes may improve all activities throughout the value chain, e-business impact on the improvement of firm's financial performance of the company is debatable. Studies on the e-business benefits regard e-business solutions as an important source of competitive advantage. E-business benefits are the positive impact of e-business on different business processes. This includes an increase in profits and/or sales due to e-business solutions. Electronic business methods enable companies to link their internal and external data processing systems more

efficiently and flexibly, to work more closely with suppliers and partners, and to better satisfy the needs and expectations of their customers. E-business involves business processes spanning the entire value chain: electronic purchasing and supply chain management, processing orders electronically, handling customer service, and cooperating with business partners. Special technical standards for e-business facilitate the exchange of data between companies. E-business software solutions allow the integration of intra and inter firm business processes (Research data, 2014).

The study established that E-business practices would lead to increased number of customers, reduction in cost, increased customer satisfaction, efficiency in operations and increased revenue. This is consistent with an earlier study by Zhu (2004). He found a positive relationship between e-business capabilities and company's improved financial performance. It was also found that the superior software has given the company a host of competitive advantages. The study established that the fleet management software enables the company to enjoy low cost monthly services, to serve more customers, reduce fuel costs, cut overtime hours, and reduce vehicle maintenance cost. This study result is consistent with a research done by Soto-Acosta & Meroño-Cerdan (2008) which established that e-business capabilities had a positive impact on procurement costs, cost of logistics and inventory and relation to suppliers. The in-vehicle sensors enable complete vehicle monitoring to help reduce possible losses of assets. The software also maintains a historical record of vehicle routes, bread crumbing, and route analysis.

The researcher also found out that billing is on line so that clients can get their charges from their offices and the calculation of charges is based on information input on probable date of release of goods. Confirmation of bank payment is on line due to on line banking. This saves clients the hustles of unnecessary delays and cost. This is consistent with a study conducted

by Hedberg, Dahlgren, Hansson and Olve, (1997) who carried out a survey on the influence of E-commerce on customer-facing operations, relationships with suppliers, and internal operations throughout the whole organization and found out that it improves operational performance and hence customer relations. It was also established that all fleet of vehicles are fitted with the latest satellite trackers enabling Multiple Solutions Track and Trace to be updated with accurate positioning of the cargo being transported. This enhances reliability to customers as it makes it easy to trace cargo on transit.

At the internal container depot (ICD), the gates are automated. Immediately the cargo arrives at the gate, the system send alert message to the customer care desk, the ICD operator and the importer that the goods have arrived. This closes loopholes that may cause delays and enables importers to quickly arrange for clearance of the goods. This improves efficiency in dealing with customers. The e-business practices therefore have a significant positive effect in enhancing competitive advantage. The study established a host of factors affecting adoption of E-business practices. These factors are divided into knowledge of e-business, available infrastructure, cost of e-business implementation and technical skills and IT knowledge of staff (Research data, 2014).

The study established the significance of internet reliability, security and access to computers as key aspects of infrastructure affecting adoption of E-business practices. The internet security and reliability was given priority over access to computers as decision making aspect. It was also established that affordability of the business is a key driving cost factor when E-business is adopted. It shows that the business of the company would be cheaper with E-business. It also shows that high maintenance cost and cost of internet would also influence e-business adoption. The study also established that both the employees' knowledge of computers and existence of workshops and training affect adoption of e-business in the

company. It was further established that the benefits of e-business to the company was the major factor considered in adopting e-business practices. These benefits are based on the concept of competitive advantage. These findings are consistent with an earlier study Matopoulos, Vlachopoulou and Manthou (2012). They studied understanding the factors affecting e-business adoption and impact on logistics processes. They found out that E-business adoption is not exclusively a matter of resources. Increased e-business adoption and impact are caused by increased operational compatibility, as well as increased levels of collaboration. In terms of e-business impact, they found out that it leads to cycle time reductions and quality improvements.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings and conclusion of the study. The study sought to establish the adoption of e-business by Multiple Hauliers (E.A) Limited as a strategy in achieving competitive advantage and to determine the factors that influence adoption of e-business for competitive advantage by the company.

5.2 Summary

The study established that e-business practices has been adopted and implemented by the company in the departments of fleet management, clearing and forwarding and internal container depot. It was also established that e-business practices helped the business in maintenance of inventory, proper maintenance of inventory, compliance, cost reduction, reduced delays, data safety and improved customer service. All these benefits are expected to give the company its competitive advantage.

It was also found out that the company has adequate infrastructure to implement e-business. Most of the respondents have access to computer technology with a relative increase also having computer software available in the business premises. In addition, the employees demonstrated adequate skills to implement e-business acquired through IT training, Internet user skills and knowledge of use of computer software. These skills and knowledge are improved by having employees attend courses to improve computer skills. The study also found out that respondents consider the cost of implementing e-business practices in their business to be a bit prohibitive due to high costs of internet subscription and other related services such as computer maintenance. The study further classified the factors that influence

adoption of e-business into knowledge of e-business benefits, existing ICT infrastructure, cost of e-business implementation and available ICT skills and knowledge of the employees. The study established that the benefits of e-business to the company were the major factor considered in adopting e-business practices. These benefits are based on the concept of competitive advantage.

5.3 Conclusion

The research concludes that the company adopts e-business in all its departments. These departments include fleet management, clearing and forwarding and internal container depot. The extent of adoption of e-business is determined by a number of factors including knowledge of benefits of e-business by the employees, availability of infrastructure and technical skills and know-how and the cost of e-business. From the study, the most important factor to influence adoption of e-business practices is the employees' knowledge of benefits derived from e-business. This forms the basis on which the business puts in relevant effort to adopt and successfully implement e-business practices for competitive advantage.

The objectives of the study were met; the first which was to establish the adoption of e-business by Multiple Hauliers (E.A) Limited as a strategy in achieving competitive advantage. The study found out that company adopts e-business practices in fleet management, clearing and forwarding and internal container depot. On the second objective, the study found out that the factors that influence adoption of e-business include knowledge of e-business benefits, existing ICT infrastructure, cost of e-business implementation and available ICT skills and knowledge of the employees. From the study, the most important factor to influence adoption of e-business practices is the knowledge of benefits derived from e-business. This forms the basis on which the business puts in relevant effort to adopt and successfully implement e-business for competitive advantage.

5.4 Recommendations for Policy and Practice

From this study, the following recommendations for policy and practice are advanced: Since e-business is increasingly becoming an important tool for businesses to gain a competitive advantage and in turn drive economic growth, the government should come up with relevant policies that will support the education of owners and employees of different companies on importance of adoption of e-business and also improve on the current infrastructure available to companies. This is based on the finding in this study that the main consideration in adopting e-business is the knowledge of the benefits accruing from its use. In addition, owners and employees of companies should be encouraged to regularly attend workshops and courses to constantly improve on their technical skills and knowledge of e-business given the fickle nature of Information Technology.

5.5 Limitations of the Study

Since the respondents were senior managers, time was a constraint in that they were busy attending to managerial duties and some were not able to give ample time to answer the questions. Consequently, this resulted to a few responses received from the respondents. The study focused on senior managers in each department who may have not been directly involved in the actual work process where e-business is embraced. This may lead to biasness in the analysis.

5.6 Suggestion for further research

The study used twenty (20) respondents; it should be repeated using a larger sample to verify the results. The study also focused on one company within the logistics industry. Another study should be conducted comprising of several firms to confirm whether the same conclusion can hold. Since the identified core factor of consideration in adoption of e-

business is the knowledge of benefits derived, the owners and employees of companies must be educated on the importance and benefits of e-business application. The knowledge by the owners and employees on the benefits of ICT tools would drive the increased and sustainable adoption of e-business in the logistics sector in the country. Accordingly, there is need for further studies to be done to investigate easy and sustainable approaches that can be employed to educate owners and employees of logistics companies on the benefits of e-business practices in business. This kind of a study would build on the existing body of knowledge and give greater insights on how e-business can be adopted faster and easily for greater growth of the logistics sector in Kenya.

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APPENDIX I: LETTER OF INTRODUCTION

UNIVERSITY OF NAIROBI,

SCHOOL OF BUSINESS,

P.O BOX 30197 NAIROBI

Dear Sir/Madam,

RE: ADOPTION OF E-BUSINESS IN ACHIEVING COMPETITIVE ADVANTAGE IN MULTIPLE HAULIERS E.A. LTD

The above subject matter refers.

I am a Postgraduate student undertaking a Master of Business Administration (MBA) degree at the University if Nairobi. I am currently undertaking a research on the title outlined above. Your organization has been chosen to be used for this research. I would therefore like to request for your assistance in completing the interview guide to enable me complete the research. The information you provide will be treated with strict confidence and will only be used for academic purposes (this research).

Your cooperation in completing the questionnaire will be highly appreciated.

Yours faithfully,

SHIDAH KHAMILA

MBA student

APPENDIX II: INTERVIEW GUIDE

PART A: BACKGROUND OF RESPONDENTS

1. Name of respondent (Optional)_____
2. What position do you currently hold_____
3. Time worked at Multiple Hauliers (E.A)_____

PART B: E-BUSINESS PRACTICES AT THE MULTIPLE HAULIERS E.A. LTD

A. FLEET MANAGEMENT DEPARTMENT

1. What are the main reasons for adopting E-business practices in fleet management?
2. What are the E-business practices adopted in the following areas of fleet management:
    a. Procurement of motor vehicles
    b. Assignment of motor vehicles
    c. Personal use of motor vehicles by the staff
    d. Management of motor vehicles in terms of fuel control, vehicle insurance and vehicle replacement
    e. Guidelines for drivers
    f. Hiring, training and deployment of human resources
3. What benefits has the company achieved by adopting E-business practices in the above areas

B. CLEARING AND FORWARDING

4. Does the company have a policy covering the activities of clearing and forwarding?
5. Has the company computerized the following activities?
    a. Receiving the goods from the factories or premises of the principal or his agents
    b. Warehousing these goods
    c. Receiving dispatch orders from the principal

d. Arranging dispatch of goods as per the directions of the principal by engaging transport on his own or through the authorized transporters of the principal

e. Maintaining records of the receipt and dispatch of goods and the stock available at the warehouse

6. What are some of the difficulties that the management has experienced when computerizing operations in this department?
7. What advantages has the company experienced by adopting computer-based systems in the above activities?

C. INTERNAL CONTAINER DEPOT

8. What are the company's objectives in adopting E-business practices?
9. What specific E-business practices have been adopted in the following areas:

a. Receipt and dispatch of cargo

b. Stuffing and stripping of containers

c. Transit operations

d. Customs clearance

e. Temporary storage of cargo and containers

f. Maintenance and repair of container units

10. What are the benefits that the company has experienced by adopting E-business practices in the above areas?

PART C: FACTORS THAT INFLUENCE ADOPTION OF E-BUSINESS

Kindly indicate the extent to which you agree or disagree with the statement. Use the five pointer scale of 1-5 where 1=Not at all 2=Little extent 3=Moderate extent 4=Great extent 5= Very great extent	**If we adopt e-business:**				
	Not at all	**Little extent**	**Moderate extent**	**Great extent**	**Very great extent**
KNOWLEDGE OF BENEFITS OF E-BUSINESS	**1**	**2**	**3**	**4**	**5**
1. The business would operate more efficiently					
2. Reduced business costs					
3. Increased revenue					
4. Increased number of new customers					
5. Improved overall customer satisfaction					
INFRASTRUCTURE					
6. The company has access to computer technology					
7. There is assured internet security					
8. Availability of fast and reliable Internet service provider					
COST OF E-BUSINESS IMPLEMENTATION					
9. To use computer technology the business is affordable					
10. It is affordable for the business to subscribe to the internet					
11. To pay for computer support for the company is affordable					
12. Computer maintenance costs are too high					
TECHNICAL SKILLS AND ICT KNOWLEDGE OF STAFF					
13. Employees know how to use the internet					
14. Employees know how to use computer software and ICT tools					
15. Employees regularly attend workshops to improve their computer skills					

PART D: EXTENT OF INFLUENCE IN ADOPTION OF E-BUSINESS

Kindly rate the following factors in the order of their importance in influencing adoption of e-business by the company using the scale of 1-5 where 1=Very Important 2=Important 3=Neutral 4=Not very Important 5= Not at all important	**Is it?**				
	Very Important	**Important**	**Neutral**	**Not Very Important**	**Not at all Important**
	1	**2**	**3**	**4**	**5**
1. Knowledge of e-business benefits					
2. Infrastructure					
3. Cost of e-business implementation					
4. Technical Skills and IT knowledge of staff					